Illinois Sustainable Ag Partnership's
Ecosystem Market Forum

February 12, 2021

11:30am-1:30pm

ILLINOIS SUSTAINABLE AG PARTNERSHIP

WELCOME!

American Farmland Trust

No Farms No Food®
American Farmland Trust

OUR MISSION: To save the land that sustains us by protecting farmland, promoting sound farming practices, and keeping farmers on the land

Jean Brokish

Midwest Program Manager

Dr. Emily Bruner

Midwest Science Director

ILLINOIS SUSTAINABLE AG PARTNERSHIP

ISAP's mission is to create a network to support a systems approach to improve soil health and reduce nutrient loss.

www.ilsustainableag.org

SOIL HEALTH PARTNERSHIP

ASSOCIATION OF ILLINOIS SOIL & WATER CONSERVATION DISTRICTS

PHEASANTS forever The Habitat Organization

QUAIL forever The Habitat Organization

American Farmland Trust

ADMC Agricultural Drainage Management Coalition

ILLINOIS College of Agricultural, Consumer & Environmental Sciences

The Nature Conservancy

ILLINOIS CHAPTER Land Improvement Contractors of America LICA DEDICATED TO PROFESSIONAL CONSERVATION OF SOIL & WATER

ILLINOIS SOYBEAN ASSOCIATION CHECKOFF PROGRAM

THE WETLANDS INITIATIVE

Illinois Central College

IL Corn

THE ZEA MAYS FOUNDATION

PCM Precision Conservation Management

Beyond IL...


DEFENDERS OF SOIL, AIR, WOODS, WATERS AND WILDLIFE
THE IZAAK WALTON LEAGUE
OF AMERICA, INC.


Conservation
Cropping
Systems
Initiative
Improving Soil Health on Indiana Crop Land


PRACTICAL
FARMERS
of Iowa


WHIN
WABASH HEARTLAND
INNOVATION NETWORK


DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION
WISCONSIN


INDIANA
FARM BUREAU


PURDUE
EXTENSION


WI
LAND
+WATER


INDIANA ASSOCIATION OF
soil and water conservation
DISTRICTS


BENTON
SOIL AND WATER
CONSERVATION
DISTRICT


BIGPine


IOWA LEARNING FARMS
EST. 2004


IOWA STATE
UNIVERSITY
Extension and Outreach


CONSERVATION
LEARNING GROUP

Today's Speakers

Aldyen Donnelly,
Director of Carbon Economics
Nori

Kari Hernandez,
Global Head of Carbon Operations & Offer Marketing
Indigo Ag

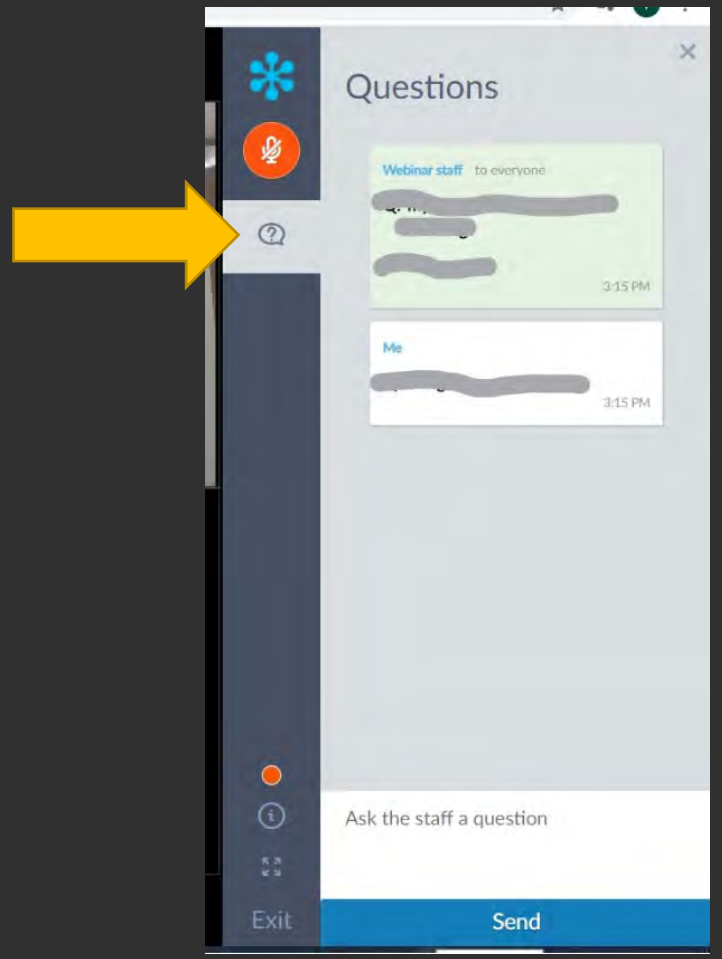
Adam Kiel,
Managing Director
Soil and Water Outcomes Fund

Caroline Wade,
Program Director
Ecosystem Services Market Consortium

Audience Engagement

600+ questions received thru registration

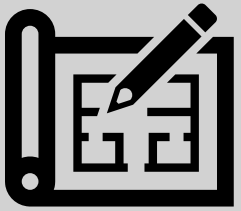
Keep asking Questions!



ILLINOIS SUSTAINABLE AG PARTNERSHIP

Building the Stage

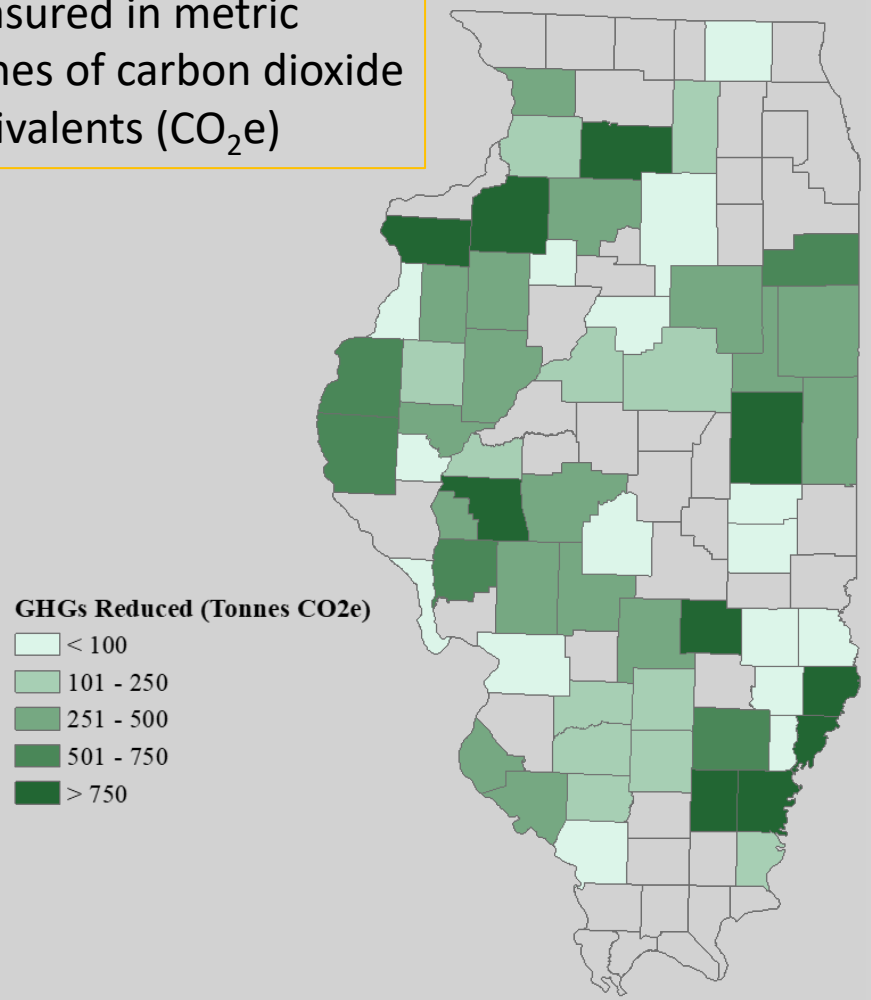
- Curating Questions
- Summarizing Responses
- Hypothetical Scenario



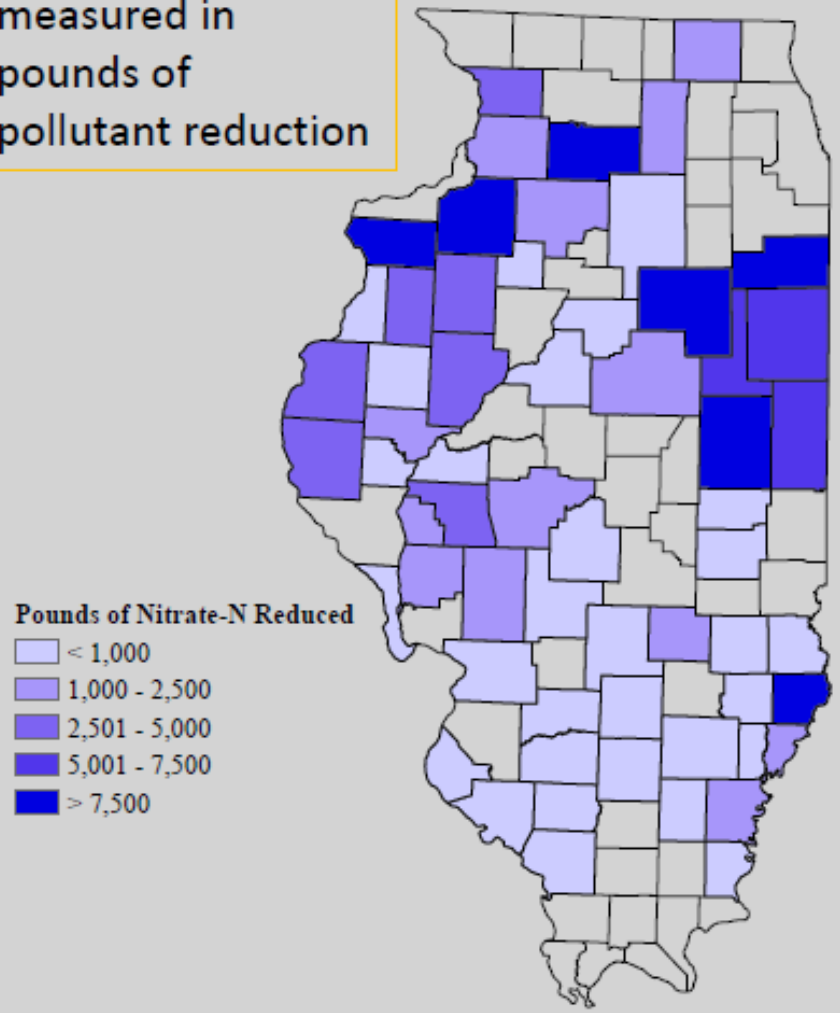
Setting the Stage

Ecosystem markets pay landowners and managers for **outcomes** verified at the field level and are ***not practice-specific.***

Soil carbon storage and net GHG reductions are measured in metric tonnes of carbon dioxide equivalents (CO_2e)

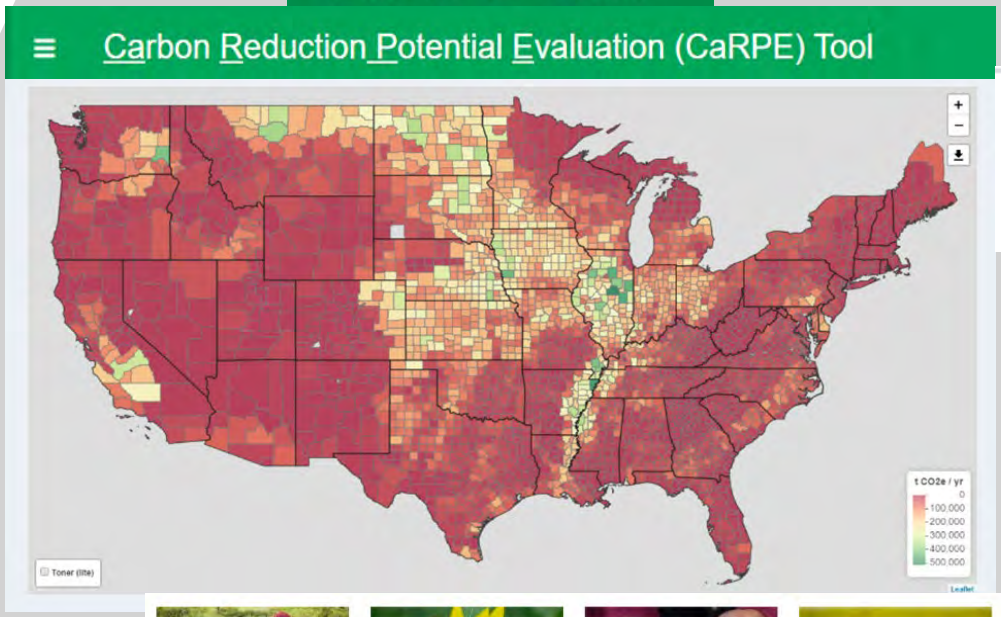


Water quality improvements are measured in pounds of pollutant reduction



Outcome Estimation Resources

CaRPE Tool™



COMET Planner

USDA United States Department of Agriculture
Natural Resources Conservation Service
Colorado State University

