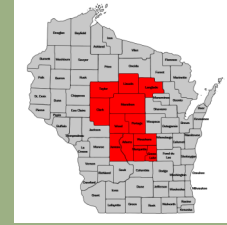


Extension Central News



Winter Edition 24-25

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CLIMATE-SMART COMMODITIES PARTNERSHIP

The Farmers for Soil Health program provides technical and financial assistance to farmers planting cover crops in select states. It is a farmer-led cover crop program that advances the use of soil health practices, meets sustainability goals and can improve farmer profitability.

We aim to improve soil health by encouraging farmers to expand their adoption of cover crops, to reach 30 million U.S. acres by 2030.

PROGRAM DETAILS

- Enrollment is open now.
- The program is a three-year commitment.
- Crop fields in a corn and/or soybean rotation will be eligible for transition incentives totaling \$50 per new acre of cover crops across three years.
- Signing incentives of \$2 per acre are available for existing cover crops on corn and soybean fields.
- The program requires participation in measurement, reporting and verification to demonstrate progress toward the program's goal.

EXTENSION CENTRAL NEWS

A cooperative effort of multiple Central Wisconsin Counties and Wisconsin Extension.

Our Mission

To be the primary source of research based agricultural information and education for the agricultural community in Central Wisconsin.

ENROLLMENT CONTACT

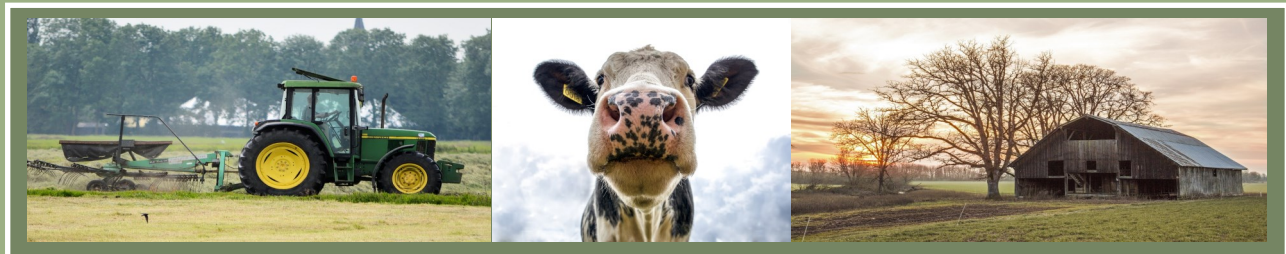


Teagan Duffy
WI Soil Health Specialist
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**Conservation Technology
Information Center**

Farmers for Soil Health is lead by the Soy Checkoff, Pork Checkoff, and National Corn Growers Association with special support from the American Soybean Association, National Fish and Wildlife Foundation, The Sustainability Consortium, National Association of Conservation Districts, University of Missouri's Center for Regenerative Agriculture, National Center for Appropriate Technology's Appropriate Technology Transfer for Rural America (NCAT-ATTRA), Walton Family Foundation, DTN, Soil Health Institute and USDA-NRCS.

Visit us online at FarmersForSoilHealth.com.



Camelina as a Cover Crop - field photos from Juneau County

By Anastasia Kurth

There has been recent interest in winter camelina being used as a cover crop in Wisconsin, giving farmers an option other than cereal rye for a late-planted, overwintering cover. Beyond just adding some diversity to our winter cover, camelina has other potential benefits to our cropping systems, including less nitrogen tie up before corn and providing pollinator habitat in the early spring when little else is flowering in agricultural fields.

