



United States Department of Agriculture

# Natural Resources Conservation Service



DATCP Partner Update Meetings  
April 2024

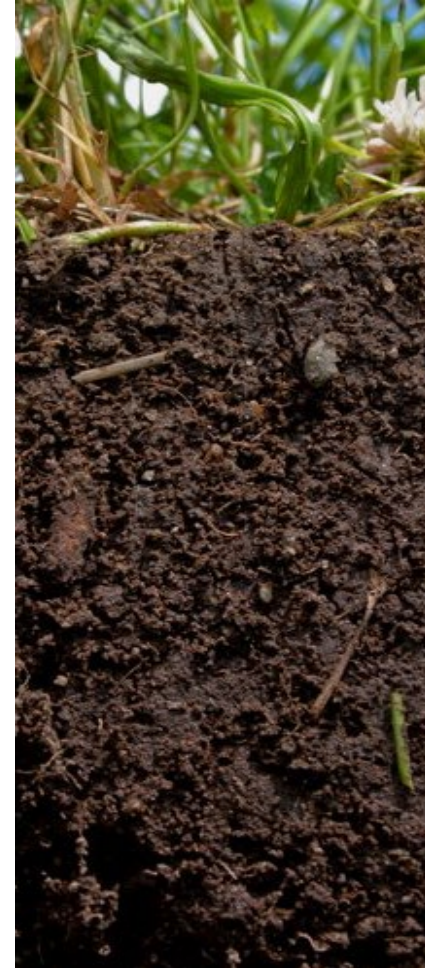


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# Agenda

- **NRCS Nutrient Management 590 Standard update**
- **Soil Health related updates**
  - **CPS 336 - Soil Carbon Amendment**
  - **CEMA 216 - Soil Health Testing**
  - **CEMA 221 - Soil Organic Carbon Stock Monitoring**
- **Inflation Reduction Act (IRA) Program dollars update**



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**NRCS Nutrient Management 590 Standard update:  
SOC Process, timeline, issues.**

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## Revising WI CPS 590 Nutrient Management Timeline/New Ideas and Criteria

- Wisconsin is still using the current 2015 590 Nutrient Management conservation practice standard.
- Will remain with the current standard through FY2025. Adopt new WI 590 for FY2026.
- NRCS using the WI Land and Water Standards Oversight Council (SOC) process to rewrite the 590 standard.
  - We have 12 members that have been meeting monthly since August 2023
  - Early meetings have been focused on understanding/reviewing Wisconsin specific nitrate issues and solutions, and WI bedrock mapping for Silurian Dolomite guidance.
  - Discussed cover crops and nutrient management, crediting manure N after small grain cover crop.
  - Time for public comment/review period probably in early 2025.
  - [Home | Standards Oversight Council | Wisconsin \(socwisconsin.org\)](#)



NRCS CPS 590 Nutrient  
Management



# Nutrient Management Important Issues

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- **Identifying practices/strategies to prevent nutrient losses to groundwater/surface water.**
- **Wisconsin strategy for pollution reduction...adapt from Iowa guidance document.**
- **Revisiting the Phosphorous Index and looking at the P Index threshold. Both sediment P loss and dissolved P loss.**
- **Conversations with cranberry industry WSCGA, nutrient management forms and tech note materials.**
- **NRCS continues to support SnapPlus. New future version V3 web-based.**







# Strategies to trap/prevent excess nitrogen losses to groundwater

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- Adapting the Iowa strategy document for use in Wisconsin.
- Use 2 or more strategies in state or locally identified sourcewater protection areas.
- Practices such as:
  - N-scavenging cover crops.
  - Nitrification, ureas inhibitors or slow release coated products.
  - Sidedress and or split apply N in season.
  - Edge of field practices such as filter strips, field borders, buffer strips.

# Iowa Strategy to Reduce Nutrient Loss: Nitrogen Practices

This table lists practices with the largest potential impact on nitrate-N concentration reduction (except where noted). Corn yield impacts associated with each practice also are shown as some practices may be detrimental to corn production. If using a combination of practices, the reductions are not additive. Reductions are field level results that may be expected where practice is applicable and implemented.