A Guide to Water Quality, Climate, Social, and Economic Outcomes Estimation Tools

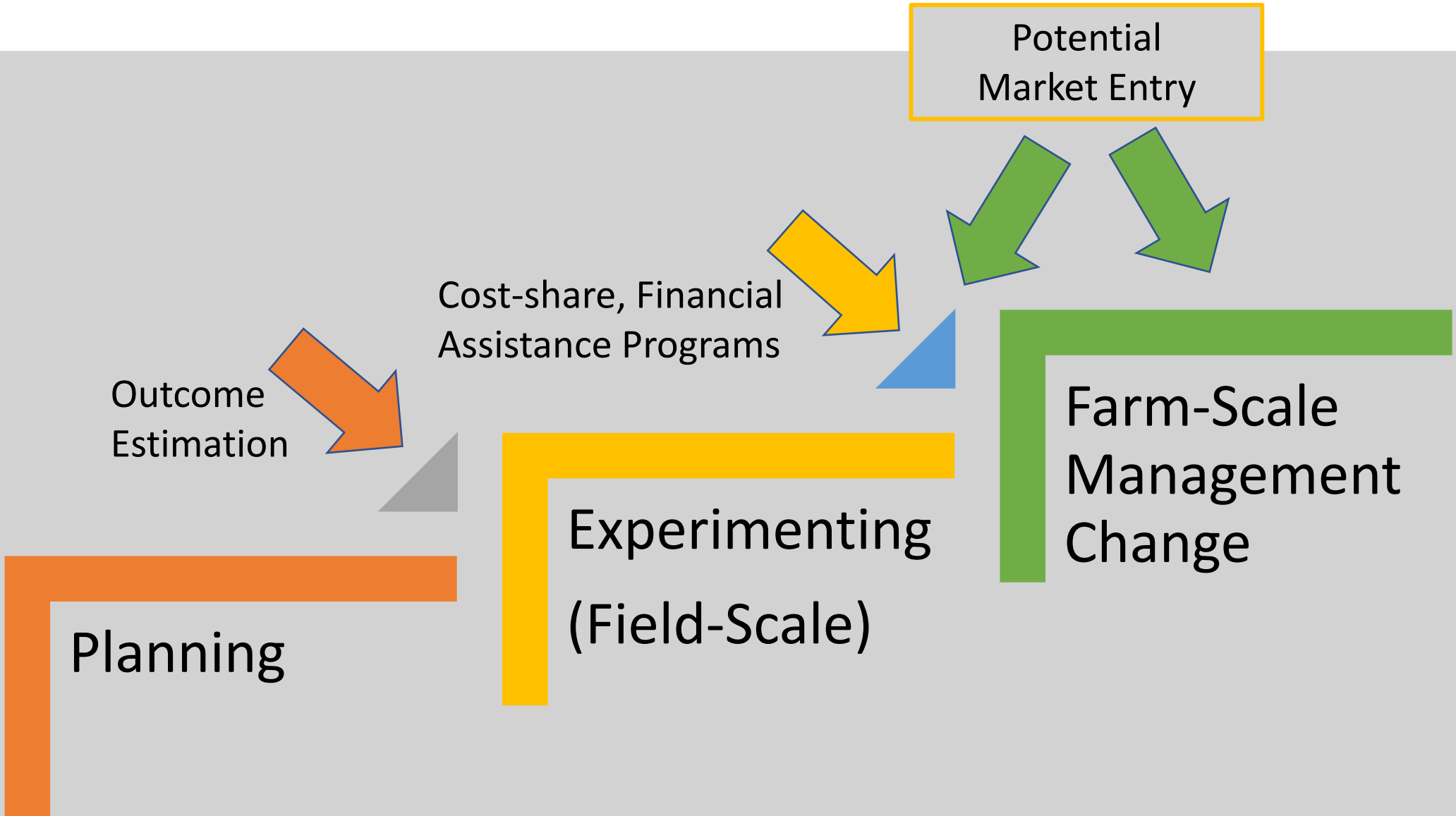
QUANTIFYING OUTCOMES TO ACCELERATE FARM CONSERVATION PRACTICE ADOPTION

Combatting Climate Change on US Cropland

Affirming the Technical Capacity of Cover Cropping and No-Till to Sequester Carbon and Reduce Greenhouse Gas Emissions

	Nori	Indigo Ag	Soil & Water Outcomes	ESMC
Acreage Min/Max	None	One-field min, no max	None	None
Contract Length	10 yrs	5 yrs	Annual with yearly renewal	Pilot – Annual Market Launch – Scope 1: 10 yrs; Scope 3: TBD
New Practice Requirement	Yes, with a look-back of up to 5 years during pilot phase	Yes, with a look-back of 2 growing seasons	Yes	Yes, but investigating potential of payments to producers already implementing conservation practices for Scope 3
Payment Schedule	End of month when offset credit is sold	50% yr 1, 20% yr 2, 10% yrs 3, 4, 5	Annually, split 50/50–1 shortly after signing, 1 after verification	Pilot – Annual Market- Launch - Annual to every 5 yrs depending on Scope for carbon 1 vs 3, respectively; annual for water quality.
Ability to Enroll Same Fields in Gov't Programs/ Other Markets	Designed to stack with both	Designed to stack with both, but other incentives cannot include payments for carbon credits or related assets (financing is okay)	No Note – payment for water quality and carbon outcomes	Designed to stack with gov't programs; individual fields cannot be in two market programs. Note – ESMC internally stacks carbon with GHG reductions, water quality, and water quantity.
Outcome Estimation	Soil sample reference network-based modeling (Soil Metrics) - cost incurred by Nori. Farmer has option to true-up via soil sampling - farmer incurs sampling cost.	Modeling (biogeochemical and statistical) + soil sampling, Indigo assumes cost (Indigo does not charge growers for anything)	Modeling, with 10% of fields subject to in-field soil and water sampling at no cost to farmer	Modeling (peer reviewed biogeochemical model) + soil sampling. ESMC assumes costs and includes in asset price to buyers.
Third Party Practice Verification	Minimum once every 3 years; standard audit procedure (review representative sample of receipts and invoices)	Random site visits and evidence checks, registry-approved methodology.	Yearly field visits, remote sensing	Scope 1– small subset of producers randomly selected for site visit + remoting sensing. Scope 3 –smaller subset of producers randomly selected for site visit +remote sensing.
Data Collected on Enrollment	Farm operational data – previous 10 years OR proprietary "*Smart Defaults*" option	Basic farmer info, field boundaries, and commitment to new practice(s)	Farm operational data – 2-3 years historical baseline plus 2-3 years of proposed practice change(s)	Scope 1 – detailed farm operational data Scope 3 – some operational data; Soil sampling and remote sensed data for both.
Penalty for Temporary Break in Practice Implementation	Farmer commits to make best effort to retain C stocks; not bound to any practice plan; not liable for *force majeure* C losses.	Payment pauses until soil carbon returns to previous level. Methodology prevents credits from being overestimated.	Breach of contract, farmer would not receive payment	Stall in soil carbon gains requires initial gains to be realized before additional credit issuance/payment; no consequences for dropping out of pre-market launch pilots
Enrollment Assistance	Supply Account Managers on-call; regular training; direct assistance with enrollment process	Customer success hotline or webchat options	Provided via staff and affiliates	Producer's preferred advisor (e.g. conservation district staff, CCAs) can be trained to assist; option to import data from 3rd party platform
Technical / Agronomic Assistance	NA (but supply account managers include trained agronomists)	Free in-house agronomic guidance, supplemented with on-the-ground help	Free conservation agronomists on staff	Provided by ESMC's member organizations and partners (e.g. conservation district, CCAs, NGOs).

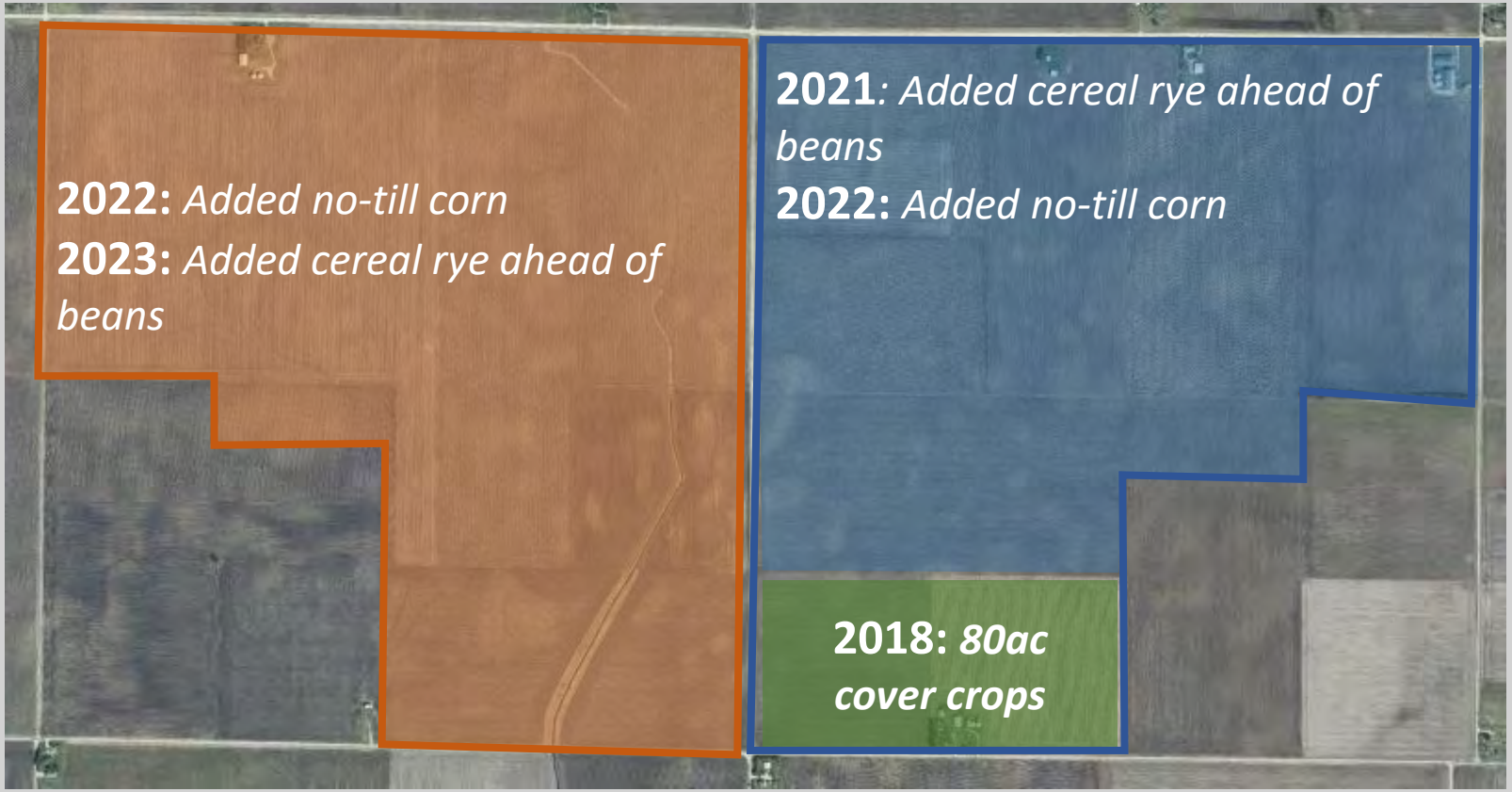
Considerations



Farmer Scenario

Rented Land: 500 acres

Owned Land: 500 acres



Mirror Farms, LLC

Corn / Soybean Rotation

Since 2008, using 2 tillage passes ahead of corn, no-tilling soybeans

Future Management Plans

2021: **+420 acres cover crops**

2022: **+1,000 acres no-till corn**

2023: **+500 acres cover crops**

Farmer Scenario

Corn/Soybean Farmer Owns 500 acres + Rents 500 acres = 1,000 acres total farmed			
Crop Year	**Rented (500 acres)**	**Owned (500 acres)**	**Notes**
Previous			
2018	2 tillage pass corn	Oats and Radish (*80 acres*) ahead of 2 tillage pass corn (500 acres)	First year trying winter kill covers on 80 acres
2019	No-till soybeans	Cereal Rye (*same 80 acres*) ahead of no-till soybeans (500 acres)	Second year using covers on same 80 acres (first year using winter hardy), practicing no-till on soybeans for 10+ years
2020	2 tillage pass corn	Oats and Radish (*80 acres*) ahead of 2 tillage pass corn (500 acres)	Third year doing covers (second year of winter kill) on same 80 acres
Planned			
2021	No-till soybeans	Cereal Rye ahead of no-till soybean on all owned ground (500 acres)	500 acreage total includes 80 acres previously in cover crops and 420 new acres into cover crops
2022	No-till corn	Cereal Rye ahead of no-till corn (500 acres)	New adoption of 1,000 acres of no-till corn cereal rye on same 500 owned acres as 2021
2023	Cereal Rye ahead of no-till soybean on all rented ground	Cereal Rye ahead of no-till soybean on all owned ground (500 acres)	Cereal rye adoption on all acres (80 acres previous + 420 acres new in 2021 + 500 acres new to covers in 2023)

New tillage acres New cover crop acres

Market Spotlight: Nori

Aldyen Donnelly

Director of Carbon Economics

Nori

How Does the Nori Market Serve Farmers & Ranchers?

