UMRBA
Upper Mississippi River Basin Association

Pre-Workshop Webinar: Projects Addressing Gaps in Financial, Research, and Communication/Social Science in the UMR basin

Introductions: The UMRBA Team

Kirsten Wallace, Executive Director

Brian Stenquist, Assistant to the Executive Director

Lauren Salvato, Water Quality Program Director

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Agenda Overview

Topic	Presenters
Cover Crop Incentives Directory and Illinois Sustainable Agricultural Partnership Initiatives	Helen VanBeck, American Farmland Trust
A Guide to Water Quality, Climate, Social, and Economic Outcomes Estimation Tools	Dr. Michelle Perez & Aysha Tapp Ross, American Farmland Trust
Tools and Opportunities for Cultivating Watershed Leadership	Jenny Seifert, UW Madison, Division of Extension

Multi-Benefit Conservation Practice Workshop
November 9-10, 2022

FINANCIAL

TECHNICAL

COMMUNICATION/SOCIAL SCIENCE

UMRBA
Upper Mississippi River Basin Association

Questions

The Next Pre-Workshop Webinar

Federal funding opportunities for conservation practices with multiple benefits

- September 13, 2023 from 1 to 3 p.m. CST
- Featuring USEPA and NRCS staff as well as Quantified Ventures about their role in supporting State Revolving Fund projects

Multi-Benefit Conservation Practice Workshop
Focus: Leverages Points of Change
October 3-4, 2023

Leverage points are places within a complex system where a small change in one thing can produce big changes in everything.

FINANCIAL POLICY TECHNICAL LEADERSHIP PARTNERSHIPS

UMRBA
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UMRBA
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ILLINOIS
SUSTAINABLE
AG PARTNERSHIP

June 29, 2023
UMRBA Workshop

Incentive Directories & ISAP Initiatives

ISAP's PURPOSE

The **Illinois Sustainable Ag Partnership** is a non-profit made up of 15 member organizations working collaboratively to promote whole system conservation solutions focused on soil health and water management to reduce nutrient losses and meet sustainability goals.


P C M
Precision Conservation Management


American Farmland Trust


Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN


ASSOCIATION OF ILLINOIS
SOIL & WATER
CONSERVATION DISTRICTS


THE WETLANDS
INITIATIVE


ILLINOIS SUSTAINABLE AG PARTNERSHIP


ILLINOIS
CHAPTER
Land Improvement Contractors of America
LICA


ILLINOIS
SOYBEAN
ASSOCIATION


MIDWEST
Dairy


Illinois
Central
College


THE
ZEA MAYS
FOUNDATION


PHEASANTS
forever
The Habitat
Organization

QUAIL
forever
The Habitat
Organization


ILCORN
WWW.ILCORN.ORG


ADMC
Agricultural Drainage Management
Coalition


The Nature
Conservancy


CERTIFIED
CROP
ADVISER

Core Strategies

How do we create our desired impact?

Increase farmer recognition in the ECONOMIC VALUE of conservation practices.

Serve as the clearinghouse for SOIL HEALTH & CONSERVATION DRAINAGE EDUCATION.

Accelerate the ADOPTION OF CONSERVATION PRACTICES that improve soil health, "carbon cycle balance", & water quality.

Enabling Outcomes

What is needed to bring about change?

Farmers and advisors have access to data and view ISAP as a trusted source of information.

All education is action oriented, fosters knowledge transfer, and motivates change on the landscape.

ISAP members and partners are using a consistent message to inform and engage key audiences.

Policies and funding priorities are supporting practices with the biggest water quality and climate impacts.

Desired Impact

What is our "long-term" goal?

Illinois agriculture voluntarily meets NLRS goals and benefits from being part of the climate solution

ISAP's ROLE

- Platform for disseminating relevant research
- Coordinating field days and/or other events
- Providing expertise through our collaborative partnerships
- Provide resources for soil health networks, outreach, and education

Program Pillars

Production Risk Management

- Risk Management Conference
- Climate Adaptation
- Ecosystem Markets

Soil Health & In-field Management

- Advanced Soil Health Training
- Technical Resources

Water Quality & Edge-of-Field Practices

- Advanced Conservation Drainage Training
- Agricultural Conservation Planning Framework

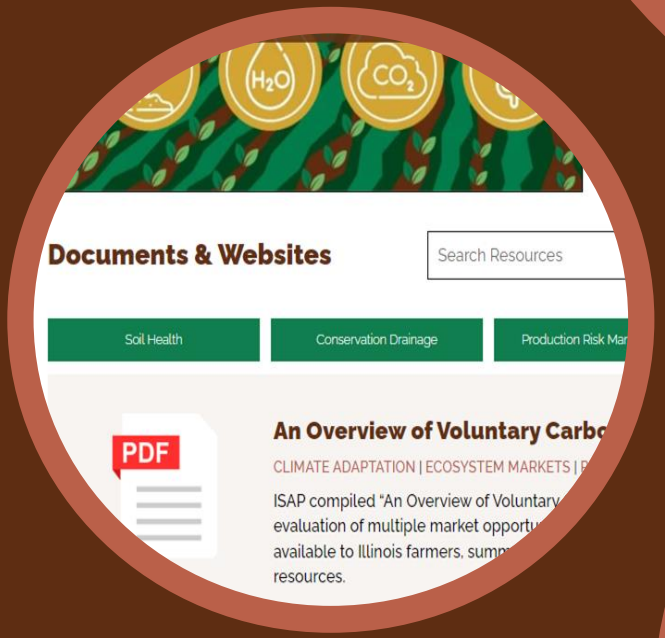
Network of Practitioners

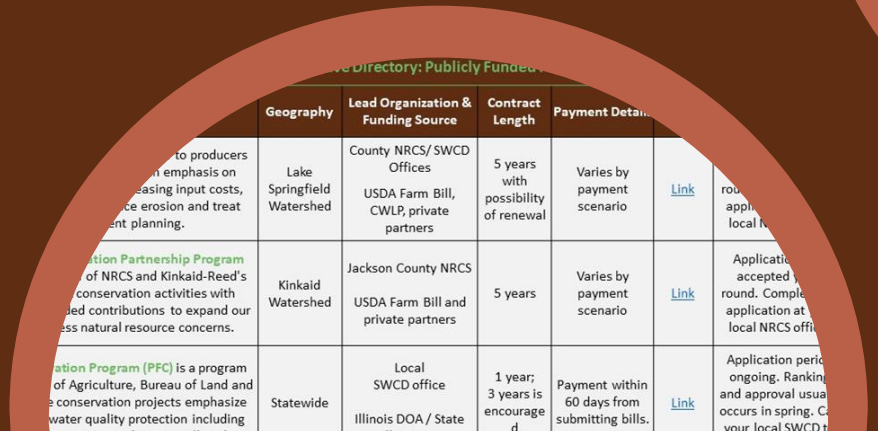
- Conservation Story Map
- Alphabet Soup
- Illinois Cover Crop On-Farm Network