Extension (Regional Crops Educators Anastasia Kurth, Sam Bibby, and Will Fulwider along with Ag Water Quality Outreach Specialist Chelsea Zegler) is evaluating winter camelina's capacity to fill a crucial role of cereal rye cover crops in scavenging nitrogen leftover in the soil, preventing nitrate loss to the environment. Nitrates can infiltrate groundwater and pose risks to human health at elevated levels. With four farmer-collaborators who all planted winter camelina in strip trials along with cereal rye and a no cover control after soybeans, we are evaluating post-harvest and pre-plant soil nitrogen levels, biomass production, and subsequent corn yields along with employing a, at least to our knowledge, new-to-Wisconsin method of measuring nitrogen loss to the environment: resin puck lysimeters. These relatively inexpensive devices, \$5-10, sandwich a nitrate selective resin often used in home water filtration systems between layers of sand and mesh in a pvc pipe. The pvc puck is then placed in a trench dug horizontally from an access hole about 20 inches below the surface to catch nitrogen leaving the root zone of an undisturbed soil column. These pucks were installed immediately prior to cover crop planting and will be removed just before corn planting to compare the nitrogen leaving the fields between the camelina, cereal rye, and no cover control.



Juneau County is lucky to have a participating farmer-collaborator in Mauston. Drone-seeded winter camelina was flown over soybean in mid-September. Lysimeters were installed in early October after soybean harvest, and remaining winter camelina and winter rye treatments were drilled after lysimeter installation. This project is expected to last two years. Stay tuned for updates and research conclusions as the project progresses.

Resin puck lysimeter nitrate measuring device.

Below are some photos of winter camelina treatments taken on October 28, 2024.



Drone-seeded (left) and drilled (right) winter camelina. Drone-seeded winter camelina has a growth advantage with an earlier planting date.

This project is expected to last two years. Stay tuned for updates and research conclusions as the project progresses.

Are Your Fields Begging for Potassium?

Matt Lippert; Regional Extension Dairy Educator in Clark, Marathon and Wood Counties, Wisconsin

Data from the Fertilizer Institute show that many states average soil tests are critically low in potassium. (See Figure 1.) This is especially true for states that produce a lot of forage. Corn yielding 200 bushels per acre and 60-bushel soybean crops remove about 60 pounds of K₂O per acre. If the same corn crop is harvested as silage about 240 pounds of K₂O is removed. Four times more K removal. This magnification of extra potassium removal for forage is much greater for potassium than it is for phosphorus. Like corn silage, 4-ton dry matter yield alfalfa also removes about 240 pounds of K₂O (Wisconsin Nutrient Management Fast Facts Magazine 2024; Wisconsin Extension Crops and Soils Program). The Fertilizer Institute summarized soil test numbers and found in Wisconsin as an example that 76% of submitted soil samples were below critical levels of Potassium, down over 10 units from 2000. In many fields potassium levels are very low and getting lower. Low soil K also affects the efficiency of nitrogen utilization. Protein is nitrogen, so in addition to yield loss, low potassium may be affecting protein levels in forages. Low potassium levels also affect stand longevity of perennial crops such as alfalfa.

In livestock operations, manure returning to the field may nearly match the rate of removal of K from the silage harvested. It is a good, but not perfect match. Doing math, having actual tests of the liquid manure, it is often the situation that while phosphorus levels build, potassium levels deplete. If manure levels are limited to hold or lower phosphorus levels, typically potassium levels will drop unless additional potassium is applied. On farms where maximum forage production is achieved the removal of potassium can be rapid. Many farms are now double cropping a winter cereal to harvest more forage per acre. This additional forage crop typically removes as much potassium as a full season normal grain crop of corn or soybeans.

If no manure is applied, 400-600 pounds of 0-0-60, or equivalent, is needed to simply maintain the potassium level depending on yield. The price of potash fluctuates, recently many producers found themselves facing low soil potassium levels and high potash prices. This necessitated that when potassium prices moderate fertility programs should not only maintain but also build soil potassium levels. Droughts, wet spells, soil clay levels may play with the soil potassium test, but too often producers avoid applying potassium while trying to get the soil to release the potassium it holds as unavailable. Yes, soil mineralization of potassium is possible, but it is also unpredictable, while the amount removed from forage harvest is undeniable.