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https://nori.com/
Aldyen Donnelly, aldyen@nori.com

American Farmland Trust
Feb 12, 2021

More About How the Nori Market Works

Start here:

https://medium.com/nori-carbon-removal/how-to-save-the-planet-and-make-climate-change-just-go-away-using-blockchain-and-cryptocurrency-f6e33917089d

Then check out:

https://nori.com/for-growers

And/or reach out to Nori's Supply Support Team:

- by emailing <hello.nori.com>
- start by tell us the county(ies) in which you operate, your acreage and the crops you produce

Carbon Registries are Certification Bodies

- **A registry** is an independent agency or program that **defines standards and methods for estimating emission and carbon sequestration project baselines**, and defines what constitutes 1 tonne of greenhouse gas (“TCO2e “) of avoided emission, emission reduction or GHG sequestration
- **When a registry receives assurance from a registry-approved third party “verifier”** that a Project Owner has properly defined a project baseline, and has reduced or sequestered 1TCO2e relative to that baseline**, the registry confirms the project is in compliance** with the registry’s estimation and reporting standards **by issuing a “credit” to the Project Owner’s account in the public side of the registry.**
- US registries include: Climate Action Reserve (**CAR**), Verra/VCS (**Verra**), American Carbon Registry (**ACR**), California Air Resources Board (**CARB**) GHG Offset Program, etc.

Are Registries Actually “Markets”?

Yes, no, maybe so … it depends on how one defines “market”

- **Most US registries**--including CAR, Verra, ACR, CARB—**operate like Craig’s list**. Once credits appear in an account in the public part of the registry, interested credit buyers can contact the credit owner, negotiate a credit price and figure out how to transact a credit purchase.
- Credit sales prices are not reported to or by these registries. The registries do not directly facilitate carbon credit sales. Suppliers can sell real interest in credits without reporting the sale or the name of the buyer(s) to the registry.
- **Small credit suppliers and small credit buyers are typically not permitted to set up accounts in most of the registries.**

What is a Carbon Market Aggregator?

- IndigoAg or BlueSource are examples of carbon credit Aggregators.
- Farm operators pre-sell real interest in their capacity to reduce emissions and sequester carbon (C), and any resulting credits, to the Aggregator.
- From the Registry's perspective, the Aggregator is the legal "Project Owner".
- The prices and terms and conditions under which the land owner might receive compensation when credits are sold are defined in contracts between the grower and the Aggregator.
- Aggregators have no obligation to report who they resell credits to, what prices the credits are sold for, how many times a credit is resold, or the terms of renumeration for the growers.

Most Registries Favor Project Aggregators

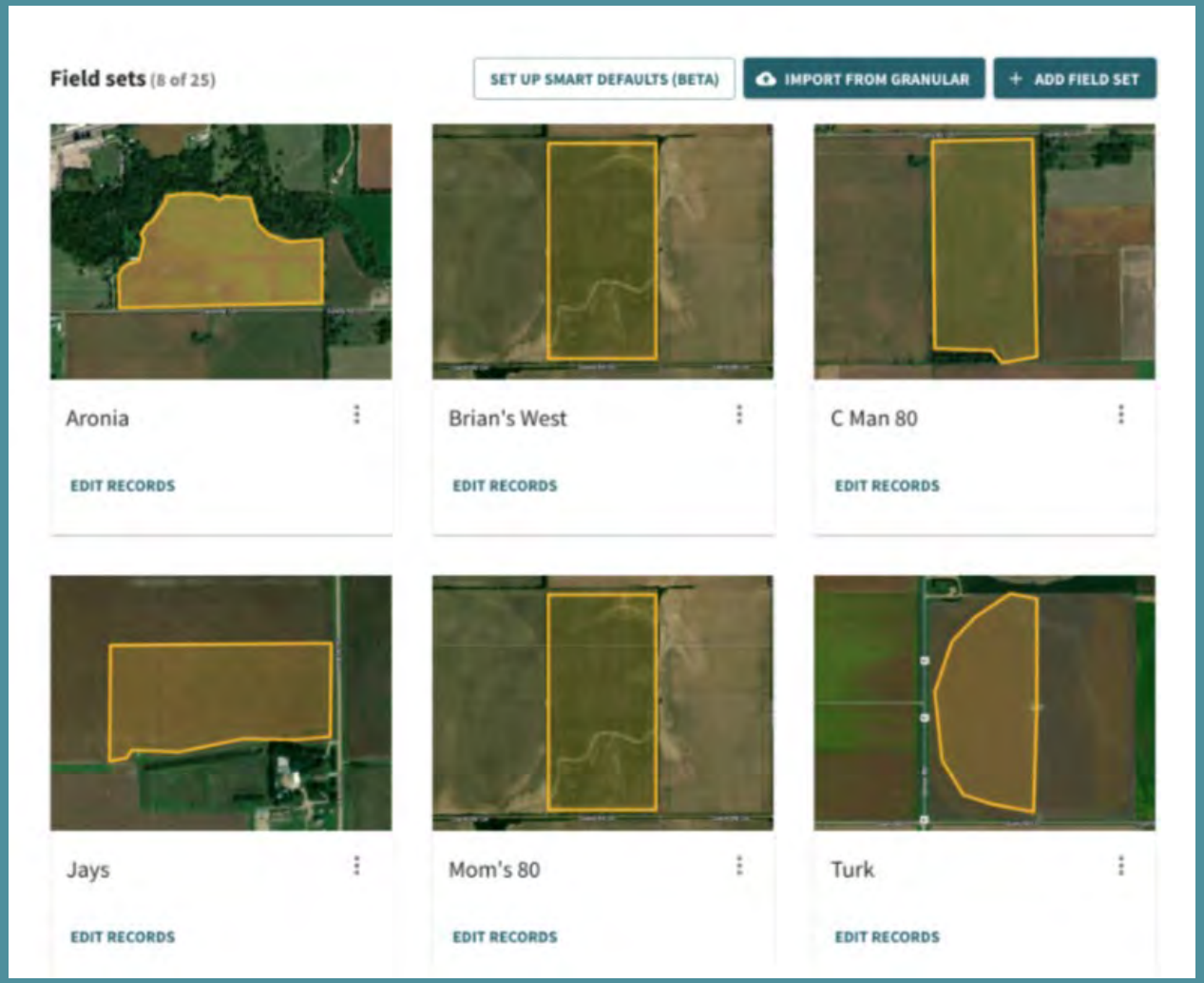
- The CAR registry derives most of their operating revenues from fixed one-time, annually recurring and “credit issuance” fees that the Project Owner pays whether or not their credits ever sell.
- Typically, the registries charge Project Aggregators lower fees than they charge individual projects/growers.

	Climate Action Reserve		Nori	
	Grower Retains Project Ownership	Aggregator Owns the Project(s)	Grower Retains Project Ownershi	Aggregator Owns the Project
One-time Up-Front Fees	$1,000	$700	$ -	$ -
Annually Recurring Fees	$500	$200	$ -	$ -
Credit Issuance Charge	$0.19/credit			$ -
Credit Transfer Fee	$0.03/credit *		15% of credit selling price, as set by farmer, paid by Buyer	
* charged only if credit sale or transfer is reported to the Registry				

Other Project Registration Cost Considerations

- Credits are only issued after project plans are “validated” and after repeating “verification” and “risk rating” events. Under the CAR Protocol, validation, verification and risk rating can cost the Project Owner 5 to 10 times verification costs for the Nori market.
- Soil sampling and testing, as currently mandated in the CAR and Verra programs, can eat the first $9 to $20 of the price Buyers are willing to pay for carbon credits, while adding limited value—in SOC stock trend estimate accuracy terms—relative to estimates generated by process models that are informed by sample data generated by a robust and continuously maintained reference networks of experimental sites.
- Process models informed by statistically representative soil sample test sites can deliver comparable SOC stock change certainty at costs under US$/credit

The AFT Sample Project

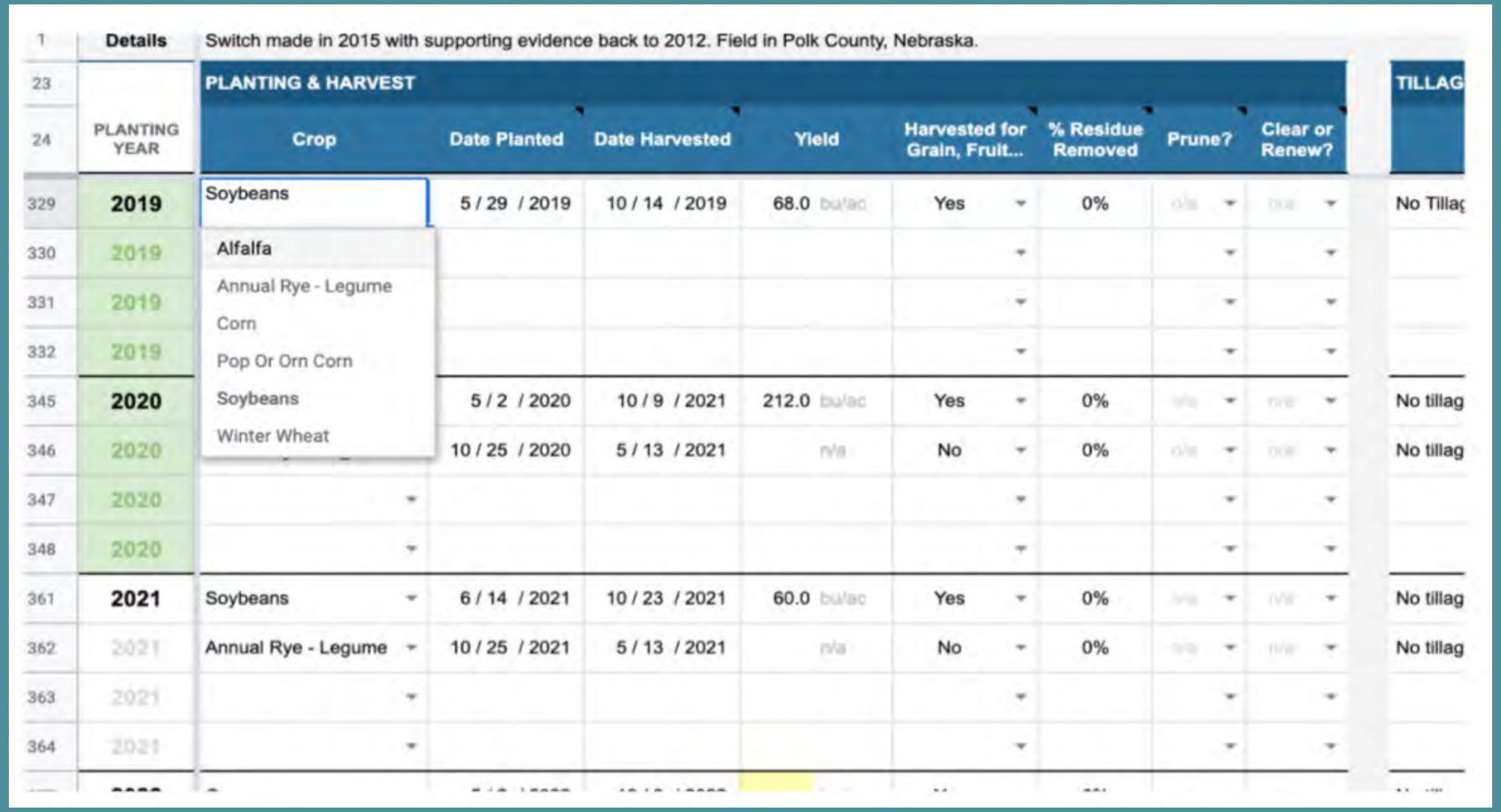


- First, Nori needs field locations and boundaries.
- Nori Supply Support can help farmers do this, as can advisors in NRCS and stateU extension offices.
- Nori is working with multiple ag advisory and service providers to make it easy for the grower to instruct them to transport data to Nori.

All data shared with Nori is confidential and Nori cannot use your data for any purpose other than issuing NRTs.

The AFT Sample Project (2)

- In their accounts, growers are asked to review and correct obvious errors in pre-filled data templates for each field.