ISAP'S Resources

- Fact Sheets and Directories
  - Soil Health & Cover Crops
  - Edge of Field
  - Climate
- Communications
  - Website, Blogs, The Aggregate

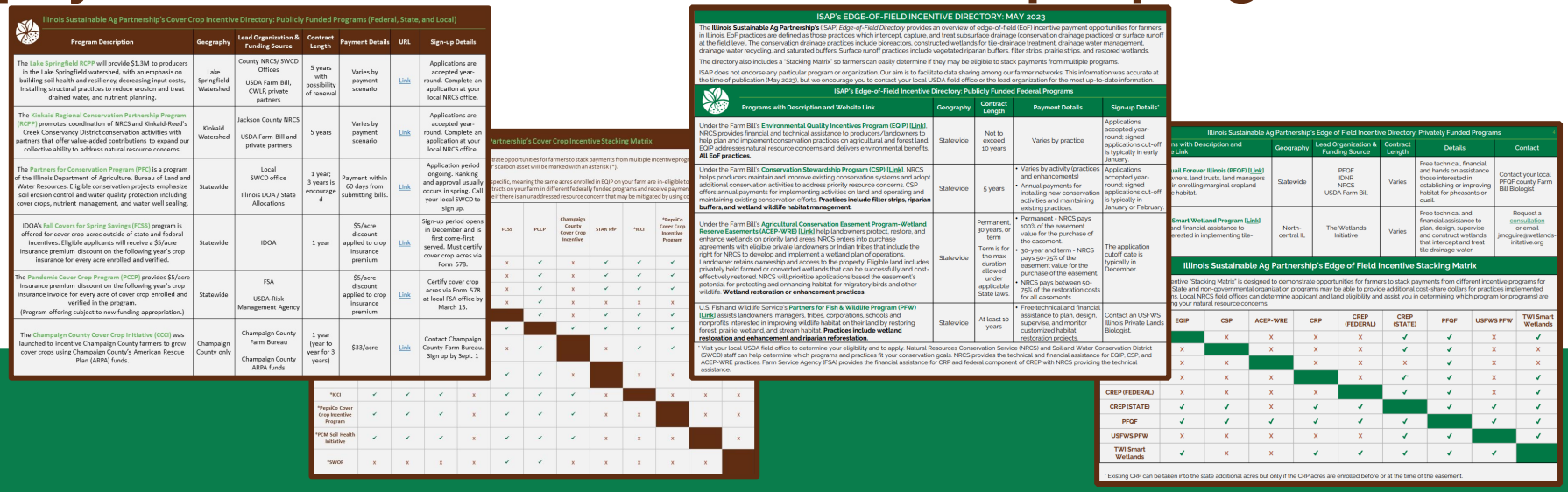
THE AGGREGATE





ISAP's Incentive Directories

- Compares programs offering financial incentive opportunities to Illinois farmers.
- Cover Crops (15 programs) and Edge of Field (18 programs)
- The Stacking Matrices allows farmers to easily determine if payments are stackable across multiple programs.



Illinois Cover Crop Incentive Directory

Illinois Sustainable Ag Partnership's Cover Crop Incentive Directory: Publicly Funded Programs (Federal, State, and Local)

Program Description	Geography	Lead Organization & Funding Source	Contract Length	Payment Details	URL	Sign-up Details
The **Lake Springfield RCPP** will provide $1.3M to producers in the Lake Springfield watershed, with an emphasis on building soil health and resiliency, decreasing input costs, installing structural practices to reduce erosion and treat drained water, and nutrient planning.	Lake Springfield Watershed	County NRCS/ SWCD Offices USDA Farm Bill, CWLP, private partners	5 years with possibility of renewal	Varies by payment scenario	Link	Applications are accepted year-round. Complete an application at your local NRCS office.
The **Kinkaid Regional Conservation Partnership Program (RCPP)** promotes coordination of NRCS and Kinkaid-Reed's Creek Conservancy District conservation activities with partners that offer value-added contributions to expand our collective ability to address natural resource concerns.	Kinkaid Watershed	Jackson County NRCS USDA Farm Bill and private partners	5 years	Varies by payment scenario	Link	Applications are accepted year-round. Complete an application at your local NRCS office.
The **Partners for Conservation Program (PFC)** is a program of the Illinois Department of Agriculture, Bureau of Land and Water Resources. Eligible conservation projects emphasize soil erosion control and water quality protection including cover crops, nutrient management, and water well sealing.	Statewide	Local SWCD office Illinois DOA / State Allocations	1 year; 3 years is encouraged	Payment within 60 days from submitting bills.	Link	Application period ongoing. Ranking and approval usually occurs in spring. Call your local SWCD to sign up.
IDOA's **Fall Covers for Spring Savings (FCSS)** program is offered for cover crop acres outside of state and federal incentives. Eligible applicants will receive a $5/acre insurance premium discount on the following year's crop insurance for every acre enrolled and verified.	Statewide	IDOA	1 year	$5/acre discount applied to crop insurance premium	Link	Sign-up period opens in December and is first come-first served. Must certify cover crop acres via Form 578.
The **Pandemic Cover Crop Program (PCCP)** provides $5/acre insurance premium discount on the following year's crop insurance invoice for every acre of cover crop enrolled and verified in the program. (Program offering subject to new funding appropriation.)	Statewide	FSA USDA-Risk Management Agency		$5/acre discount applied to crop insurance premium	Link	Certify cover crop acres via Form 578 at local FSA office by March 15.
The **Champaign County Cover Crop Initiative (CCCI)** was launched to incentive Champaign County farmers to grow cover crops using Champaign County's American Rescue Plan (ARPA) funds.	Champaign County only	Champaign County Farm Bureau Champaign County ARPA funds	1 year (year to year for 3 years)	$33/acre	Link	Contact Champaign County Farm Bureau. Sign up by Sept. 1

Illinois Sustainable Ag Partnership's Cover Crop Incentive Stacking Matrix

king Matrix" is designed to demonstrate opportunities for farmers to stack payments from multiple incentive programs. Programs that are claiming a farmer's carbon asset will be marked with an asterisk (*).

hips shown on this matrix are acre-specific, meaning the same acres enrolled in EQIP on your farm are in-eligible to receive payments from . However, you can enroll separate tracts on your farm in different federally funded programs and receive payments that way. For federal only eligible for financial assistance if there is an unaddressed resource concern that may be mitigated by using cover crops.