Wisconsin Nutrient Fast Facts Magazine also contains this gem-

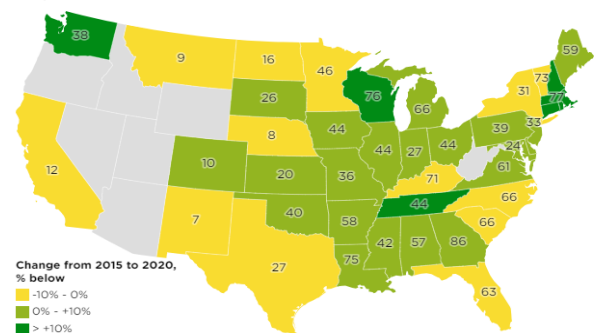
“6— Forage from fields with excessively high K level: Test forage for excessive K levels (> 3%) to prevent increased incidence of milk fever and other related illnesses in cattle.”

Sometimes producing low potassium forage is considered to protect fresh cows from having milk fever at calving time. It takes a long time to take a field with adequate to high potassium and convert it to a field that is low enough in K to produce low potassium forage. While doing this the yield on the field will also drop. As land becomes more valuable, can you afford to intentionally create poorly performing fields. There are other more reliable ways to protect against milk fever, and they can be used in conjunction with forage testing to provide safe rations for transition cows. You can reliably balance for dietary Cation-Anion Difference (DCAD) by using anionic products in the diet. These can achieve stronger DCAD effects than low K forages alone. Also when using DCAD products, a separate segregated

(Figure 1)

Sample percentage testing below K critical level

Map shows the percentage of state samples with below-critical levels of potassium (K) in 2020. States in yellow had fewer samples with below-critical levels than the previous testing, in 2015. States in green had more. States with fewer than 2,000 samples are not shown.



Source: The Fertilizer Institute

Successful Farming

inventory forage used just by the transition cows is no longer needed. There are other products as well, Zeolite A is a calcium binder that has been shown to be effective in preventing milk fever. These products do make for more expensive rations, but they are fed for only a few weeks in the cow's lactation cycle, and are not expensive if you account for more effective control of transition time metabolic disorders and higher total lactation production, the extra cost will make you money. Then we add the higher yield from a field adequate in potassium and the ease of managing fields and inventories by not producing low potassium forages as an additional benefit.

Lactating cows generally benefit from higher levels of potassium in the ration, this is the main herd being fed, yet another reason to get the soil potassium soil test at least to optimum.

Finally, we hear of luxury consumption of potassium. This should be found in high forage test or tissue test levels of potassium in forages.

Figure 2. K levels in forage samples. Courtesy Rock River Labs, data from the Midwest since 2018.

AFeedType	N	p15	Mean	p85	StDev
Corn Silage	193845	0.738	0.909	1.067	0.176
Grass Hay	17740	1.058	1.734	2.385	0.680
Legume Silage	102228	2.146	2.604	3.051	0.464
Non-Legume Haylage	37399	1.863	2.459	3.029	0.592
Other	35230	1.660	2.176	2.670	0.527

For the example of Grass Hay which has a wide range of fertility management we see that the potassium level doubles from the 15th percentile to the 85th percentile. Also note the high levels found in legume silages. What I observe in this data set is that many forages are grown in very potassium limiting situations, also on farms with high, (luxury?) levels of potassium, if the forage is being returned to the field as manure, is there a problem to this? Concentrates fed to cows are low in potassium, the high potassium in forages are beneficial for lactating cows. It is possible for forages that are sold that high potassium is a wasteful practice, but otherwise, ration K balance, stand longevity, nitrogen-protein development all benefit from potassium levels in these forages.

Soil tests, forage samples, lactating cow rations- they all make the case that too many err on the side of too little instead of too much soil applied potassium fertilizer.