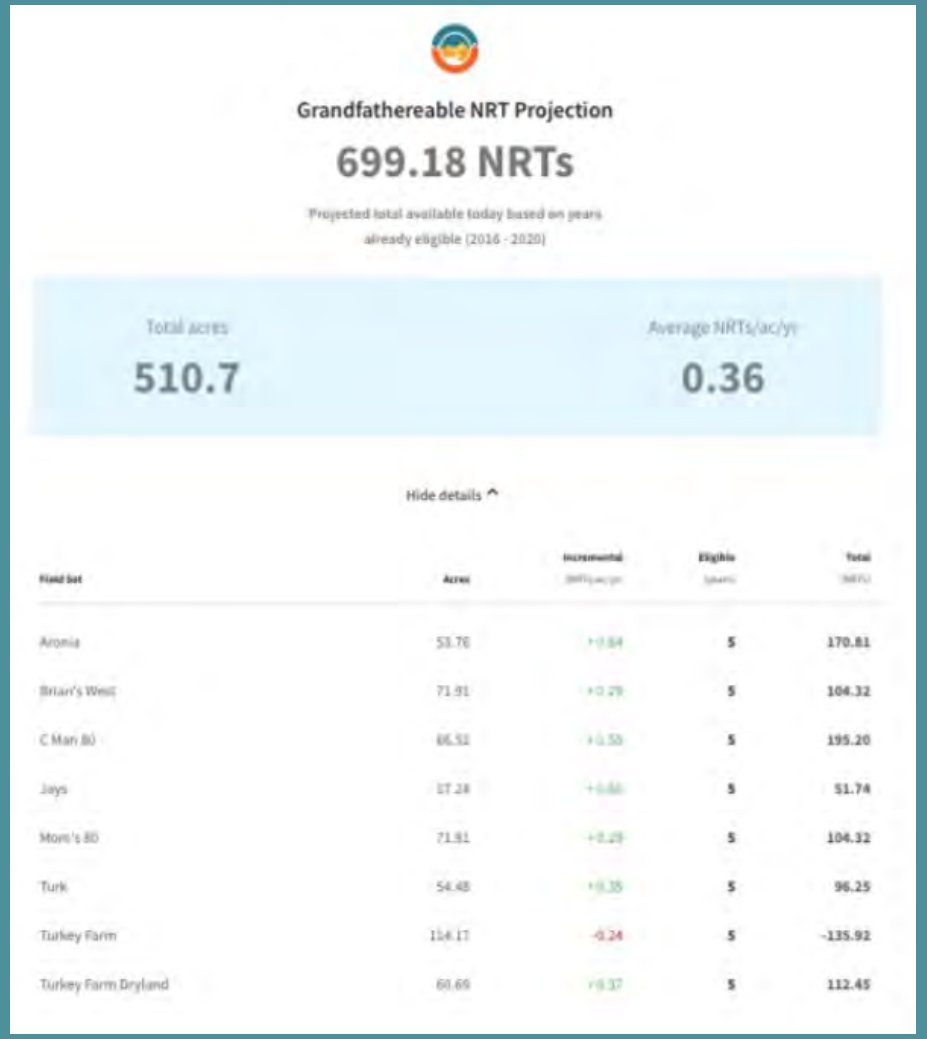


	Details	Switch made in 2015 with supporting evidence back to 2012. Field in Polk County, Nebraska.								
23		PLANTING & HARVEST								TILLAG
24	PLANTING YEAR	Crop	Date Planted	Date Harvested	Yield	Harvested for Grain, Fruit...	% Residue Removed	Prune?	Clear or Renew?	
329	2019	Soybeans	5 / 29 / 2019	10 / 14 / 2019	68.0 bu/ac	Yes	0%			No Tillag
330	2019	Alfalfa								
331	2019	Annual Rye - Legume								
332	2019	Corn								
345	2020	Pop Or Orn Corn	5 / 2 / 2020	10 / 9 / 2021	212.0 bu/ac	Yes	0%			No tillag
346	2020	Soybeans	10 / 25 / 2020	5 / 13 / 2021	n/a	No	0%			No tillag
347	2020	Winter Wheat								
348	2020									
361	2021	Soybeans	6 / 14 / 2021	10 / 23 / 2021	60.0 bu/ac	Yes	0%			No tillag
362	2021	Annual Rye - Legume	10 / 25 / 2021	5 / 13 / 2021	n/a	No	0%			No tillag
363	2021									
364	2021									

- Growers who supply more verifiable data will get higher NRT scores and faster NRT issuance will occur.

All data shared with Nori is confidential and Nori cannot use your data for any purpose other than issuing NRTs.

Grower Can Review NRT Projections Before Committing to Anything



Grandfathereable NRT Projection

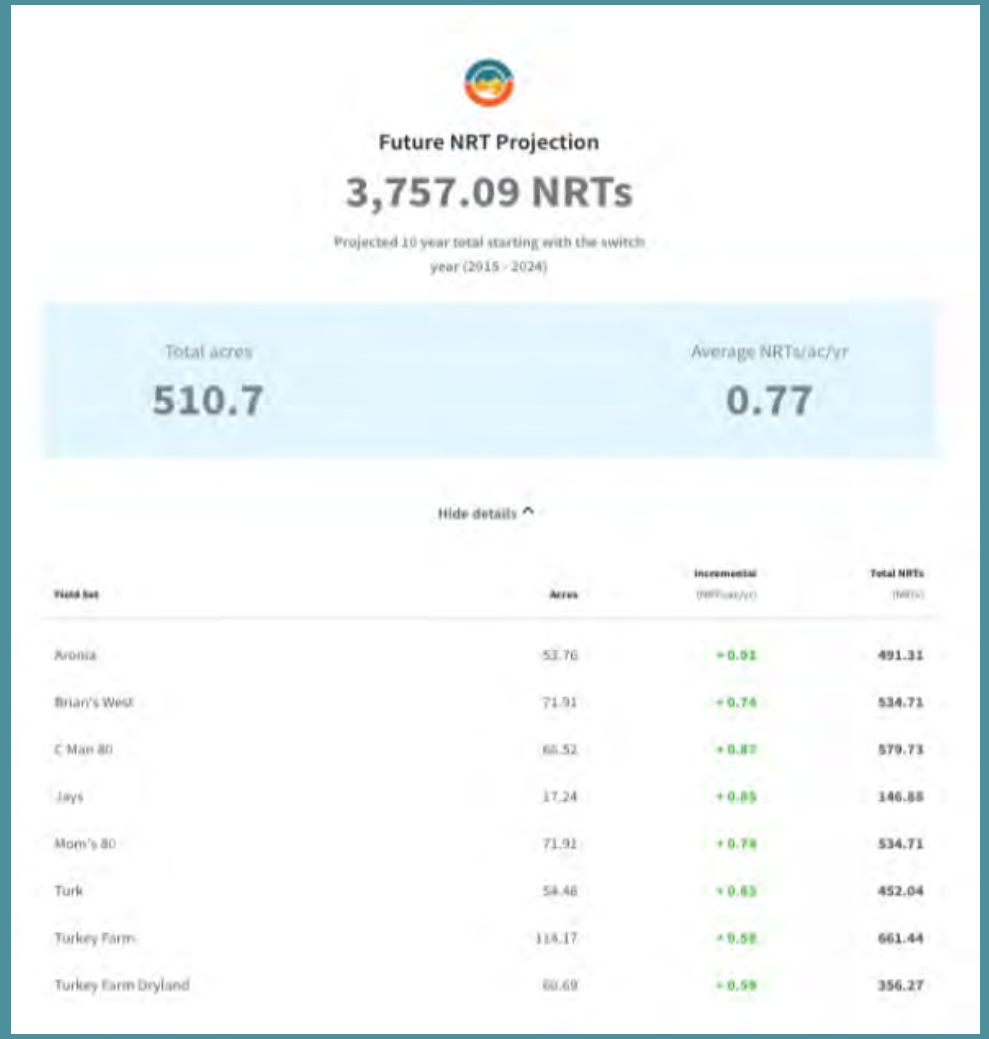
699.18 NRTs

Projected total available today based on years already eligible (2016 - 2020)

Total acres	Average NRTs/ac/yr
510.7	0.36

Hide details

Field Set	Acres	Incremental	Eligible	Total
Aronia	53.76	+0.64	5	170.81
Brian's West	71.91	+0.29	5	104.32
C Man 80	66.52	+0.55	5	195.20
Jays	17.24	+0.60	5	51.74
Mom's 80	71.91	+0.29	5	104.32
Turk	54.48	+0.35	5	96.25
Turkey Farm	114.17	-0.24	5	-135.92
Turkey Farm Dryland	60.69	+0.37	5	112.45



Future NRT Projection

3,757.09 NRTs

Projected 10 year total starting with the switch year (2015 - 2024)

Total acres	Average NRTs/ac/yr
510.7	0.77

Hide details

Field Set	Acres	Incremental	Total NRTs
Aronia	53.76	+0.91	491.31
Brian's West	71.91	+0.74	534.71
C Man 80	66.52	+0.87	579.73
Jays	17.24	+0.85	146.88
Mom's 80	71.91	+0.74	534.71
Turk	54.48	+0.83	452.04
Turkey Farm	114.17	+0.58	661.44
Turkey Farm Dryland	60.69	+0.59	356.27

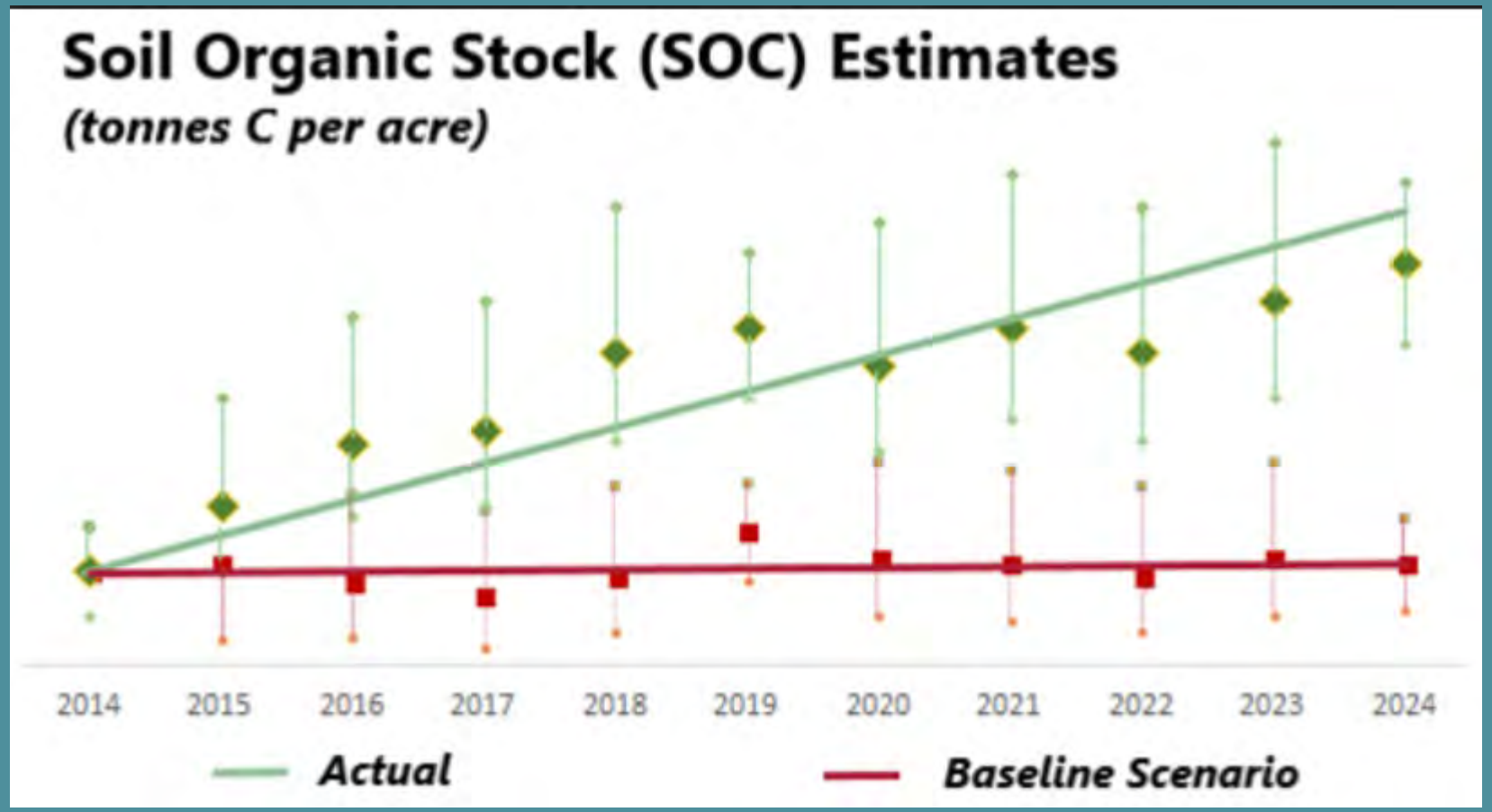
Credit Issuance Comparison

- CAR registry requires grower to commit to 100 years of data reporting, verification and C stock retention (compared to 10 years for Nori).
- CAR credit issuance is "vested" (2 different contracting options).
- How much more $/credit would a farmer have to get paid for CAR credits to make up for the slow relative pace of CAR credit issuance?

year	2016	2017	2018	2019	2020	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	***Conditional* Future Credits Receivable**
Registered project acres	511	511	511	511	511	**511**	**511**	**511**	**511**	**511**	**511**	**511**	**511**	**511**	**511**	
Actual incremental SOC stock gains per acre, for year	0.80	0.50	0.12	0.45	0.85	**0.92**	**0.79**	**0.83**	**1.01**	**0.55**	**0.84**	**(0.24)**	**0.92**	**1.10**	**0.85**	
Maximum marketable credits issued by registry/market administrator																
Climate Action Registry - TTA Method (before buffer deduction)						**68**	**53**	**68**	**85**	**94**	**108**	**104**	**120**	**139**	**153**	*4,259*
Climate Action Registry - TYA Method (before buffer deduction)						**20**	**15**	**20**	**25**	**28**	**32**	**31**	**35**	**41**	**45**	*4,959*
Nori Market Method						**699**	**724**	**582**	**644**	**654**	**313**	**347**	**417**	**417**	**453**	

Why Interpreting Soil Sample Test Results Can Be Difficult and Confusing

- If initial credit quantification reflects the trend defined by sample test results for 2014-2019 (green points), too many credits will be issued.