	CSP	RCPP	PFC	FCSS	PCCP	Champaign County Cover Crop Incentive	STAR PfP	*ICCI	*PepsiCo Cover Crop Incentive Program	*PCM Soil Health Incentive	*SWOF
	x	x	x	x	✓	x	✓	✓	✓	✓	x
		x	x	x	✓	x	✓	✓	✓	✓	x
	x		x	x	✓	x	✓	✓	✓	✓	x
	x	x		x	✓	x	x	x	x	x	x
	x	x	x		✓	x	✓	✓	✓	✓	✓
	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	x	x	x	x	✓		x	✓	✓	✓	x
	✓	✓	x	✓	✓	x		x	x	x	x
*ICCI	✓	✓	x	✓	✓	✓	x		x	x	x
*PepsiCo Cover Crop Incentive Program	✓	✓	x	✓	✓	✓	x	x		x	x
*PCM Soil Health Initiative	✓	✓	x	✓	✓	✓	x	x	x		x
*SWOF	x	x	x	✓	✓	x	x	x	x	x	

SCAN ME

Illinois Edge of Field Incentive Directory

ISAP's EDGE-OF-FIELD INCENTIVE DIRECTORY: MAY 2023

The **Illinois Sustainable Ag Partnership's** (ISAP) *Edge-of-Field Directory* provides an overview of edge-of-field (EoF) incentive payment opportunities for farmers in Illinois. EoF practices are defined as those practices which intercept, capture, and treat subsurface drainage (conservation drainage practices) or surface runoff at the field level. The conservation drainage practices include bioreactors, constructed wetlands for tile-drainage treatment, drainage water management, drainage water recycling, and saturated buffers. Surface runoff practices include vegetated riparian buffers, filter strips, prairie strips, and restored wetlands.

The directory also includes a "Stacking Matrix" so farmers can easily determine if they may be eligible to stack payments from multiple programs.

ISAP does not endorse any particular program or organization. Our aim is to facilitate data sharing among our farmer networks. This information was accurate at the time of publication (May 2023), but we encourage you to contact your local USDA field office or the lead organization for the most up-to-date information.

ISAP's Edge-of-Field Incentive Directory: Publicly Funded Federal Programs

Programs with Description and Website Link	Geography	Contract Length	Payment Details	Sign-up Details*
Under the Farm Bill's **Environmental Quality Incentives Program (EQIP) [Link]**, NRCS provides financial and technical assistance to producers/landowners to help plan and implement conservation practices on agricultural and forest land. EQIP addresses natural resource concerns and delivers environmental benefits. **All EoF practices.**	Statewide	Not to exceed 10 years	Varies by practice	Applications accepted year-round; signed applications cut-off is typically in early January.
Under the Farm Bill's **Conservation Stewardship Program (CSP) [Link]**, NRCS helps producers maintain and improve existing conservation systems and adopt additional conservation activities to address priority resource concerns. CSP offers annual payments for implementing activities on land and operating and maintaining existing conservation efforts. **Practices include filter strips, riparian buffers, and wetland wildlife habitat management.**	Statewide	5 years	• Varies by activity (practices and enhancements) • Annual payments for installing new conservation activities and maintaining existing practices.	Applications accepted year-round; signed applications cut-off is typically in January or February.
Under the Farm Bill's **Agricultural Conservation Easement Program-Wetland Reserve Easements (ACEP-WRE) [Link]** help landowners protect, restore, and enhance wetlands on priority land areas. NRCS enters into purchase agreements with eligible private landowners or Indian tribes that include the right for NRCS to develop and implement a wetland plan of operations. Landowner retains ownership and access to the property. Eligible land includes privately held farmed or converted wetlands that can be successfully and cost-effectively restored. NRCS will prioritize applications based the easement's potential for protecting and enhancing habitat for migratory birds and other wildlife. **Wetland restoration or enhancement practices.**	Statewide	Permanent, 30 years, or term Term is for the max duration allowed under applicable State laws.	• Permanent - NRCS pays 100% of the easement value for the purchase of the easement. • 30-year and term - NRCS pays 50-75% of the easement value for the purchase of the easement. • NRCS pays between 50-75% of the restoration costs for all easements.	The application cutoff date is typically in December.
U.S. Fish and Wildlife Service's **Partners for Fish & Wildlife Program (PFW) [Link]** assists landowners, managers, tribes, corporations, schools and nonprofits interested in improving wildlife habitat on their land by restoring forest, prairie, wetland, and stream habitat. **Practices include wetland restoration and enhancement and riparian reforestation.**	Statewide	At least 10 years	• Free technical and financial assistance to plan, design, supervise, and monitor customized habitat restoration projects.	Contact an USFWS Illinois Private Lands Biologist.

* Visit your local USDA field office to determine your eligibility and to apply. Natural Resources Conservation Service (NRCS) and Soil and Water Conservation District (SWCD) staff can help determine which programs and practices fit your conservation goals. NRCS provides the technical and financial assistance for EQIP, CSP, and ACEP-WRE practices. Farm Service Agency (FSA) provides the financial assistance for CRP and federal component of CREP with NRCS providing the technical assistance.

linois Sustainable Ag Partnership's Edge of Field Incentive Directory: Privately Funded Programs

iption and	Geography	Lead Organization & Funding Source	Contract Length	Details	Contact
inois (PFQF) [Link] sts, land managers rginal cropland	Statewide	PFQF IDNR NRCS USDA Farm Bill	Varies	Free technical, financial and hands on assistance those interested in establishing or improving habitat for pheasants or quail.	Contact your local PFQF county Farm Bill Biologist
d Program [Link] ssistance to lementing tile-	North-central IL	The Wetlands Initiative	Varies	Free technical and financial assistance to plan, design, supervise and construct wetlands that intercept and treat tile drainage water.	Request a consultation or email jmcguire@wetlands-initative.org

Sustainable Ag Partnership's Edge of Field Incentive Stacking Matrix

g Matrix" is designed to demonstrate opportunities for farmers to stack payments from different incentive programs for -governmental organization programs may be able to provide additional cost-share dollars for practices implemented s field offices can determine applicant and land eligibility and assist you in determining which program (or programs) are resource concerns.