A COLLABORATIVE EFFORT BETWEEN FARMERS AND RESEARCHERS...

VALUING THE MARGINS

This project is seeking row crops farmers who want to learn more about in-field profitability and opportunities to save money and improve conservation using yield monitor data.

THE BIG IDEA

Some row crop fields have problem spots that just don't produce very well. Even in otherwise profitable fields, these areas just don't turn a profit.

Farmers could improve their bottom line and provide their communities with cleaner water, cleaner air, and more stable weather by managing these areas differently. For example, by converting problem spots to grassland.

But how bad does a problem spot need to be before it becomes unprofitable? When does it make sense to change how these spots are managed?

THE PROJECT

1. Mapping profitability

We want to understand the amount and location of profitable and unprofitable areas within row crop fields.

With help from our farmer partners, we will map profitability within row crop fields using yield monitor data and records of what was applied and how much it cost.

Farmers will get copies of the maps of their own fields and summaries of the trends we find across farms.

2. Comparing the value of production and conservation

We want to understand how the value of crops compares to the benefits of conservation, such as perennial grasslands.

We will estimate the dollar value of natural resources like clean water, clean air, and more stable weather, and compare how much of these benefits are provided by row crops versus grasslands.

This step would not require anything from our farmer partners, but we are happy to share the results if interested.

3. Understanding barriers to change

We want to understand what our profitability maps get right or wrong, and how management decisions about unprofitable areas are made.

We would like to interview our farmer partners about their perspectives, to help researchers and groups like NRCS and Pheasants Forever better support farmers in their production and conservation goals.

All responses will be kept anonymous, but farmers will receive summaries of any trends we find.



PARTICIPANTS

REQUIREMENTS

- Yield monitor data for multiple years
- Records of expenses and rates for seed, fertilizer, herbicide, and pesticides
- Willing to share data and participate in 1-hour interview (responses anonymous)

BENEFITS

- Profitability maps of your fields
- Better understanding of opportunities for improving profits and conservation
- \$500 to thank you for your time and expertise



CLARE DIETZ

cdietz2@wisc.edu
(563) 599 7631

Please feel free to email, call, or text me with any questions, suggestions, or interest in participating!

Alternatively, fill out this survey to find out if you qualify for this project:



To read the articles below, use the links provided.

Article: Adaption to Extreme Weather Events with Cover Crops

<https://cropsandsoils.extension.wisc.edu/articles/adaptation-to-extreme-weather-events-with-cover-crops/>

Article: Manure Tracker App Making Life Easier

<https://cropsandsoils.extension.wisc.edu/manure-tracker-app-making-life-easier/>



2025 Virtual Nutrient Management Training for Farmers:
Use the link below for needed information/dates.

<https://cropsandsoils.extension.wisc.edu/upcoming-event-2025-virtual-nutrient-management-training-for-farmers/>



January 13-14, Kalahari Resort, Wisconsin Dells
<https://wiagribusiness.org/2025-ag-classic/ociation>



Sauk & Juneau Counties Crop Updates

Ag news for Sauk and Juneau Counties from UW-Madison Extension



Sign up for the monthly Sauk & Juneau Counties Crop Updates email newsletter in addition to the Extension Central Newsletter.

Sign up here: <https://signup.e2ma.net/signup/2007656/1927697/> or scan the QR code below.



February 6-7, Kalahari Resort, Wisconsin Dells
<https://cornsoyexpo.org/>



2025
SYMPOSIUM
February 17-19 • Chula Vista, WI Dells

Hosted by Midwest Forage Association, Wisconsin Custom Operator, & Professional Nutrient Applicators Association of Wisconsin

February 17-19, Chula Vista Resort, Wisconsin Dells
<https://midwestforage.org/>

GrassWorks Grazing Conference

The Midwest's premiere Grazing learning and networking event

Thursday, January 23 – Saturday January 25, 2025

Chula Vista Resort and Conference Center, Wisconsin Dells

<https://grassworks.app.neoncrm.com/np/clients/grassworks/event.jsp?event=20>

NUTRIENT MANAGEMENT PLANNING

This course is designed to develop a nutrient management plan that will meet the NRCS 590 Standard requirements. Participants will enter soil test information into the software program, SNAP-Plus, and will develop a plan using the data. Subjects include conservation plans, field mapping, soil test analysis, manure management and crop selection and requirements.