Market Spotlight: Indigo Ag

Kari Hernandez

Global Head of Carbon Operations & Offer Marketing

Indigo Ag

FARMING FOR THE FUTURE

KARI HERNANDEZ
Global Head of Carbon Operations & Offer Marketing

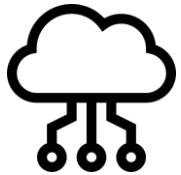
FEBRUARY 12, 2021

indigo™
from questions we grow

The Indigo Carbon Program

A program backed by science & technology, driven by data, and building value across the supply chain through sustainability.

Support implementation of beneficial farming practices



Bring together science and technology for new profitability opportunities

Generate additional income from registry-issued carbon credits

Use data to improve the value of your farm, both now and for the future

We've Learned...

CCX Chicago Climate Exchange

R.I.P.: Al Gore's Chicago Climate Exchange Has Died

By GREG POLLOWITZ | November 7, 2010 2:45 PM

Death to the Chicago Climate Exchange ($7.40 to a nickel per CO2 ton, the market has spoken)

"The most important factor affecting prices on a voluntary carbon market is transparency. Buyers want to know that the offsets they purchase represent actual reductions in greenhouse gas emissions. On the CCX, this transparency can be tricky."

- Forest2Market

indigo

Sources: *National Review*, *MasterResource*, *Forest2Market*

We've Adapted...

CLIMATE ACTION RESERVE

As the premier carbon offset registry in North America, the **Climate Action Reserve** ensures integrity, transparency and financial value in the North American carbon market.

VERRA

The VCS Program is the world's most widely used voluntary GHG program. Over 1,600 certified VCS projects have collectively reduced or removed more than 500 million tonnes of carbon and other GHG emissions from the atmosphere.

≈

USDA ORGANIC

indigo

Sources: climateactionreserve.org, verra.org

We're building for long-term value...

ESG INVESTING

Carbon Pricing Is Hot Again. Here's How Investors Can Play It.

By Leslie P. Norton Sept. 18, 2020 8:30 am ET

AMERICA'S FIRST CERTIFIED CARBON NEUTRAL BEER

BCG

We are expecting to spend $35 per tonne in 2025 on carbon avoidance and removals, rising to $80 per tonne of 100% carbon removals in 2030—a significant increase from the current

indigo

Sources: *Barrons*, DrinkSust ainably.com, BCG.com

Buyers are pre-ordering registry-issued credits from Indigo Carbon farmers

The Indigo Carbon Program is Supported By:

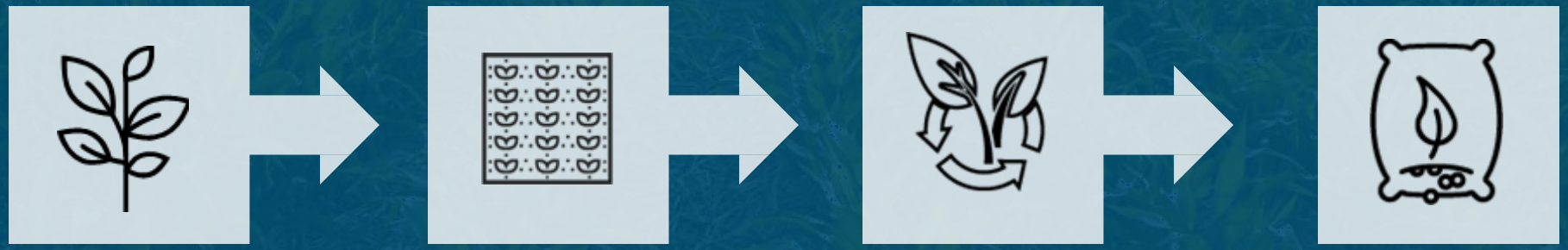
MAPLE LEAF
JPMORGAN CHASE & CO.
shopify
THE NORTH FACE
BARCLAYS
CO2OL EFFECT
NEW BELGIUM Fat Tire EST. COLORADO U.S.A. 1991
BLUE BOTTLE COFFEE
Dogfish Head
givewith
BCG
CRAFT EPIPHANY MALT SINGULAR MALTOIR

Part of our climate change strategy is to advance the development of effective nature-based solutions. Indigo's approach highlights the importance of soil as a 'carbon sink,' as well as delivering improved benefits for regenerative agriculture and economic returns for farmers. The verified carbon credits generated by Indigo Ag will be used by Barclays as part of its carbon offsetting approach for operational emissions.

Elsa Palanza,
Global Head of Sustainability and ESG, Barclays
BARCLAYS

indigo

Pick up new practices or intensify current practices to qualify

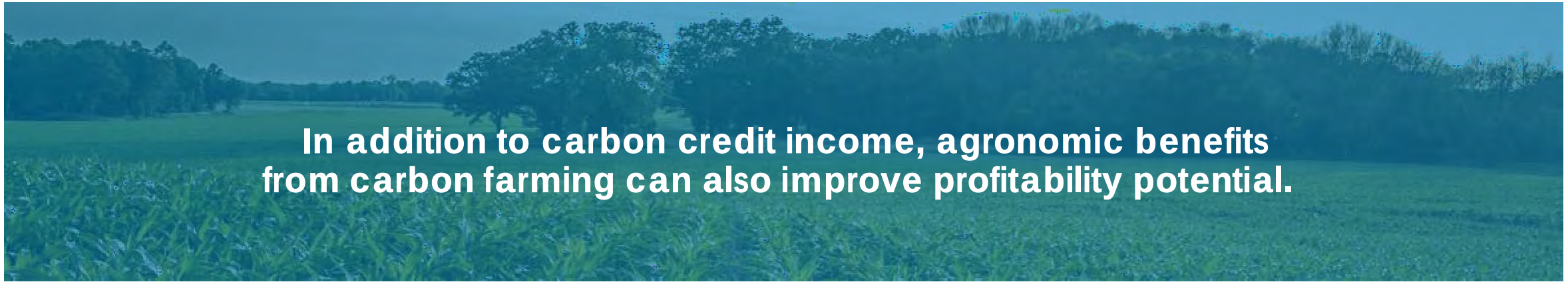


Planting Cover Crops

Reducing Tillage

Rotating Crops

Rebalancing Inputs

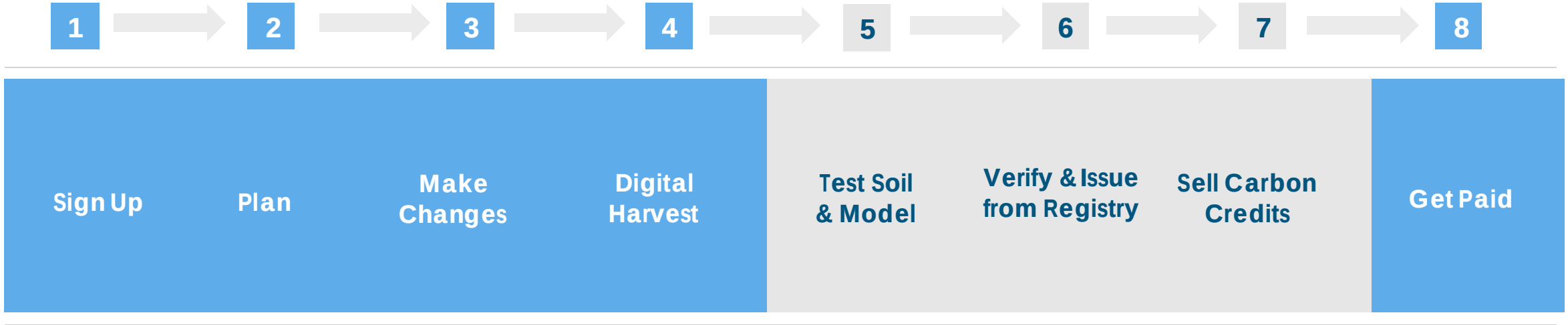


In addition to carbon credit income, agronomic benefits from carbon farming can also improve profitability potential.

Improved Drought Tolerance	Decreased Cost of Production	Improved Weed Management	Better Field Accessibility	Protecting Yields, Especially in Challenging Weather Years

These outcomes are potential benefits.

What to expect



Farmers **never pay** to participate in the Indigo Carbon Program.

GROWER STEPS INDIGO STEPS

*Payment under Indigo Carbon contingent upon generation of verified carbon credits that may originate from practice changes and carbon capture on grower land.

Corn/Soybean Farmer Example

Corn/Soybean Farmer Owns 500 acres + Rents 500 acres = 1,000 acres total farmed			
Crop Year	**Rented**	**Owned**	**Notes**
Previous			
2018	2 tillage pass corn (500 acres)	Oats and Radish (80 acres) ahead of 2 tillage pass corn (500 acres)	First year trying winter kill covers on 80 acres
2019	No-till soybeans (500 acres)	Cereal Rye (same 80 acres) ahead of no-till soybeans (500 acres)	Second year using covers on same 80 acres (first year using winter hardy), practicing no-till on soybeans for 10+ years
2020	2 tillage pass corn (500 acres)	Oats and Radish (80 acres) ahead of 2 tillage pass corn (500 acres)	Third year doing covers (second year of winter kill) on same 80 acres
Planned			
2021	No-till soybeans (500 acres)	Cereal Rye ahead of no-till soybean on all owned ground (500 acres)	500 acreage total includes 80 acres previously in cover crops and 420 new acres into cover crops
2022	No-till corn (500 acres)	Cereal Rye ahead of no-till corn (500 acres)	New adoption of 1,000 acres of no-till corn cereal rye on same 500 owned acres as 2021
2023	Cereal Rye ahead of no-till soybean on all rented ground (500 acres)	Cereal Rye ahead of no-till soybean on all owned ground (500 acres)	Cereal rye adoption on all acres (80 acres previous + 420 acres new in 2021 + 500 acres new to covers in 2023)

Your farm is unique. Your experience with Indigo is too.

REGION	ACREAGE	CROPS	NEWPRACTICES
CITY/TOWN **Marion, IL**	<250	Corn	Reduced Tillage
	250 - 500		Reduced Fertilizer
LOCATION **37.7N, 88.9W**	500 - 750	Wheat	No Tillage
	750 - 1000		No Fertilizer
	1000 - 1250	Soybeans	Cover Crops
	1250 - 1500		Crop Rotation
	1500 - 1750	Cotton	Livestock Grazing
	1750 - 2000		Residue Retention
	2000 - 2250		Compositing
	2250 +		Grassed Waterways

Sign up at Carbon.IndigoAg.Net

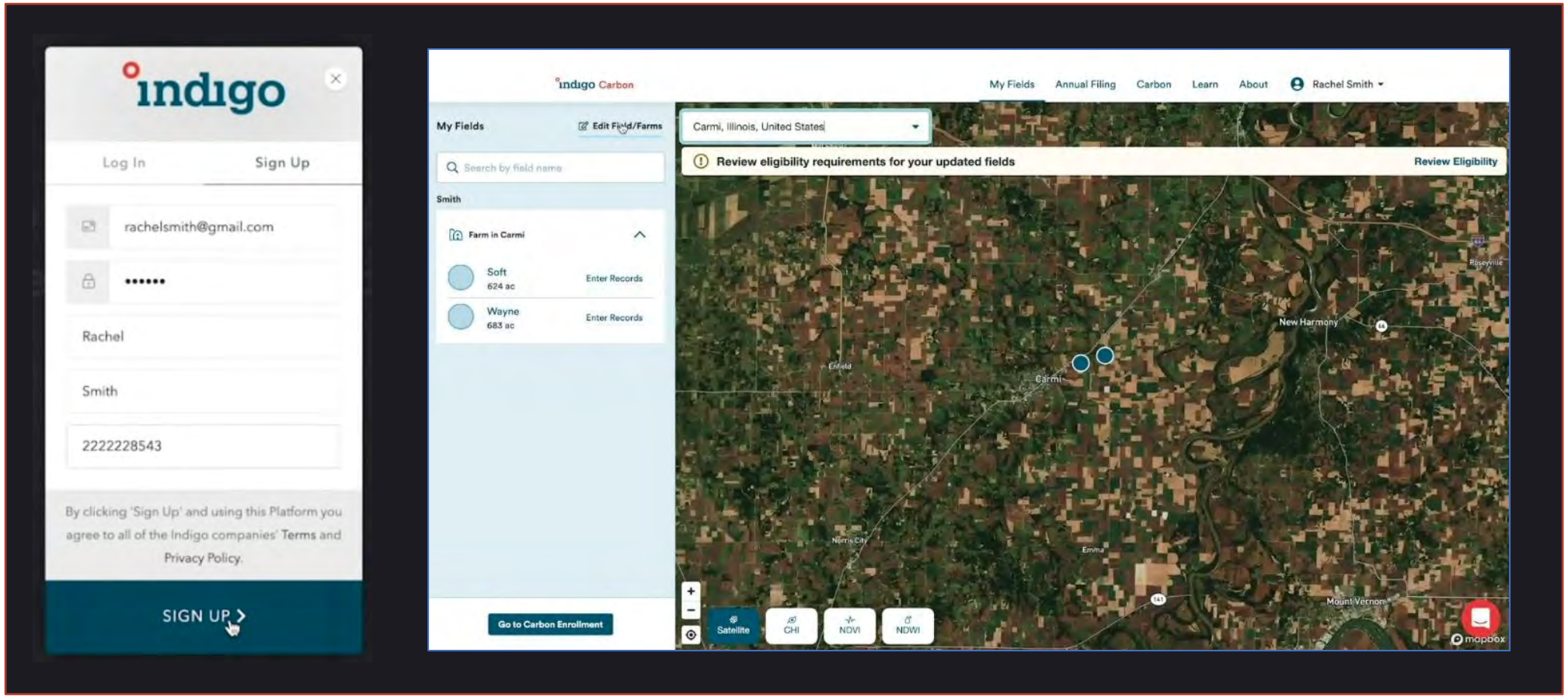
1 SIGN UP

2 PLAN

3 MAKE CHANGES

4 DIGITAL HARVEST

5 GET PAID



Plan practice changes with free guidance from Indigo's experts.