	CSP	ACEP-WRE	CRP	CREP (FEDERAL)	CREP (STATE)	PFQF	USFWS PFW	TWI Smart Wetlands
	X	X	X	X	✓	✓	X	✓
		X	X	X	✓	✓	X	X
	X		X	X	X	✓	X	X
CRP	X	X	X		X	✓*	✓	X	✓
CREP (FEDERAL)	X	X	X	X		✓	✓	X	✓
CREP (STATE)	✓	✓	X	✓	✓		✓	✓	✓
PFQF	✓	✓	✓	✓	✓	✓		✓	✓
USFWS PFW	X	X	X	X	X	✓	✓		✓
TWI Smart Wetlands	✓	X	X	✓	✓	✓	✓	✓	

* Existing CRP can be taken into the state additional acres but only if the CRP acres are enrolled before or at the time of the easement.

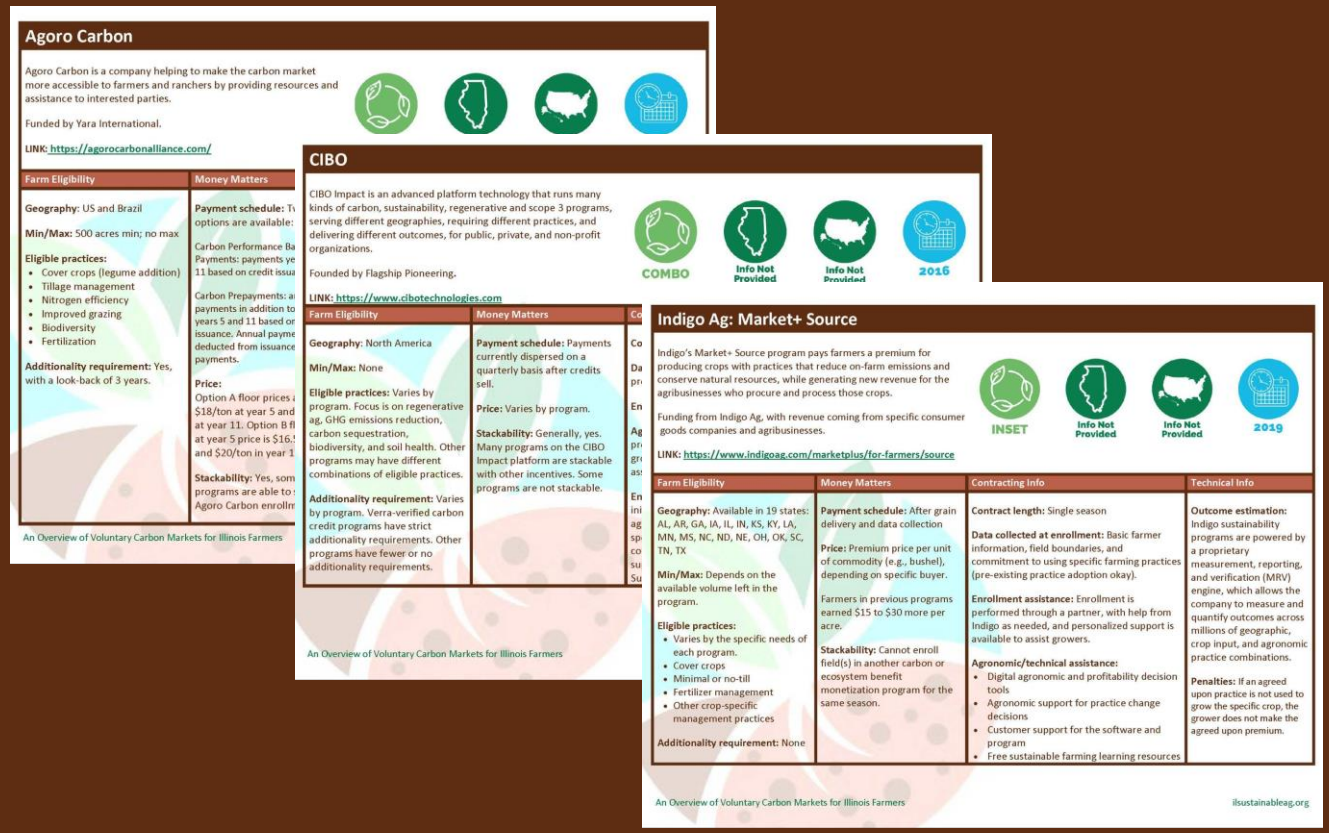
SCAN ME

SCAN ME

An Overview of Voluntary Carbon Markets for Illinois Farmers

Assist farmers and farm advisors in their evaluation of market opportunities available in Illinois

- Update of 2021 resource with additional programs
- Summaries of 15 different voluntary carbon markets
- Glossary of key terms



Agoro Carbon

Agoro Carbon is a company helping to make the carbon market more accessible to farmers and ranchers by providing resources and assistance to interested parties.

Funded by Yara International.

LINK: https://agorocarbonalliance.com/

Farm Eligibility	Money Matters
Geography: US and Brazil **Min/Max:** 500 acres min; no max **Eligible practices:** • Cover crops (legume addition) • Tillage management • Nitrogen efficiency • Improved grazing • Biodiversity • Fertilization **Additionality requirement:** Yes, with a look-back of 3 years.	**Payment schedule:** T options are available: Carbon Performance Ba Payments: payments ye 11 based on credit issua Carbon Prepayments: a payments in addition to years 5 and 11 based or issuance. Annual payme deducted from issuance payments. **Price:** Option A floor prices $18/ton at year 5 and at year 11. Option B fl at year 5 price is $16. and $20/ton in year 1 **Stackability:** Yes, som programs are able to Agoro Carbon enrollm

An Overview of Voluntary Carbon Markets for Illinois Farmers

CIBO

CIBO Impact is an advanced platform technology that runs many kinds of carbon, sustainability, regenerative and scope 3 programs, serving different geographies, requiring different practices, and delivering different outcomes, for public, private, and non-profit organizations.

Founded by Flagship Pioneering.