SOIL TESTING PAYMENTS Participants will receive reimbursement for up to \$750 of eligible soil testing costs. (Please contact your County's Conservation Department with any questions regarding this reimbursement.)

COURSE ENROLLMENT INFORMATION

Please register for the Full Course if you are new to Nutrient Management Planning. If you have already taken the Full Course in the past, please register for the Refresher Course.

Additional family members and/or farm employees may attend with a registered attendee at no additional charge.



These courses are in partnership with the county conservation departments from Marathon, Clark, Lincoln, Portage, Taylor and Wood counties.

3 WAYS TO REGISTER:

1. Complete form found on reverse side and follow mailing instructions
2. Visit one of the websites below and search by class type or class # found next to each class

NTC Classes

<https://bit.ly/nutrient-management-planning>

Mid-State Classes

<https://courses.mstc.edu/>

3. Call us at **715.803.1965**

Participants eligible to receive a stipend payment of up to \$700 upon completion of a nutrient management plan. Reimbursements are provided by a DATCP Nutrient Management Farmer Education Grant and administered by the county conservation departments.



**WORKFORCE TRAINING +
PROFESSIONAL DEVELOPMENT**

FULL COURSE - 12 HOURS TOTAL (THREE 4-HOUR SECTIONS)

Fridays, January 10 - 24, 2025 10:00 a.m. - 3:00 p.m.	\$260*
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NTC Medford Campus

Wednesdays, January 15 - 29, 2025 10:00 a.m. - 3:00 p.m.	\$260*
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NTC Wausau Campus

Thursdays, January 16 - 30, 2025 10:00 a.m. - 3:00 p.m.	\$260*
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NTC Spencer Campus

Thursdays, February 13 - 27, 2025 10:00 a.m. - 3:00 p.m.	\$260*
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NTC Spencer Campus

REFRESHER COURSES - 8 HOURS TOTAL

Fridays, January 10 & 17, 2025 10:00 a.m. - 3:00 p.m.	\$130*
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NTC Medford Campus

Wednesdays, January 15 & 22, 2025 10:00 a.m. - 3:00 p.m.	\$130*
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NTC Wausau Campus

Thursdays, January 16 & 23, 2025 10:00 a.m. - 3:00 p.m.	\$130*
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NTC Spencer Campus

Thursdays, February 13 & 20, 2025 10:00 a.m. - 3:00 p.m.	\$130*
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NTC Spencer Campus



**WORKFORCE & ECONOMIC
DEVELOPMENT**

FULL COURSE - 12 HOURS TOTAL (THREE 4-HOUR SECTIONS)

Tuesdays, March 11 - 25, 2025 10:00 a.m. - 3:00 p.m.	\$260*
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Wood County River Block, Wisconsin Rapids Class #25793

Thursdays, March 13 - 27, 2025 10:00 a.m. - 3:00 p.m.	\$260*
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Mid-State Stevens Point Campus Class #25794

REFRESHER COURSES - 8 HOURS TOTAL

Tuesdays, March 11 & 18, 2025 10:00 a.m. - 3:00 p.m.	\$130*
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Wood County River Block, Wisconsin Rapids Class #25795

Thursdays, March 13 & 20, 2025 10:00 a.m. - 3:00 p.m.	\$130*
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Mid-State Stevens Point Campus Class #25796