1 SIGN UP

2 PLAN

3 MAKE CHANGES

4 DIGITAL HARVEST

5 GET PAID

Justin Friedrich
Illinois Agronomist
Twitter @Justin_Agronomy

Joshua DeGroot
Illinois Agronomist
Twitter @Agronomist24_7

The Indigo Carbon Program offers growers various types of free agronomic support, including:

- Decision-making support
- Planning tools
- Answering agronomic questions
- In-season and after-season evaluation

In Illinois, Justin and Joshua have a combined 14 years of experience in crop consulting and specialize in carbon farming practices.

indigo

Implement beneficial farming practices tailored to increase the soil health and carbon credit potential of your operation.

1 SIGN UP

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No-till Corn & Beans

Plant Cover Crops

Our agronomists recommend for your operation:

- Before no-till beans, an 80% rye / 20% forage collards covercrop mix.
- Before no-till corn, a 40% oats / 40% vetch / 20% radish covercrop mix.

indigo

Submit management records in the Indigo Carbon Program software to demonstrate your new carbon farming practices.

1 SIGN UP

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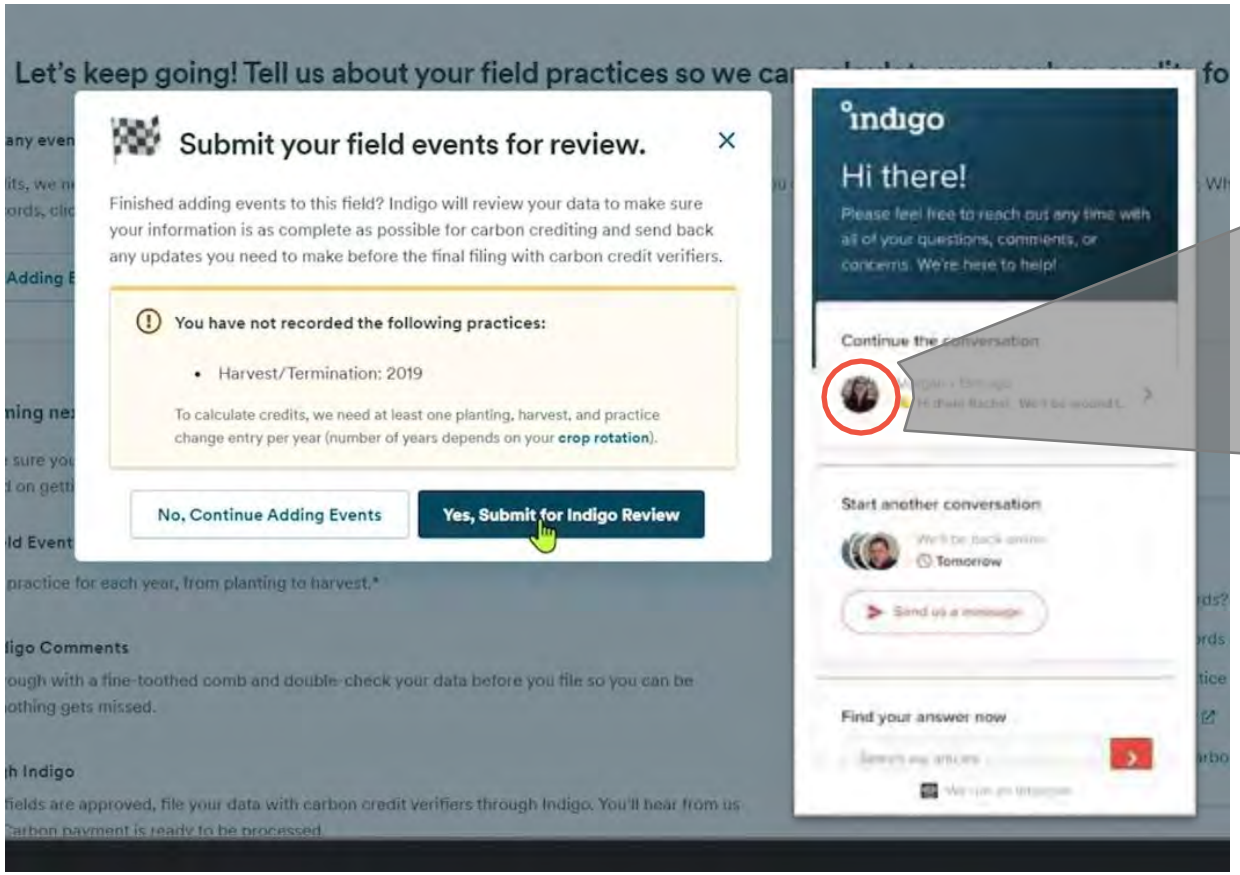


Morgan & Todd are ready to help you!

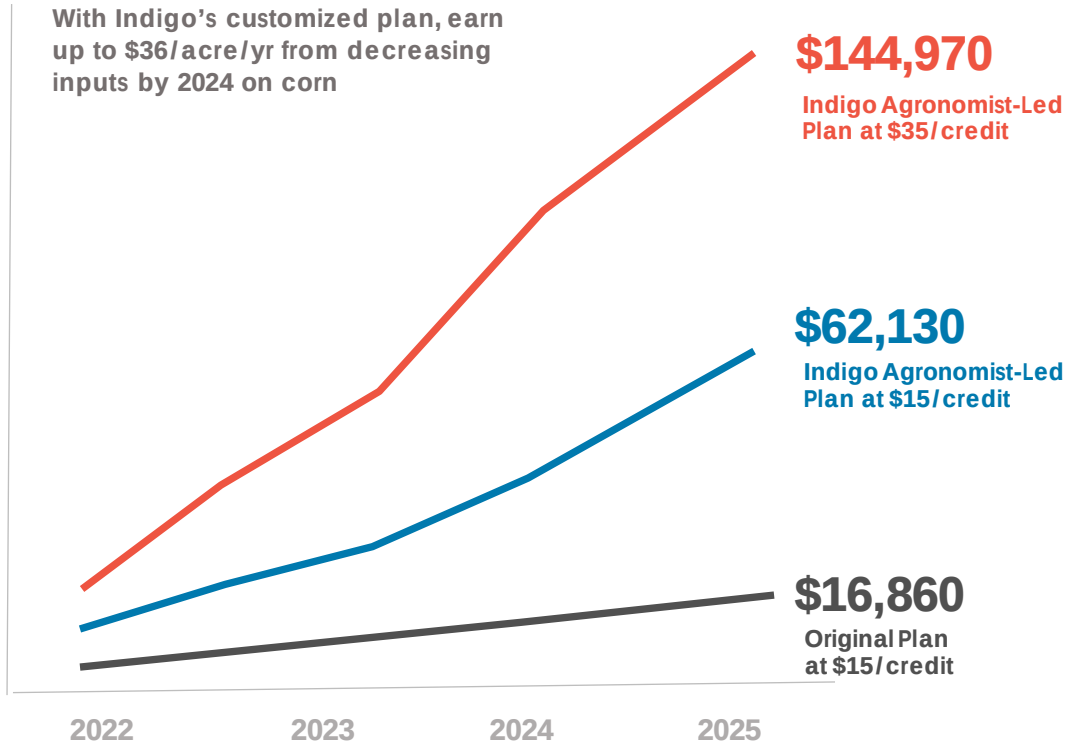
Morgan Mooney
Carbon Customer Success

Todd Weitekamp
Carbon Customer Success
IL Corn & Soybean Grower

Participation in the Indigo Carbon Program provides a multitude of benefits, both short- and long-term.

1. SIGN UP
2. PLAN
3. MAKE CHANGES
4. DIGITAL HARVEST
5. **GET PAID**

Cumulative Earned Carbon Credit Payment Potential Over Time (1,000 acres)



PLUS SOIL HEALTH BENEFITS:

- IMPROVED SOIL STRUCTURE
- INCREASED WATER INFILTRATION
- IMPROVED WEED CONTROL
- LESS FERTILIZER (up to $21/ac/yr in N for corn)

*Illustrative case study only. Actual results may vary based on a number of variables specific to each grower. Indigo makes no guarantees with respect to any specific outcomes or results. Actual payment rate will vary based on market conditions. All cash amounts listed here are hypothetical only and should not be interpreted as any guarantee or minimum payment benefit specific to any grower.

THE indigo CARBON™ PROGRAM

Create a free account to get started
IndigoAg.com/FFTF

Questions? Join our 2/25 carbon webinar.
IndigoAg.com/Feb_Webinar

Getting started is simple, free, and flexible.*

Indigo Carbon credits are registry-issued, increasing their market value.

Leading global brands are committed to purchasing your carbon credits through the Indigo Carbon Program.

*Terms, conditions and limitations apply.
Eligibility and enrollment requirements apply.

Market Spotlight: Soil & Water Outcomes Fund

Adam Kiel

Managing Director

Soil and Water Outcomes Fund

Soil and Water Outcomes Fund

AgOutcomes

ReHarvest Partners

About Us

The Soil and Water Outcomes Fund provides financial incentives to farmers who implement new conservation practices that cost effectively sequester carbon, improve water quality and generate other environmental outcomes.

We sell the resulting verified environmental outcomes of these practices to the public and private entities that benefit from them.

AgOutcomes

A subsidiary of the Iowa Soybean Association

ReHarvest Partners

A subsidiary of Quantified Ventures

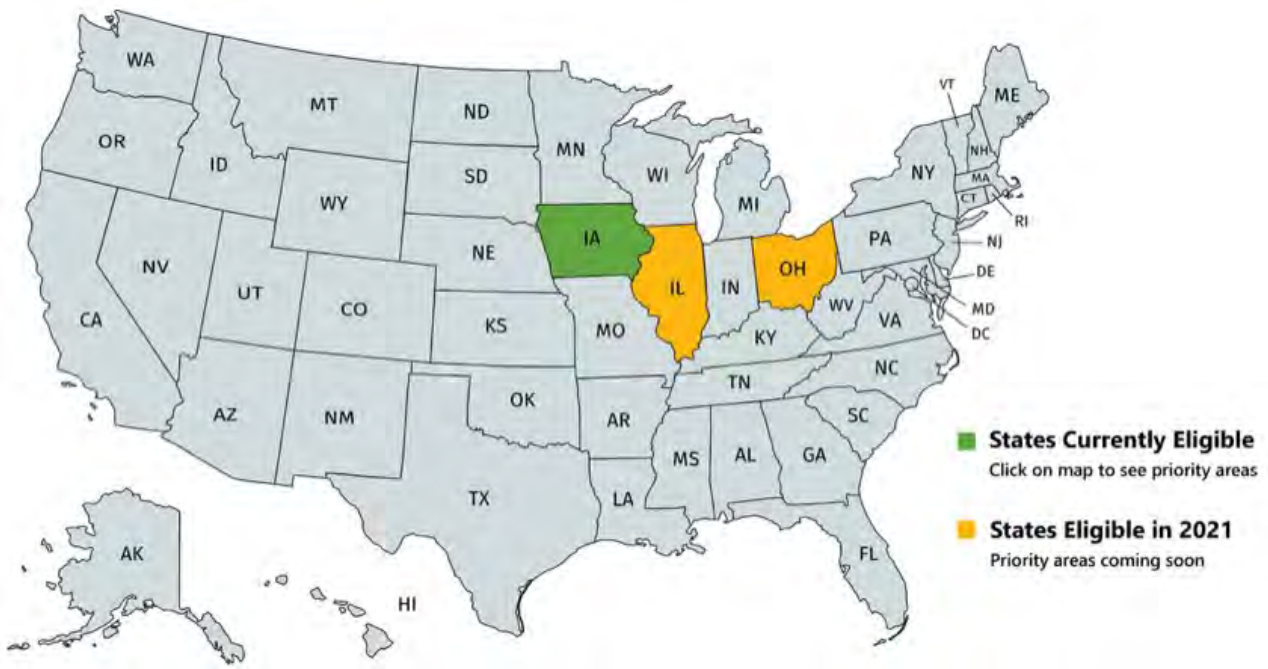
Why Work With Us?