LINK: https://www.cibotechnologies.com

COMBO | Info Not Provided | Info Not Provided | 2016

Farm Eligibility	Money Matters
Geography: North America **Min/Max:** None **Eligible practices:** Varies by program. Focus is on regenerative ag, GHG emissions reduction, carbon sequestration, biodiversity, and soil health. Other programs may have different combinations of eligible practices. **Additionality requirement:** Varies by program. Verra-verified carbon credit programs have strict additionality requirements. Other programs have fewer or no additionality requirements.	**Payment schedule:** Payments currently dispersed on a quarterly basis after credits sell. **Price:** Varies by program. **Stackability:** Generally, yes. Many programs on the CIBO Impact platform are stackable with other incentives. Some programs are not stackable.

An Overview of Voluntary Carbon Markets for Illinois Farmers

Indigo Ag: Market+ Source

Indigo's Market+ Source program pays farmers a premium for producing crops with practices that reduce on-farm emissions and conserve natural resources, while generating new revenue for the agribusinesses who procure and process those crops.

Funding from Indigo Ag, with revenue coming from specific consumer goods companies and agribusinesses.

LINK: https://www.indigoag.com/marketplus/for-farmers/source

INSET | Info Not Provided | Info Not Provided | 2019

Farm Eligibility	Money Matters	Contracting Info	Technical Info
Geography: Available in 19 states: AL, AR, GA, IA, IL, IN, KS, KY, LA, MN, MS, NC, ND, NE, OH, OK, SC, TN, TX **Min/Max:** Depends on the available volume left in the program. **Eligible practices:** • Varies by the specific needs of each program. • Cover crops • Minimal or no-till • Fertilizer management • Other crop-specific management practices **Additionality requirement:** None	**Payment schedule:** After grain delivery and data collection **Price:** Premium price per unit of commodity (e.g., bushel), depending on specific buyer. Farmers in previous programs earned $15 to $30 more per acre. **Stackability:** Cannot enroll field(s) in another carbon or ecosystem benefit monetization program for the same season.	**Contract length:** Single season **Data collected at enrollment:** Basic farmer information, field boundaries, and commitment to using specific farming practices (pre-existing practice adoption okay). **Enrollment assistance:** Enrollment is performed through a partner, with help from Indigo as needed, and personalized support is available to assist growers. **Agronomic/technical assistance:** • Digital agronomic and profitability decision tools • Agronomic support for practice change decisions • Customer support for the software and program • Free sustainable farming learning resources	**Outcome estimation:** Indigo sustainability programs are powered by a proprietary measurement, reporting, and verification (MRV) engine, which allows the company to measure and quantify outcomes across millions of geographic, crop input, and agronomic practice combinations. **Penalties:** If an agreed upon practice is not used to grow the specific crop, the grower does not make the agreed upon premium.

An Overview of Voluntary Carbon Markets for Illinois Farmers

ilsustainableag.org

VOLUNTARY CARBON MARKETS - SIMPLIFIED

ILLINOIS SUSTAINABLE AG PARTNERSHIP

Farmer learns about program and is willing to implement a conservation practice that **reduces the production of GHG** or **sequesters carbon in the soil**

The farmer then...
- Completes enrollment forms
- Signs a contract
- Begins implementing the practice(s)

OFFSET MARKET

Buyer is **outside** of Ag industry

Examples: transportation & manufacturing companies

Farmer works with **Project Manager** to compile data used to estimate GHG reductions

Project Manager combines GHG reductions from multiple farms and sells credits to a third party that uses the credits to offset their (Scope 1) emissions

Farmer provides data used to estimate GHG reductions (which may require delivery of grain to the buyer)

Ag corporation combines reductions for all participating farms within its supply chain and claims reductions in their Scope 3 emissions

INSET MARKET

Buyer is **inside** of Ag industry

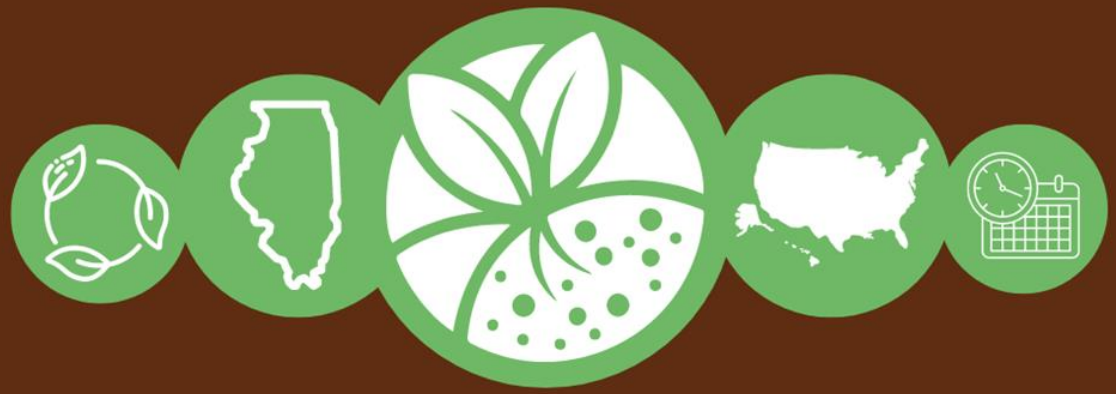
Examples: input suppliers & grain buyers

Verification process includes additional reporting to confirm practice change and GHG reduction.

Farmer gets paid

per credit sold

per credit sold or a premium per unit of grain sold



ISAP's goal was to provide farmers with transparent and practical information to increase their confidence in evaluating ecosystem market opportunities.

ISAP does not endorse any particular program or company.

Our aim is to facilitate data sharing among our farmer networks.