	Practice	Comments	% Nitrate-N Reduction*	% Corn Yield Change**
			Average (SD <sup>†</sup> )	Average (SD <sup>†</sup> )
Nitrogen Management <sup>+</sup>	Timing	Moving from fall to spring pre-plant application	6 (25)	4 (16)
		Spring pre-plant/sidedress 40-60 split Compared to fall-applied	5 (28)	10 (7)
		Sidedress – Compared to pre-plant application	7 (37)	0 (3)
		Sidedress – Soil test based compared to pre-plant	4 (20)	13 (22) <sup>††</sup>
	Source	Liquid swine manure compared to spring-applied fertilizer	4 (11)	0 (13)
		Poultry manure compared to spring-applied fertilizer	-3 (20)	-2 (14)
	Nitrogen Application Rate	Nitrogen rate at the MRTN (0.10 N:corn price ratio) compared to current estimated application rate. <a href="http://cnrc.agron.iastate.edu">ISU Corn Nitrogen Rate Calculator – http://cnrc.agron.iastate.edu</a> can be used to estimate MRTN but this would change Nitrate-N concentration reduction)	10	-1
	Nitrification Inhibitor	Nitrapyrin in fall – Compared to fall-applied without Nitrapyrin	9 (19)	6 (22)
	Cover Crops	Rye	31 (29)	-6 (7)
		Oat	28 (2)	-5 (1)
Living Mulches	e.g. Kura clover – Nitrate-N reduction from one site	41 (16)	-9 (32)	
Land Use	Perennial	Energy Crops – Compared to spring-applied fertilizer	72 (23)	
		Land Retirement (CRP) – Compared to spring-applied fertilizer	85 (9)	
	Extended Rotations	At least 2 years of alfalfa in a 4 or 5 year rotation	42 (12)	7 (7)

# Next National CPS 590?

- National NRCS staff and others are working on revisions internally.
- They may send that draft out for internal review in **mid-late 2024**.
- Any changes may be incorporated into the late 2024/early 2025 draft.
- WI SOC team will have time to look at the new national, before we finish our drafting process.
- Reaching out to ag professionals and different crop sectors of Wisconsin to discuss potential impacts/challenges of 590 criteria changes.
- Final steps....timeline, public comment then SOC team response to comments....may change some language
- **Adopt new WI CPS 590 September 2025 to start implementing it in FY2026.**





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# Questions on the 590 update?



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# Improving Soil Health = Climate Smart Ag



Improved soil health enhances  
soil function, resilience, and carbon storage



# CSAF Soil Health Options

New to Wisconsin in FY24 – Soil Carbon Amendments

## Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List for FY2024



Highlighted activities have been added to the list in FY2024.  
\*Noted activities are added to the list as "provisional."<sup>(2)</sup>

Mitigation Categories <sup>(1)</sup>	Code	Conservation Practice Standard Name <sup>(2) (3)</sup> (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Soil Health	327	Conservation Cover (acres)	E327A	Conservation cover for pollinators and beneficial insects <sup>(2)</sup>
			E327B	Establish Monarch butterfly habitat
	328	Conservation Crop Rotation (acres)	E328A	Resource conserving crop rotation
			E328B	Improved resource conserving crop rotation
			E328E	Soil health crop rotation
			E328F	Modifications to improve soil health and increase soil organic matter
			E328N	Intercropping to improve soil health
			E328O	Perennial grain crop conservation rotation
			329	Residue and Tillage Management, No Till (acres)
	E329B	No till to reduce tillage induced particulate matter		
	E329C	No till to increase plant-available moisture		
	E329D	No till system to increase soil health and soil organic matter content		
	E329E	No till to reduce energy		
	332	Contour Buffer Strips (acres)	None Available	
	336	Soil Carbon Amendment (acres)*	None Available	
	340	Cover Crop (acres)	E340A	Cover crop to reduce soil erosion
			E340B	Intensive cover cropping to increase soil health and soil organic matter content
			E340C	Use of multi-species cover crops to improve soil health and increase soil organic matter
			E340D	Intensive orchard/vineyard floor cover cropping to increase soil health
			E340F	Cover crop to minimize soil compaction
			E340G	Cover crop to reduce water quality degradation by utilizing excess soil nutrients
			E340H	Cover crop to suppress excessive weed pressures and break pest cycles
			E340I	Using cover crops for biological strip till
			E340J	Cover crop to improve moisture use efficiency and reduce salts
			345	Residue and Tillage Management, Reduced Till (acres)
	E345B	Reduced tillage to reduce tillage induced particulate matter		
	E345C	Reduced tillage to increase plant-available moisture		
	E345D	Reduced tillage to increase soil health and soil organic matter content		
E345E	Reduced tillage to reduce energy use			

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Mitigation Categories <sup>(1)</sup>	Code	Conservation Practice Standard Name <sup>(2) (3)</sup> (practice unit)	Code	Conservation Stewardship Program (CSP) Enhancement Activities
Soil Health	386	Field Border (acres)	E386A	Enhanced field borders to reduce soil erosion along the edge(s) of a field
			E386B	Enhanced field borders to increase carbon storage along the edge(s) of the field
			E386C	Enhanced field borders to decrease particulate emissions along the edge(s) of the field
			E386D	Enhanced field borders to increase food for pollinators along the edge(s) of a field
			E386E	Enhanced field borders to increase wildlife food and habitat along the edge(s) of a field
	393	Filter Strips (acres)	E393A	Extend existing filter strip to reduce water quality impacts
	412	Grassed Waterways (acres)	E412A	Enhance a grassed waterway
	484	Mulching (acres)	E484A	Mulching to improve soil health
			E484B	Reduce particulate matter emissions by using orchard or vineyard generated woody materials as mulch
			E484C	Mulching with natural materials in specialty crops for weed control
E484D			Lowbush Blueberry Mulching for Moisture Management	