Registration Form

Last Name _____ First Name _____ Middle Initial _____

Street Address _____ City _____ State _____ Zip code _____

Home Phone (_____) _____ Birthdate ____/____/____ Email Address _____

I'm interested in the following class (Circle one): Full Course Refresher Course

Location (Circle one): Medford Wausau Spencer (1st Session) Spencer (2nd Session) Mid-State - Wood County River Block Mid-State - Stevens Point Campus

Credit Card: _____ MasterCard _____ VISA Credit Card Number: _____

Expiration Date: _____ Security Code: _____ Signature: _____

The following information is not required, but will help us identify your records should you need an official transcript of attendance. It is kept confidential. Aggregate data on race/ethnicity and high school attendance is used for state and federal funding purposes. Though your response is optional, it is very much appreciated.

Social Security Number _____ or Student ID Number _____

Race/Ethnicity: _____ American Indian _____ Asian _____ Black, not Hispanic _____ Hispanic _____ White, not Hispanic _____ Native Hawaiian/other Pacific Islander

Mail both Mid-State & NTC registration forms with payment to:
Northcentral Technical College Attn: Workforce Training + Professional Development
1000 W. Campus Drive, Wausau, WI 54401



Northcentral
TECHNICAL COLLEGE

WORKFORCE TRAINING +
PROFESSIONAL DEVELOPMENT

MID-STATE
TECHNICAL COLLEGE

WORKFORCE & ECONOMIC
DEVELOPMENT

NUTRIENT MANAGEMENT PLANNING
Winter - Spring 2025

PAT ~ Pesticide Applicator Trainings and Testing

**MUST pre-register and pre-order manual at:
<https://patstore.wisc.edu/secure/home>**

Manuals and Registration are no longer available at local Extension Offices. They must be ordered online from the UW PAT Program.

Juneau County

Date: January 30, 2025
Location: Extension Juneau County 220 E. State St, Mauston
Time: 9:00– 3:30
Contact: 608-847-9332

Sauk County

Date: March 6, 2025
Location: Extension Sauk County
505 Broadway St, Baraboo, WI
Time: 9:00—3:30
Contact : 608-355-3250

Clark County

Date: February 21, 2025
Location: Abbotsford City Hall
Time: 9:00—3:00
Contact: 715-743-5122

Clark County

Date: March 19, 2025
Location: Thorp Fire Hall
Time: 9:00—3:00
Contact: 715-743-5122

Clark County

Date: April 11, 2025
Location: Clark County Courthouse Neillsville
Time: 9:00– 3:00
Contact: 715-743-5122

Marathon County

Date: January 22 OR February 25, 2025
Location: UW Extension Marathon County
212 River Dr. Wausau
Time: 9:00—3:00
Contact: 715-743-5122

Langlade County

Date: January 30, 2025
Location: 840 Clermont St, Antigo, WI
Time: 8:30 Registration
Contact: 715-627-6238

Portage County

Date: February 25, March 6, or March 25, 2025
EXAM ONLY on April 3rd
Location: Portage County Annex Building
Time: 9:00 AM
Contact 715-346-1316

Waushara County

Date: April 11, 2025
Location: Waushara Cty. Government Center
1st Floor 380 S. Townline Rd, Waushara
Time: 9:00– 3:00
Contact: 920-787-0416

Green Lake County

Date: February 25, 2025
Location: Green Lake Cty. Government Center
571 Cty. A Green Lake, WI
Time: 9:00– 3:00
Contact: 920-294-4032

Marquette County

Date: March 9, 2025
Location: 480 Underwood Ave. Montello, WI
Time: 9:00– 3:00
Contact: 608-297-3141

Other Trainings in the area:

Pound Town Hall : February 21
Shawano Court House : March 6
Leona Town Hall : March 25
*contact Scott Reuss at 715-732-7510



Contacts

Please contact your local Extension Office for the following:

- To receive this as an eNewsletter emailed to you
- Any changes to your email address or physical address (if mailing)
- To unsubscribe to this newsletter completely

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