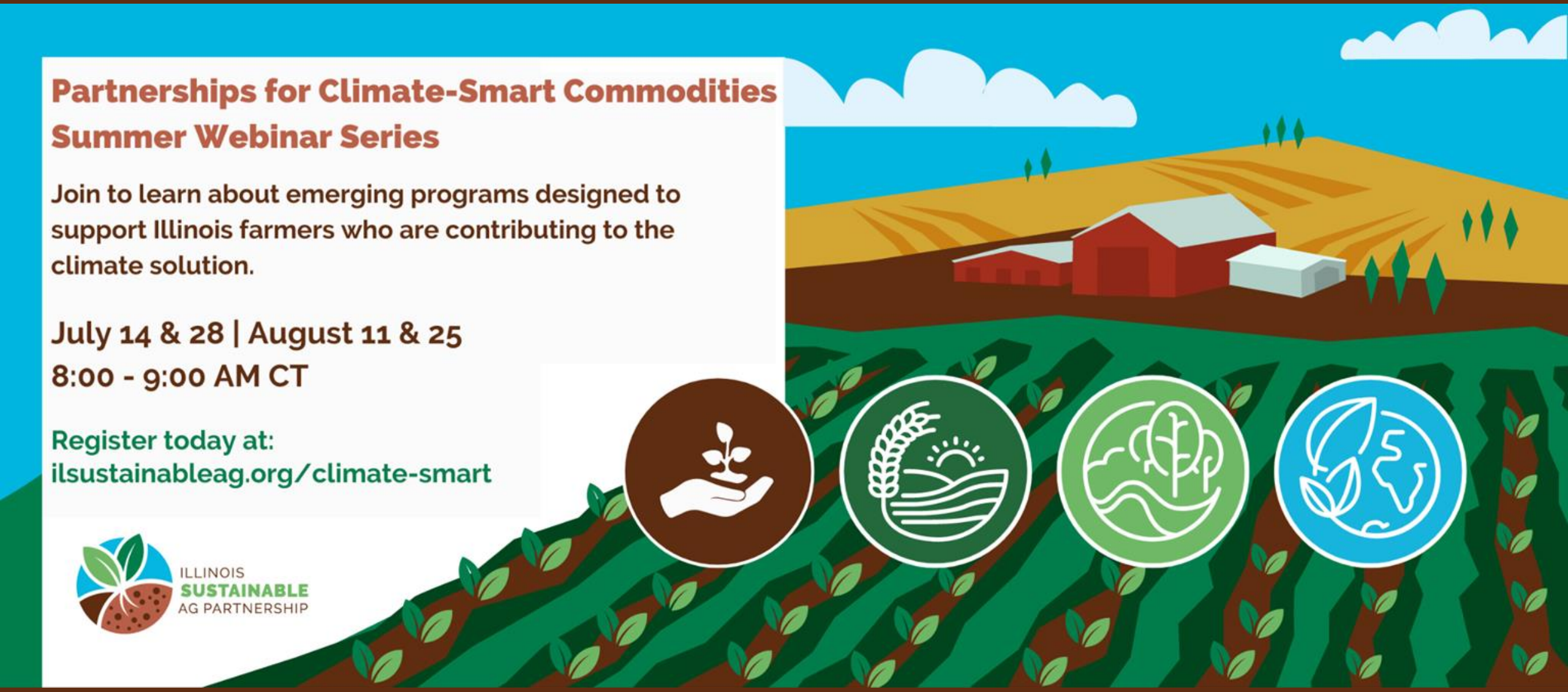
Partnerships for Climate-Smart Commodities Summer Webinar Series

Join to learn about emerging programs designed to support Illinois farmers who are contributing to the climate solution.

July 14 & 28 | August 11 & 25
8:00 - 9:00 AM CT

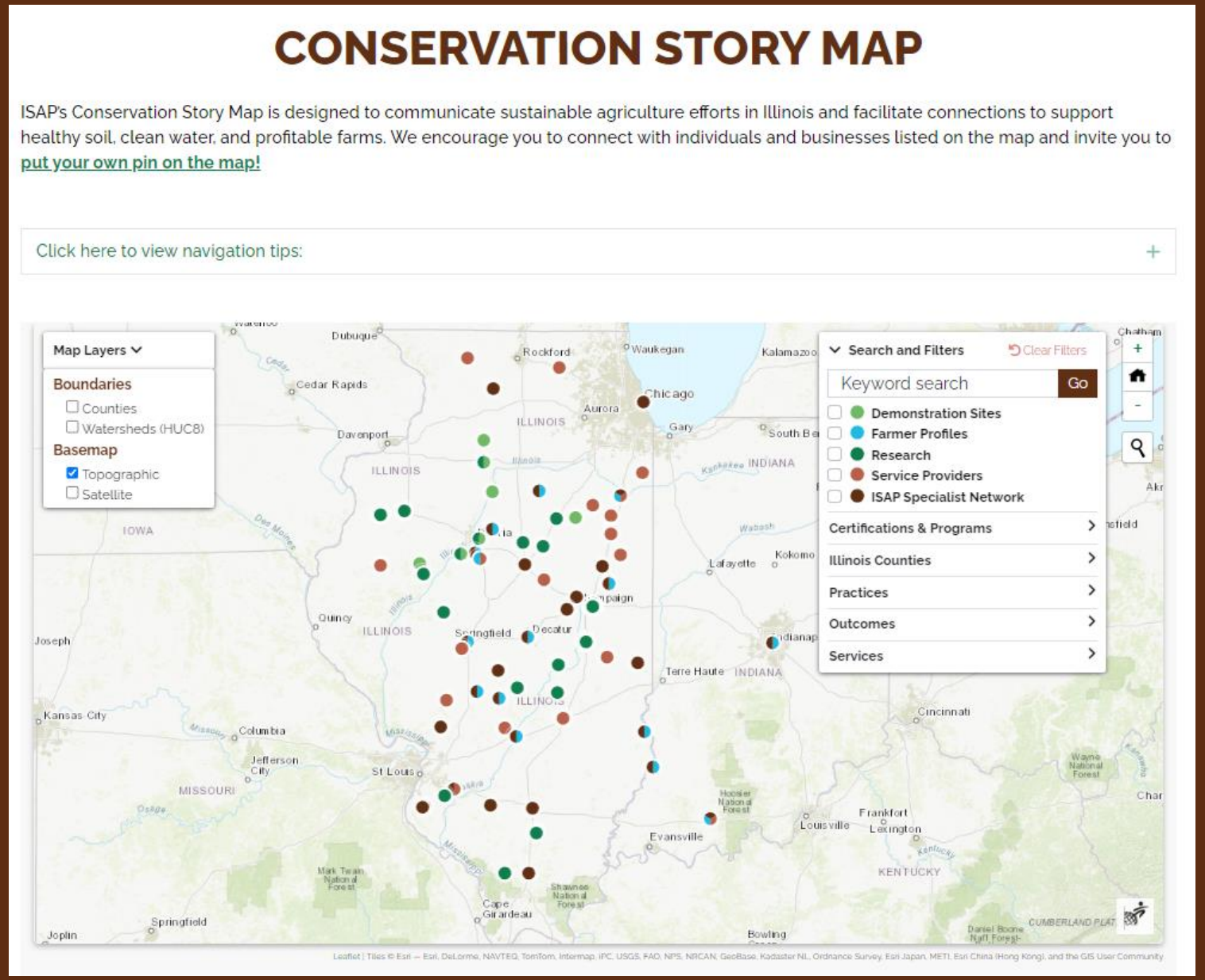
Register today at:
ilsustainableag.org/climate-smart