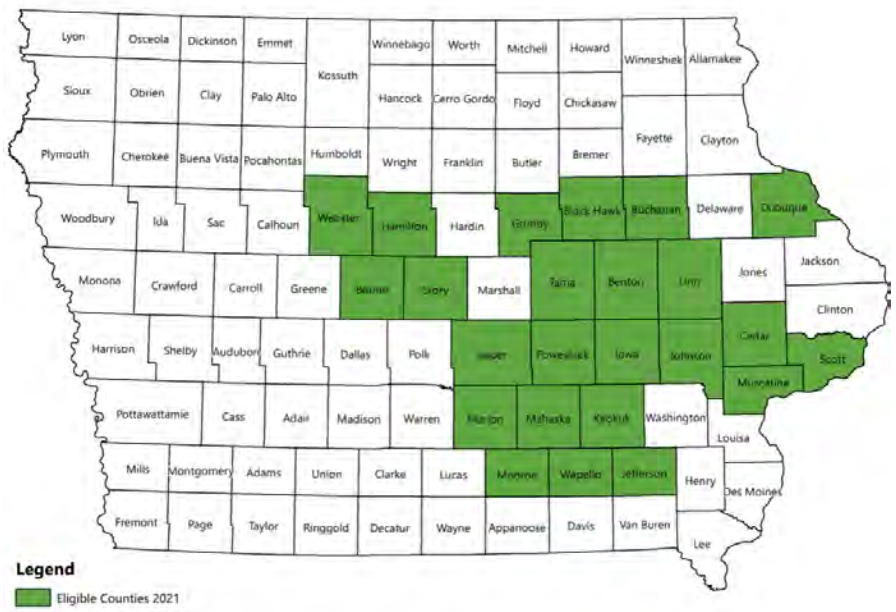
- Water Quality + Carbon/GHG payment
- No acre minimum or maximum
- New practice requirement, no lookback
- Stacking NOT allowed with government conservation programs or other ecosystem service programs
- Minimum 2 years of historical data and 2 years of proposed data

Why Work With Us?

- 1-year contracts with annual renewal
- No quantification or verification costs to farmer
- Site visits, soil and water sampling and remote sensing verification
- Free agronomic/conservation technical assistance
- No customer requirements and we don’t try to sell farmers any other product or service

Where We Work?





Scope:
85,000 acres in Iowa, 10,000 acres in Ohio and 20,000 acres Illinois. Additional areas announced soon.

Farmer payments:
$15-40 per acre depending on location and outcomes

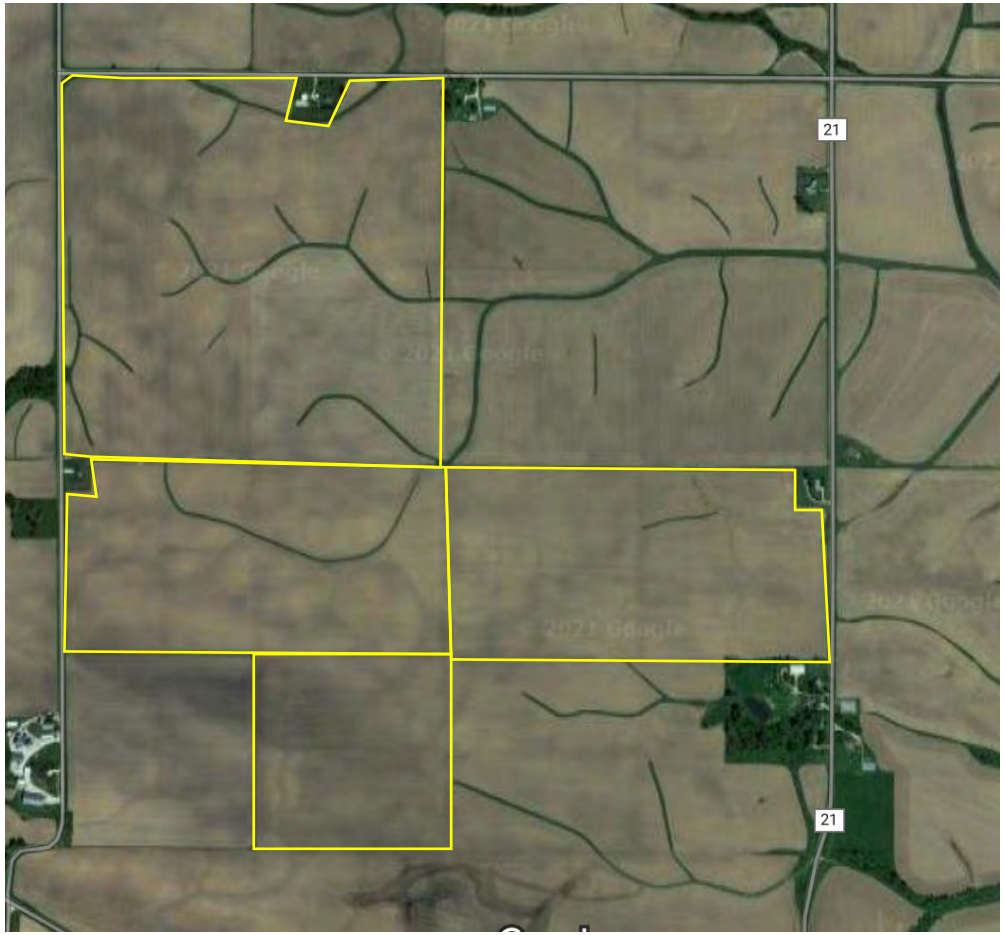
Enrollment:
Create a user account on theoutcomesfund.com and begin uploading fields and data

Sample Farm Scenario

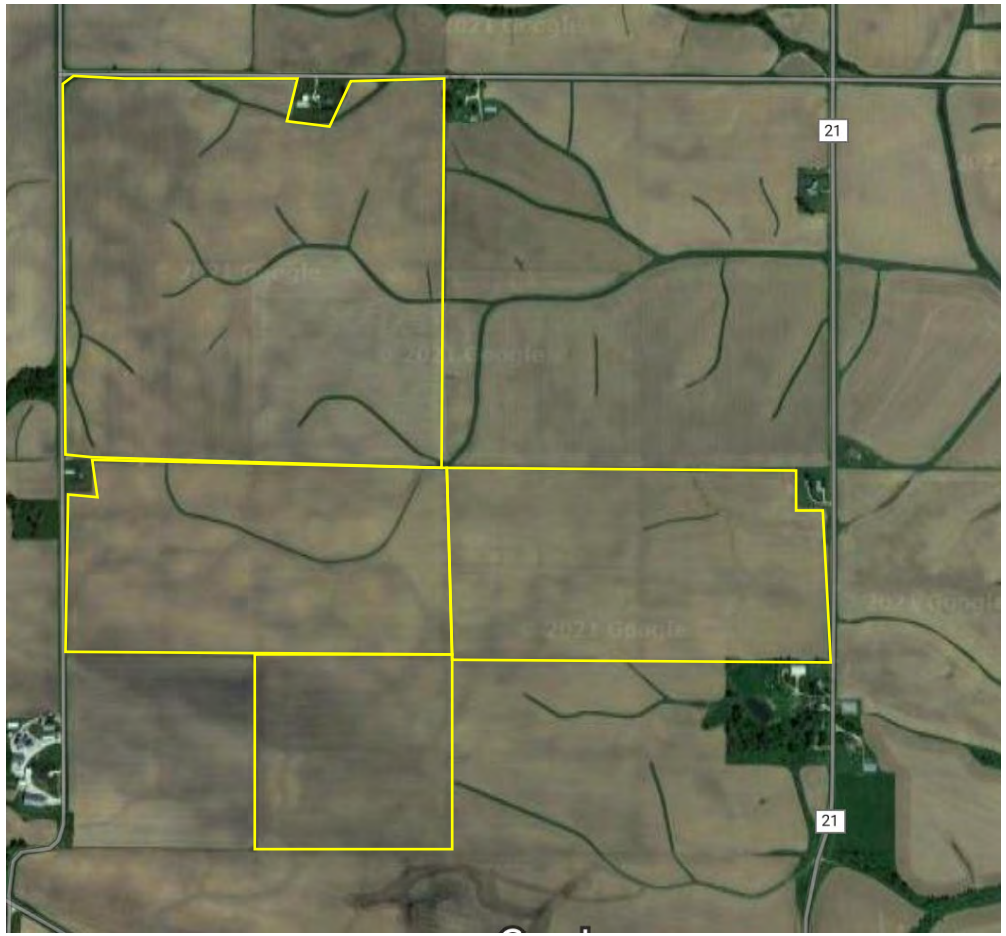
What's Eligible: 420 acres of new cover crop eligible for enrollment in 2021

Enrollment: Farmer provides field boundaries and operational data on enroll.theoutcomesfund.com

Offer: Farmer receives offer calibrated to water and GHG outcomes, expected around $25/per acre.



Sample Farm Scenario



Contract: Farmer receives 50% of payment or $5,250 at time of contract signing.

Validation and Monitoring: Outcomes Fund staff conduct field visits, monitoring and verification.

Second Payment: Farmer receives remaining 50% of payment or $5,250 made after verification.

Reenrollment: Farmer can reenroll 420 acres starting in January 2022. Additional acres with new practices could be enrolled at that time.

For additional information or to enroll:
www.theoutcomesfund.com

Market Spotlight: ESMC

Caroline Wade

Program Director

Ecosystem Services Market Consortium

ECOSYSTEM SERVICES MARKET CONSORTIUM

ESMC Mission

To advance ecosystem service markets that incentivize farmers and ranchers to improve soil health systems that benefit society

ESMC
Ecosystem Services Market Consortium

ECOSYSTEM SERVICES MARKET

Conceived and Designed…

…for Agriculture

…to Overcome Past Market Challenges

…to Recognize and Reward Farmers & Ranchers for their Impacts

ESMC/ESMRC Funders

FFAR
McKnight Foundation
The Nature Conservancy — Protecting nature. Preserving life.
USDA NRCS — United States Department of Agriculture, Natural Resources Conservation Service
The Ida and Robert Gordon Family Foundation
General Mills
United Soybean Board
Walton Family Foundation
Noble Research Institute

ESMC/ESMRC Founding Circle Members

Soil Health Institute
Nestlé
Corteva agriscience
Noble Research Institute
TruTerra
General Mills
Danone North America
Cargill — Helping the world thrive
ADM
McDonald's
National Fish and Wildlife Foundation
NFWF
Bunge
Nutrien Ag Solutions
syngenta
The Nature Conservancy — Protecting nature. Preserving life.

ESMC/ESMRC Legacy Partner Members

California Almonds — Almond Board of California
Farmers Business Network
Missouri Soybeans
MissouriCorn Merchandising Council
The Moonshot Factory
National Corn Growers Association
GROWMARK
National Association of Conservation Districts
Soil Health Partnership
CTIC
Sand County Foundation
IL Corn — ilcorn.org
The Campbell Foundation
National Association of Wheat Growers
American Farmland Trust — Saving the Land That Sustains Us
National Farmers Union
OpenTEAM
NCBA — National Cattlemen's Beef Association
Low Carbon Prosperity Institute
WWF
Trust in Food — A Farm Journal Initiative
Pivot Bio
Farm Foundation
Vence
K·COE ISOM
Sustainable Northwest
Field to Market
ASA — American Soybean Association
Cornell Atkinson Center for Sustainability
Mars
Tyson
FarmMobile
ARVA Intelligence
Silicon Ranch
Sorghum Checkoff
Anuvia — Planet Inspired Products
native energy — A Public Benefit Corporation
The Fertilizer Institute
American Society of Agronomy
Crop Science Society of America
American Farm Bureau Federation
Stewardship Index for Specialty Crops
Newtrient
Arizona State University
American Sugarbeet Growers Association
Soil Science Society of America

How is ESMC Different?

- **Non-profit** organization
- Collaborative effort with **entire ag supply chain** at the table
- Investment of $22M+ in technologically advanced quantification & verification approaches to drop costs, reduce producer burden, & achieve scale
- Research, development, and demonstration in focused pilots
- **Low risk**, annual commitment during pilot phase

How is ESMC Different?

