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Emerging Opportunities for North Dakota Producers

Regenerative Pilot Program & 45Z

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Introduction

- Just joined NDSU Extension in the Department of Agribusiness and Applied Economics this August as the new '***Agriculture and Energy Systems Specialist***.'

- Past experience as Assistant Professor in the Department of Agricultural and Resource Economics at the University of Saskatchewan since fall 2021.

- Research focus on producer decision-making, particularly around varietal choices and adoption of nitrogen-efficient practices such as variable rate fertilizer application, EEFs, and split application.

Outline of Presentation

Today I will speak about two connected opportunities for North Dakota agricultural producers:

- The USDA's Regenerative Pilot Program, launched in December 2025;

  &

- The 45Z Clean Fuel Production Credit (final ruling due this month).

Regenerative Pilot Program Launch

- The Regenerative Pilot Program was announced ~1 year ago in December 2025 with funding of $700 million, to '***help American farmers adopt practices that improve soil health, enhance water quality, and boost long-term productivity, all while strengthening America's food and fiber supply.***'

- Repurposes current funding through the Natural Resources Conservation Service (specifically EQIP and CSP), with a focus on a 'unified,' whole-farm approach with a single application.

- Creation of NRCS Chief's Regenerative Agriculture Advisory Council, with quarterly meetings.

Brooke Rollins & RFK Jr. Op-Ed

Opinion

Agriculture and HHS Secretaries: President Trump Delivers a Huge Win for Healthy Farming | Opinion

PUBLISHED
DEC 17, 2025 AT 05:00 AM EST



By Brooke L. Rollins and Robert F. Kennedy Jr.
Secretary of Agriculture; Secretary of Health and Human Services

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June 2026 Executive Order on Regenerative Agriculture



Regen. Pilot Program Expansion & PRAIRIE

- Recent announcement that the Regenerative Pilot Program funding will be increased by ~40% for the upcoming fiscal year, to $1 billion.

- $30 million announced for North Dakota-specific Regenerative Pilot Program funding as part of the ‘Prairie Revitalization and Agricultural Improvements for Resilient, Integrated Ecosystems’ or ‘PRAIRIE,’ with a focus on salinity issues as well as soil health.

- Deadline for applications this fiscal year extended to **November 13th, 2026** through the North Dakota NRCS Office in Bismarck.

45Z Clean Fuel Production Credit Update

- The **45Z Clean Fuel Production Credit** offers a tax credit to biofuel producers for 1) *measures they take* to lower the emissions of their facility as well as 2) *on-farm practices* that reduce the carbon intensity of their inputs.

- Corn, soybean, sorghum and **canola** (new) are covered.

- Zero-till, cover crops, N-inhibitors, and N used per bushel produced all create '***45z value***' (the Regenerative Pilot Program provides support for zero-till and cover crop adoption).

- Finalization of the policy is expected this November.

June 2026 Release of ‘Regenerative Feedstock Rule’

PRESS RELEASE

President Trump Signs Executive Order Advancing Regenerative Agriculture; Secretary Rollins Announces USDA Rule to Unlock Billions for American Farmers



PUBLISHED: June 25, 2026

Reactions to ‘Regenerative Feedstock Rule’ Release

Senator Chuck Grassley – “New biofuel feedstock rule is good step that empowers farmers and helps make clean fuels tax credit work better for them. At the hearing, this month I asked OMB nominee when farmers should expect this news so thank you for putting the rule out.”

Senator Roger Marshall – “The new Regenerative Feedstock Rule from USDA allows Kansas farmers to profit from the soil health practices that many already use on their operations— built on market opportunity, not government mandates. That's putting Farmers First and exactly where MAHA meets ag.”

Representative Jim Baird – “Attention Hoosier farmers! Secretary Rollins and USDA announced a final Regenerative Feedstock Rule that will help farmers access the biofuel market and create more opportunities for American biofuel producers. Glad to see this move from USDA that will strengthen Indiana agriculture and American energy dominance.”

45ZCF-GREET Model and USDA FD-CIC Tool

45ZCF-GREET Model

- A life-cycle analysis (LCA) developed by the Department of Energy and Argonne National Laboratory
- Model and related information downloadable at https://www.energy.gov/cmei/greet.

USDA Feedstock Carbon Intensity Calculator (FD-CIC)

- Online and Excel tool for calculating carbon intensity (CI score) per bushel



Guidelines To Determine Life Cycle Greenhouse Gas Emissions of Clean Transportation Fuel Production Pathways Using 45ZCF-GREET

Rev. September 2026

https://www.energy.gov/cmei/greet

USDA FD-CIC

Version 1.2

Date:	9/11/26
Crop to Model:	Corn
Number of Management Units to Model: (Reset Inputs on All MUs)	1