ILLINOIS SUSTAINABLE AG PARTNERSHIP



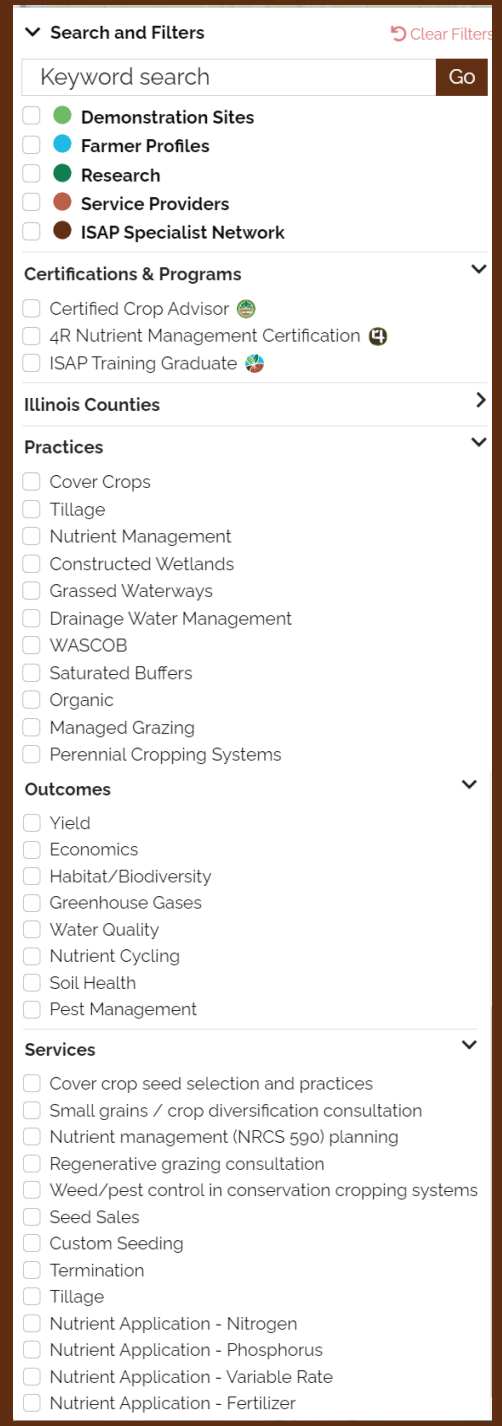
Conservation Story Map

ilsustainableag.org/conservation-story-map

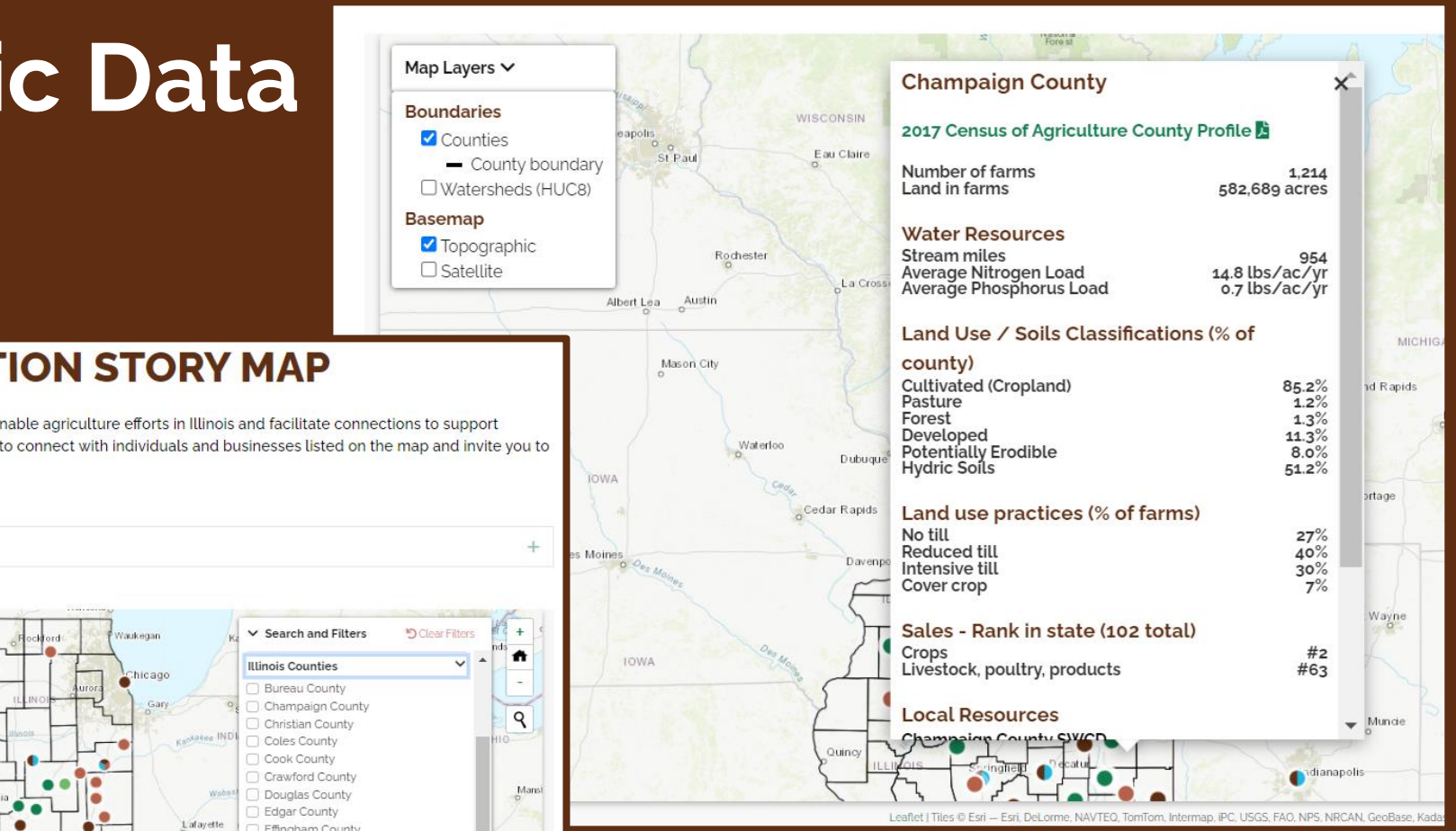


Conservation Story Map

- Features demo sites, farmers, researchers, service providers, and conservation professionals in the ISAP Specialist Network
  - includes notation for CCA and other certifications
- Allows users to filter results by selecting a combination of conservation practices, beneficial outcomes, and available ag services.
- Shares the story of conservation agriculture in Illinois