- Systems-based and **practice-agnostic**; cropland and grazing
- **Field by field**, not whole farm
- Science and outcomes-based; pay for performance
- **Stacked assets** pays producers for **4 credits in 1 process**
  - Soil C (removals), net GHG (reductions), water quality & water conservation
- Generation of credits for **multiple markets**
  - Corporate supply chain reporting (scope 3), offset and compliance markets (scope 1)

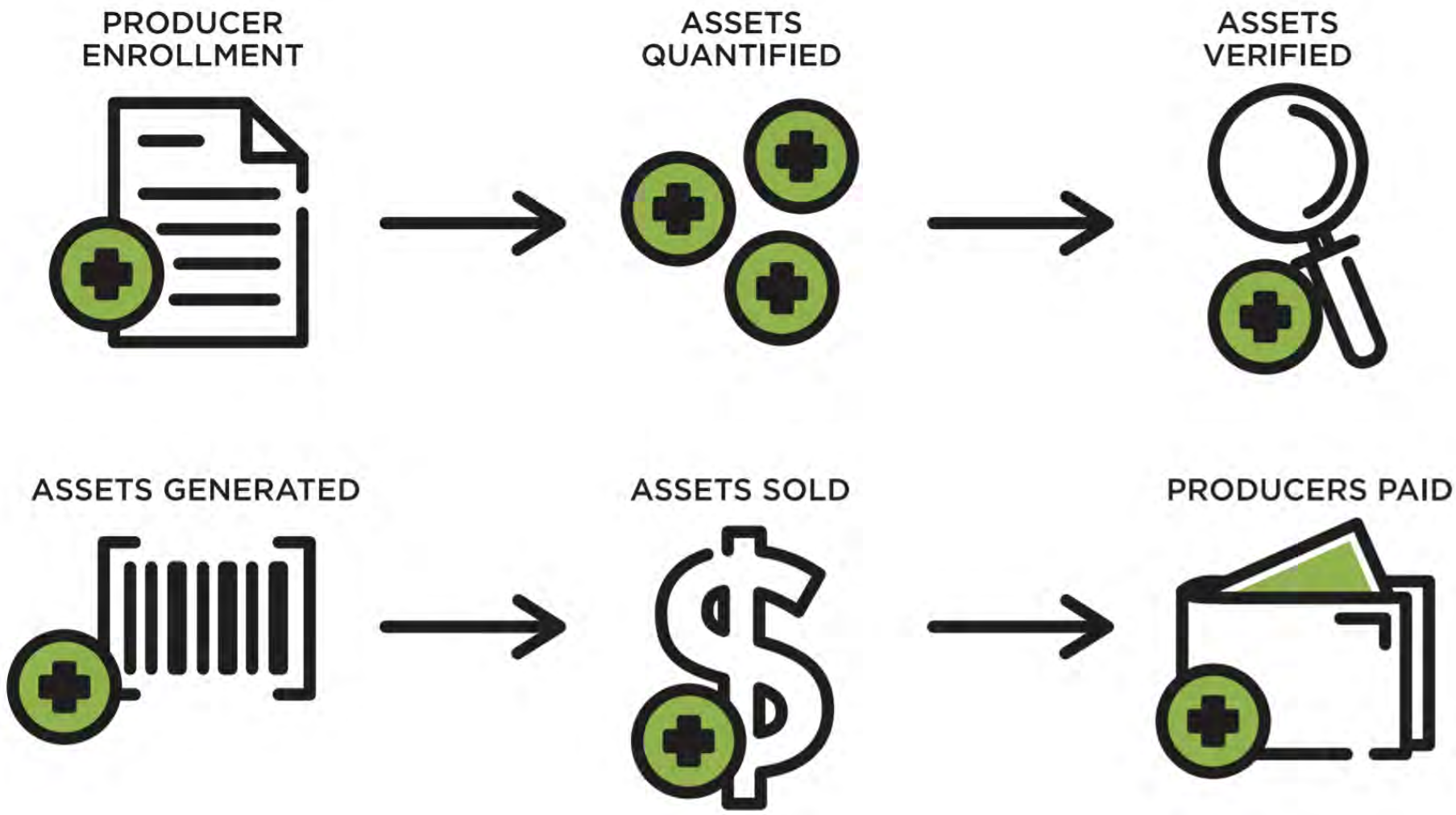
ESMC
Ecosystem Services Market Consortium

Ecosystem Services Market Research Consortium Goals

- **Reduce costs**
- **Improve quantification** of outcomes
- **Streamline** data entry, monitoring, reporting, verification
- Improve and **simplify sale and tracking** of multiple assets/credits
- Increase interest and participation of producers and buyers to **scale the program**
- Bring **maximum value to producers** for their conservation efforts
- Create **a market that works for all** stakeholders

ESMC Market Function Overview:

ESMC
Ecosystem Services Market Consortium

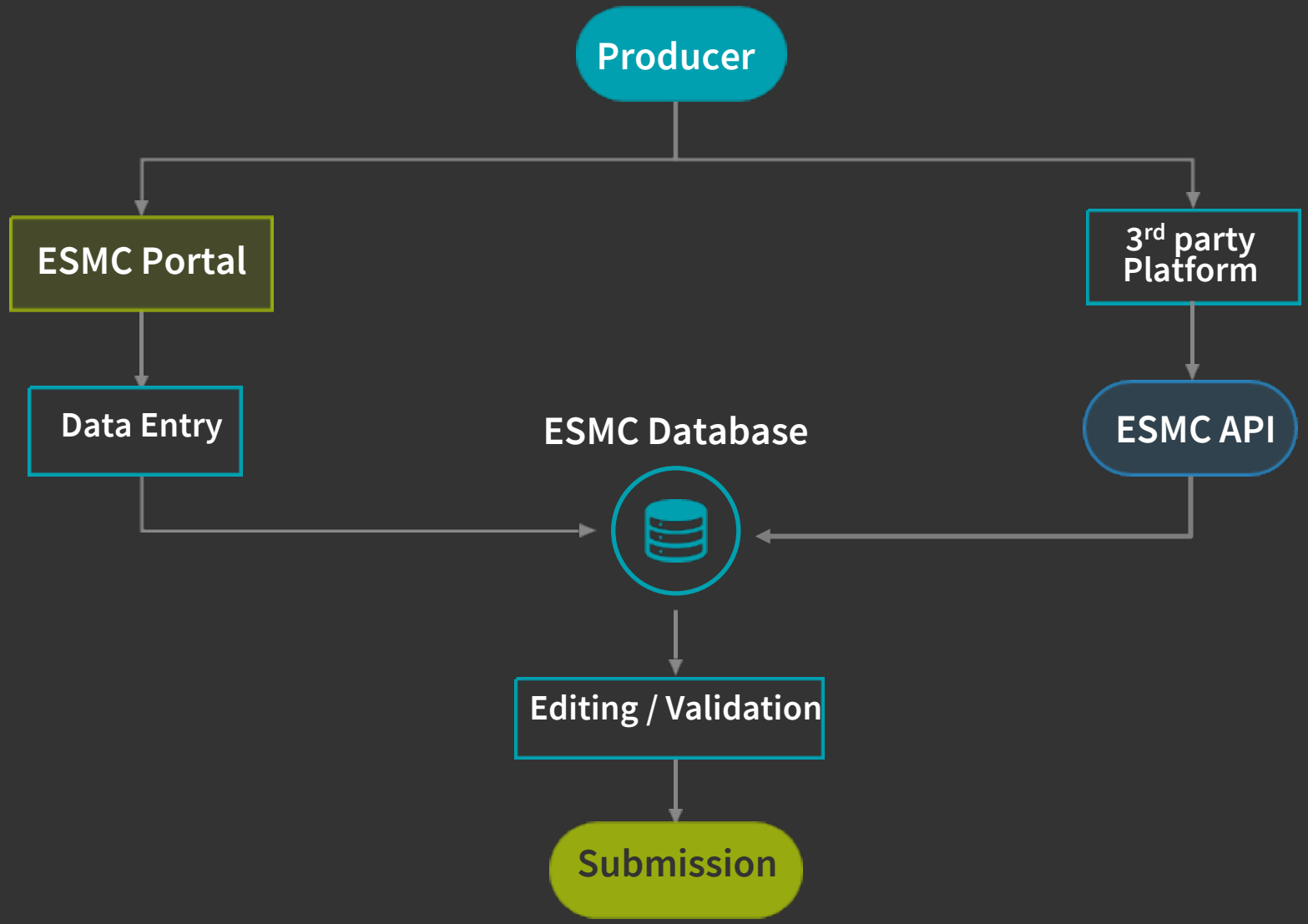


How Growers are Paid Annually for Multiple Ecosystem Services Impacts & Outcomes

Program Enrollment Steps

1. Producer creates an ESMC account
2. Producer or Advisor identifies fields for enrollment
3. Field stratification and soil sampling through ESMC
4. Producer or Advisor imports or enters field management data in the ESMC Producer Portal
5. Data self-certification and Producer Agreement
6. Data submission and auto-validation

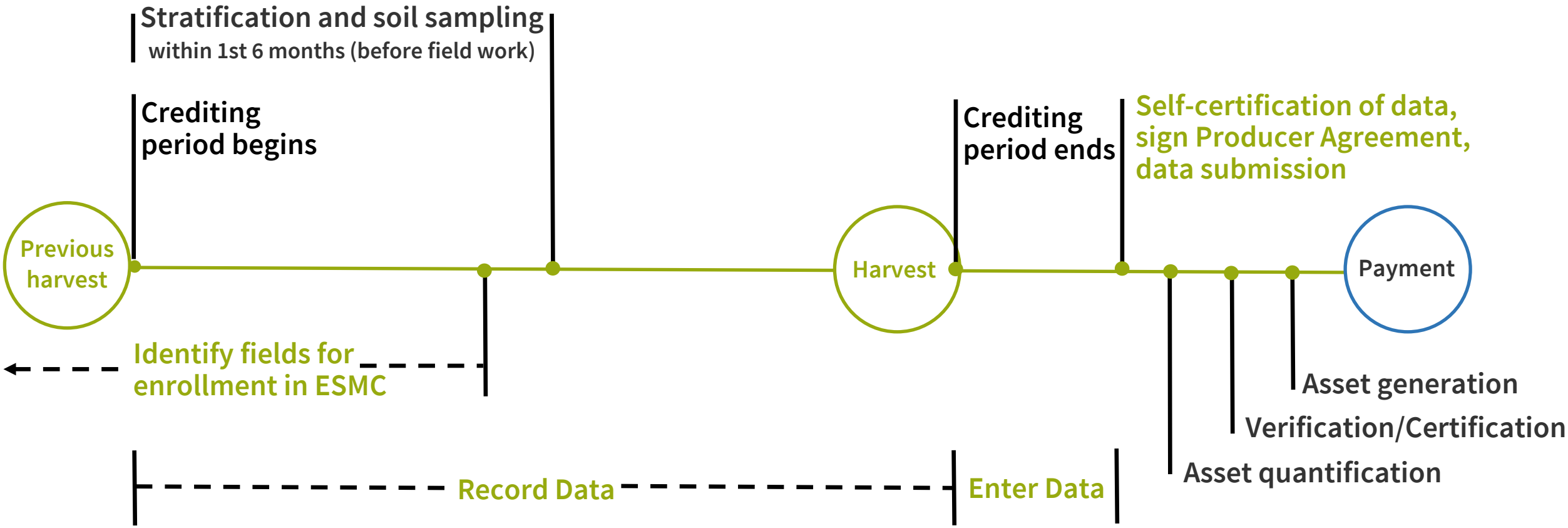
Data Collection Option



Annual Schedule

Crop land

Farmer activities
ESMC activities



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Stacked assets and multiple markets in 1 process

Scope 1 Market – voluntary & compliance grade offsets	Soil C (removals)	net GHGs (reductions)	Water Quality	
Scope 3 Market – corporate supply chain reporting	Soil C (removals)	net GHGs (reductions)	Water Quality	Water Quantity

- Eligibility depends on scope, environmental attribute, and buyer demand
- Value of asset depends on the extent of change

Scenarios

- **Scope 1 carbon (offset)** requires a new practice change
- Additional data and proof of ownership requirements

- Rented scenario eligible on 500 acres in 2022
  - no-till corn eligible as the new practice
- Owned scenario eligible on 420 acres in 2021
  - new acres w/Cereal Rye before soybean eligible as the new practice
- Owned scenario eligible on 80 additional acres in 2022
  - new acres w/no-till corn eligible as the new practice

Scenarios

- **Scope 1 carbon (offset)**
  - quantification baseline is producer's prior 3 years
- Rented scenario on 500 acres
  - No-till corn vs 2 tillage pass in 2022
  - Cereal rye vs no cereal rye in 2023
- Owned scenario on 420 acres
  - Cereal Rye/no-till soybeans vs no-till soybeans in 2021
  - Cereal Rye/no-till corn vs 2 tillage pass in 2022
  - Cereal Rye/no-till soybeans vs no-till soybeans in 2023
- Owned scenario on 80 additional acres
  - Cereal Rye/no-till corn vs Oats and Radish/2 tillage pass in 2022
  - No difference to quantify in 2023 or odd year cereal rye/no-till soybeans

Scenarios

- **Scope 3 (supply chain reporting)** requires a new practice change, eligibility similar to Scope 1
- Exploring baseline options for quantification
  - site specific baseline using producer's prior 3 years, or
  - derived from minimal data collection from producers (supplemented w/remote sensing), or
  - use of prevailing practice baselines

ESMC
Ecosystem Services Market Consortium

THANK YOU

Question and Answer

Questions submitted today and through the registration process
Some themes are out of scope for today's Q&A
Avenues for follow-up in case your question is not addressed
Feel free to point a question to a specific entity

The Ground Rules

Each presenter has one minute to respond to a question
Same order as the presentations: Nori, Indigo Ag, S&W, ESMC
Rotate person responding first

THANK YOU & WRAP-UP

- Please take the exit survey
  - Pop up after closing webinar
- Check out ISAP's website
  - Resource document
  - Video recording
  - CEU request form
  - Calendar of events
- Follow up email on Tuesday

Connect with our Presenters

https://nori.com

IndigoAg.com/FFTF

www.TheOutcomesFund.com

https://ecosystemservicesmarket.org/

ILLINOIS SUSTAINABLE AG PARTNERSHIP

www.ilsustainableag.org

Stay Tuned!

ISAP's Ecosystem Market Forum Series:

3-part series, June 2021

Stay tuned for more info to come

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www.ilsustainableag.org