	MU #1 (Reset MU #1 Inputs)
Management Unit Name (optional):	
Location - State	ND
Location - County	Sheridan
Management Unit Size (acres)	160
Actual average yield per acre (bushels/acre)	122
Expected yield per acre (bushels/acre)	122
Total Synthetic N Applied Per Acre (lbs/acre)	183
(click to navigate to terms Glossary)	
Management Practices	
1) Cover Crop	No cover crop
2) Tillage Practice	None of the above
3) Percent of synthetic N receiving Nitrification Inhibitors (0%-100%)	0%
4) Applied Manure (N content guidance)	
4.1) Manure applied, Type 1	None
Amount of type 1 manure applied (1,000 gal/acre or ton/acre)	0
N content of type 1 manure (lbs/ton or lbs/1,000 gal)	0
4.2) Manure applied, Type 2	None
Amount of type 2 manure applied (1,000 gal/acre or tons/acre)	0
N content of type 2 manure (lbs/ton or lbs/1,000 gal)	0
4.3) Manure applied, Type 3	None
Amount of type 3 manure applied (1,000 gal/acre or tons/acre)	0
N content of type 3 manure (lbs/ton or lbs/1,000 gal)	0
(click to navigate to terms Glossary)	

Results (g CO_2e/bushel)	MU #1	Estimated National Average
Corn Carbon Intensity (CI) Score (g CO2e/bushel)	8,234	6,020

USDA FD-CIC	Version 1.2
Date:	9/11/26
Crop to Model:	Corn
Number of Management Units to Model: Reset Inputs on All MUs	1

	MU #1 Reset MU #1 Inputs
Management Unit Name (optional):	
Location - State	ND
Location - County	Sheridan
Management Unit Size (acres)	160
Actual average yield per acre (bushels/acre)	122
Expected yield per acre (bushels/acre)	122
Total Synthetic N Applied Per Acre (lbs/acre)	150
(click to navigate to terms Glossary)	
Management Practices	
1) Cover Crop	No cover crop
2) Tillage Practice	No till
3) Percent of synthetic N receiving Nitrification Inhibitors (0%-100%)	100%
4) Applied Manure	
N content guidance	
4.1) Manure applied, Type 1	None
Amount of type 1 manure applied (1,000 gal/acre or ton/acre)	0
N content of type 1 manure (lbs/ton or lbs/1,000 gal)	0
4.2) Manure applied, Type 2	None
Amount of type 2 manure applied (1,000 gal/acre or tons/acre)	0
N content of type 2 manure (lbs/ton or lbs/1,000 gal)	0
4.3) Manure applied, Type 3	None
Amount of type 3 manure applied (1,000 gal/acre or tons/acre)	0
N content of type 3 manure (lbs/ton or lbs/1,000 gal)	0
(click to navigate to terms Glossary)	

Results (g CO_2e/bushel)	MU #1	Estimated National Average
Corn Carbon Intensity (CI) Score (g CO2e/bushel)	5,401	6,020

USDA FD-CIC	Version 1.2
Date:	9/11/26
Crop to Model:	Corn
Number of Management Units to Model: Reset Inputs on All MUs	1

	MU #1 Reset MU #1 Inputs
Management Unit Name (optional):	
Location - State	ND
Location - County	Sheridan
Management Unit Size (acres)	160
Actual average yield per acre (bushels/acre)	122
Expected yield per acre (bushels/acre)	122
Total Synthetic N Applied Per Acre (lbs/acre)	150
(click to navigate to terms Glossary)	
Management Practices	
1) Cover Crop	Cover crop
2) Tillage Practice	No till
3) Percent of synthetic N receiving Nitrification Inhibitors (0%-100%)	100%
4) Applied Manure N content guidance	
4.1) Manure applied, Type 1	None
Amount of type 1 manure applied (1,000 gal/acre or ton/acre)	0
N content of type 1 manure (lbs/ton or lbs/1,000 gal)	0
4.2) Manure applied, Type 2	None
Amount of type 2 manure applied (1,000 gal/acre or tons/acre)	0
N content of type 2 manure (lbs/ton or lbs/1,000 gal)	0
4.3) Manure applied, Type 3	None
Amount of type 3 manure applied (1,000 gal/acre or tons/acre)	0
N content of type 3 manure (lbs/ton or lbs/1,000 gal)	0
(click to navigate to terms Glossary)	

Results (g CO_2e/bushel)	MU #1	Estimated National Average
Corn Carbon Intensity (CI) Score (g CO2e/bushel)	3,825	6,020

How can North Dakota producers benefit from 45Z?

- It is currently **unclear** the extent to which biofuel producers will pass on any value created by on-farm practices such as cover crops and zero-till to producers.

- However, it is likely that some portion of the value will have to be provided, particularly if refiners are close to a ‘cliff’ and need to purchase low-CI inputs to obtain the benefits.

Decision-making under Uncertainty

- North Dakota Producers of corn, soybean and canola may consider steps to become ‘45Z-ready,’ particularly if they are already zero-till and plant cover-crops.

- Practice changes may provide more value if producers grow all three crops.

Concluding Thoughts

Regenerative Pilot Program

Less than 1 year old, the Regenerative Pilot Program has been renewed with increased funding for the upcoming year (increase from $700 million to $1 billion).

Potential for producers to use this program (and others) to support transition to cover crops, zero-till, and nitrogen-efficient production.

45Z

Rules are set to be finalized this month, though they are unlikely to deviate substantially from what has been outlined to date.

Major outstanding question is how markets for low-CI inputs will develop; how much of a premium will biofuel producers pay farmers?