# Incentivizing Biochar & Compost Applications



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336-CPS-1

**Natural Resources Conservation Service**  
**CONSERVATION PRACTICE STANDARD**  
**SOIL CARBON AMENDMENT**

**CODE 336**

**(ac)**

**DEFINITION**

Application of carbon-based amendments derived from plant materials or treated animal byproducts.

**PURPOSE**

Use this practice to accomplish one or more of the following purposes:

- Improve or maintain soil organic matter.
- Sequester carbon and enhance soil carbon (C) stocks.
- Improve soil aggregate stability.
- Improve habitat for soil organisms.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies to areas of Crop, Pasture, Forest, Associated Agriculture Lands, Developed Land, and Farmstead where organic carbon amendment applications will improve soil conditions.



# CEMA 216 – Soil Health Testing



Monitor impacts of conservation  
practice adoption on key  
soil health indicators

## Basic Soil Health Testing

- SOC, WSA, PoxC, Texture, pH

## Minimal Suite of Soil Health Testing

- SOC, Cmin, WSA, Texture

## Single Indicator Testing

- Any of above or others...

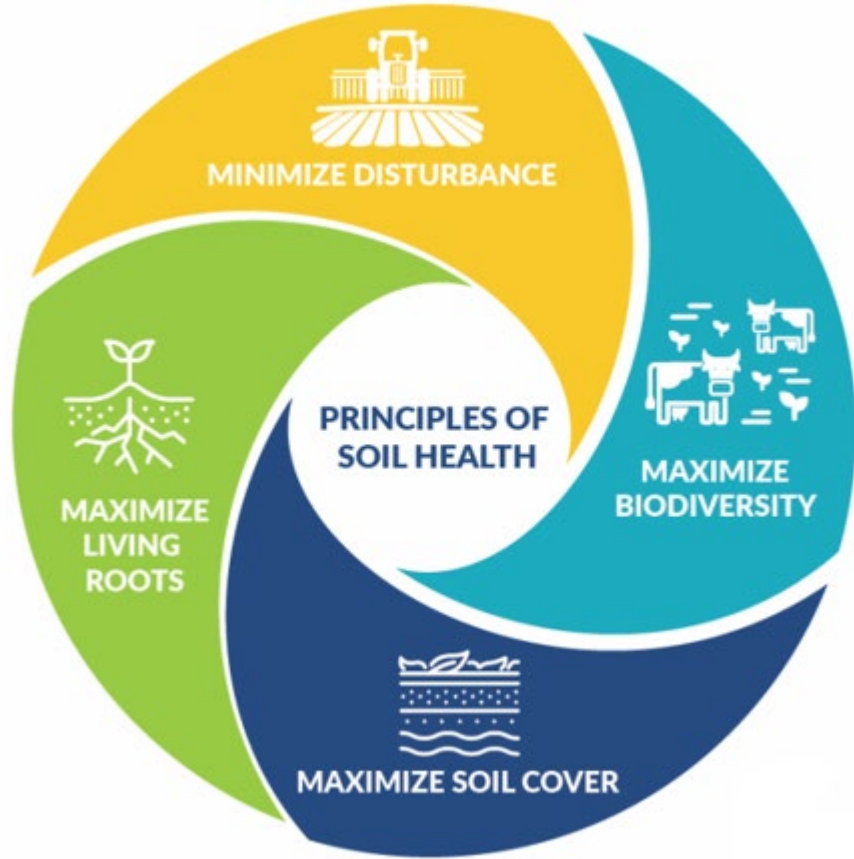
# CEMA 221 – Soil Organic Carbon Stock Monitoring



Estimate current soil carbon stocks and identify trends across land uses and soil types

Monitor impacts of conservation practice adoption on soil organic carbon storage over several years





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# Questions on Soil Health updates?



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# FA Programs Allocations

WISCONSIN Allocation	CSP Farm Bill	CSP IRA	EQIP Farm Bill	EQIP IRA	GLRI	Total
<b>FY23</b>	\$20.5 M	\$4.2 M	\$22.2 M	\$2.7 M	\$9 M	<b>\$58.6 M</b>
<b>FY24</b>	\$21 M	\$13.6 M	\$19.7 M	\$28.6 M	\$9 M	<b>\$91.9 M</b>
<p><b>FY25-</b> We expect funding for IRA to be equal or greater than what we received for FY24, but official allocations have not been communicated as of now.</p>						



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# Final questions?



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