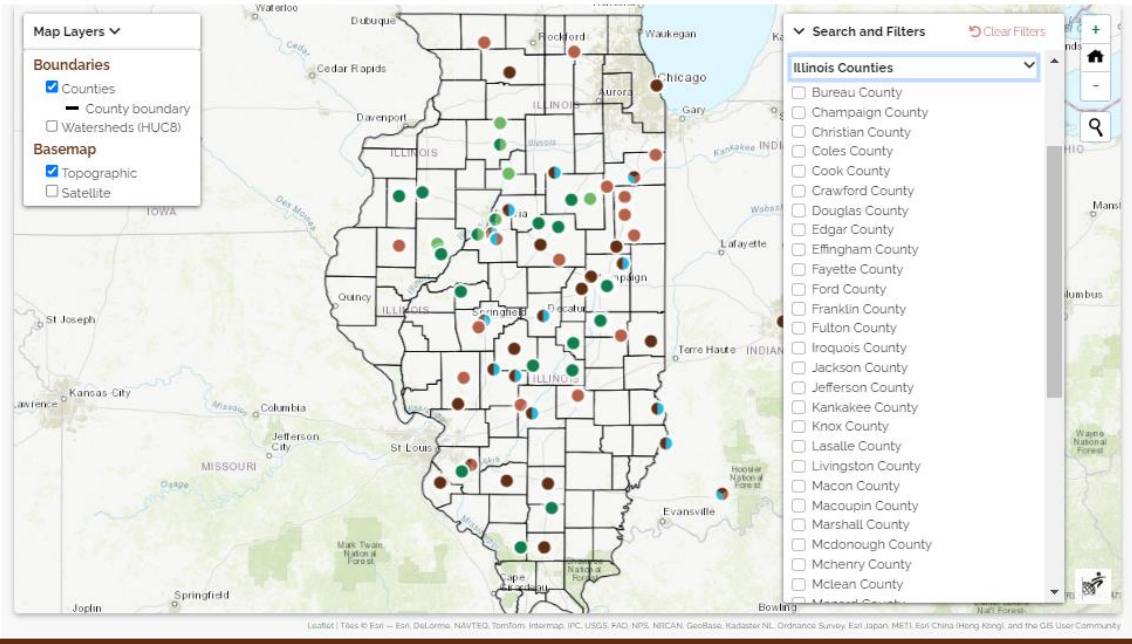
County Specific Data



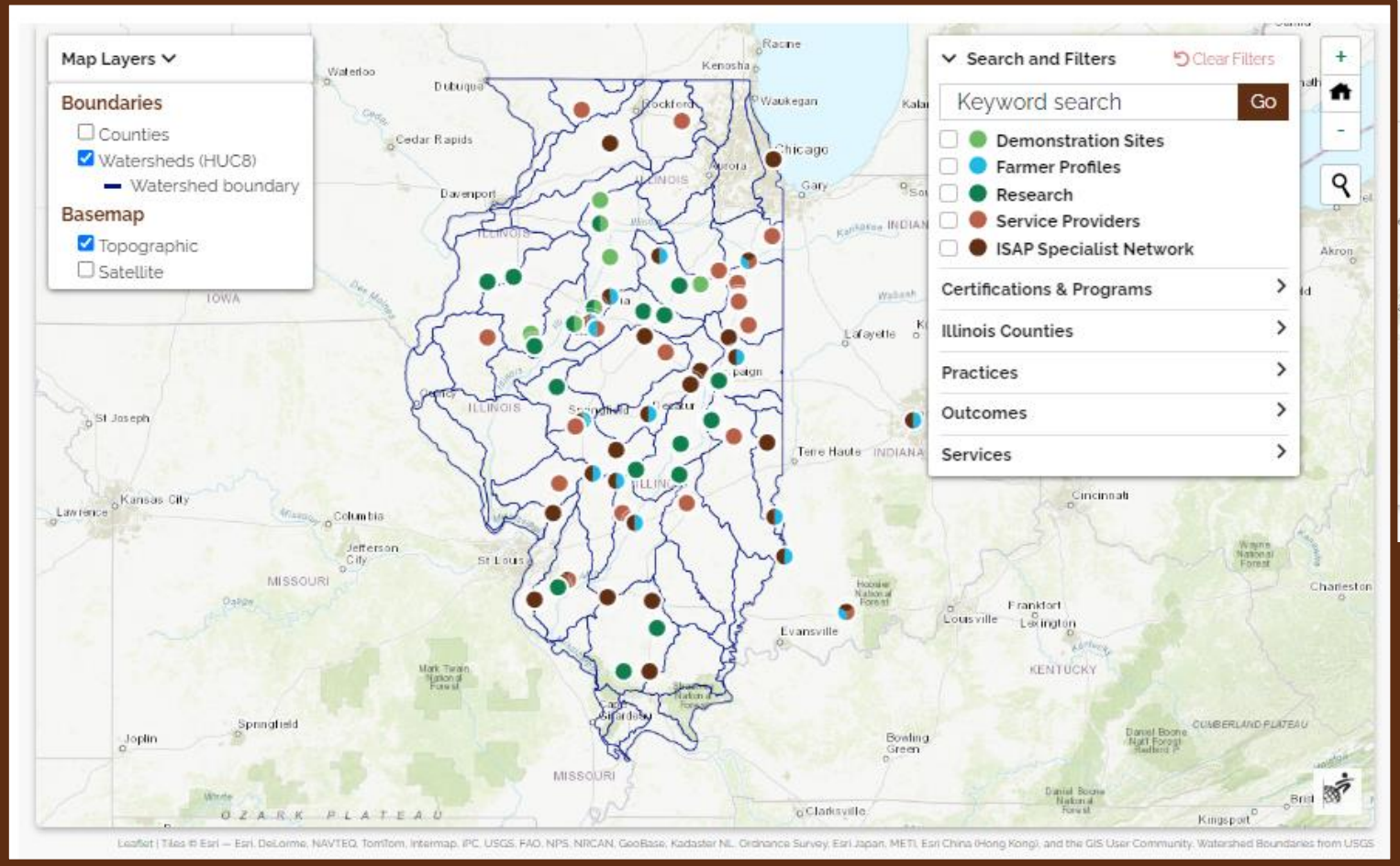
CONSERVATION STORY MAP

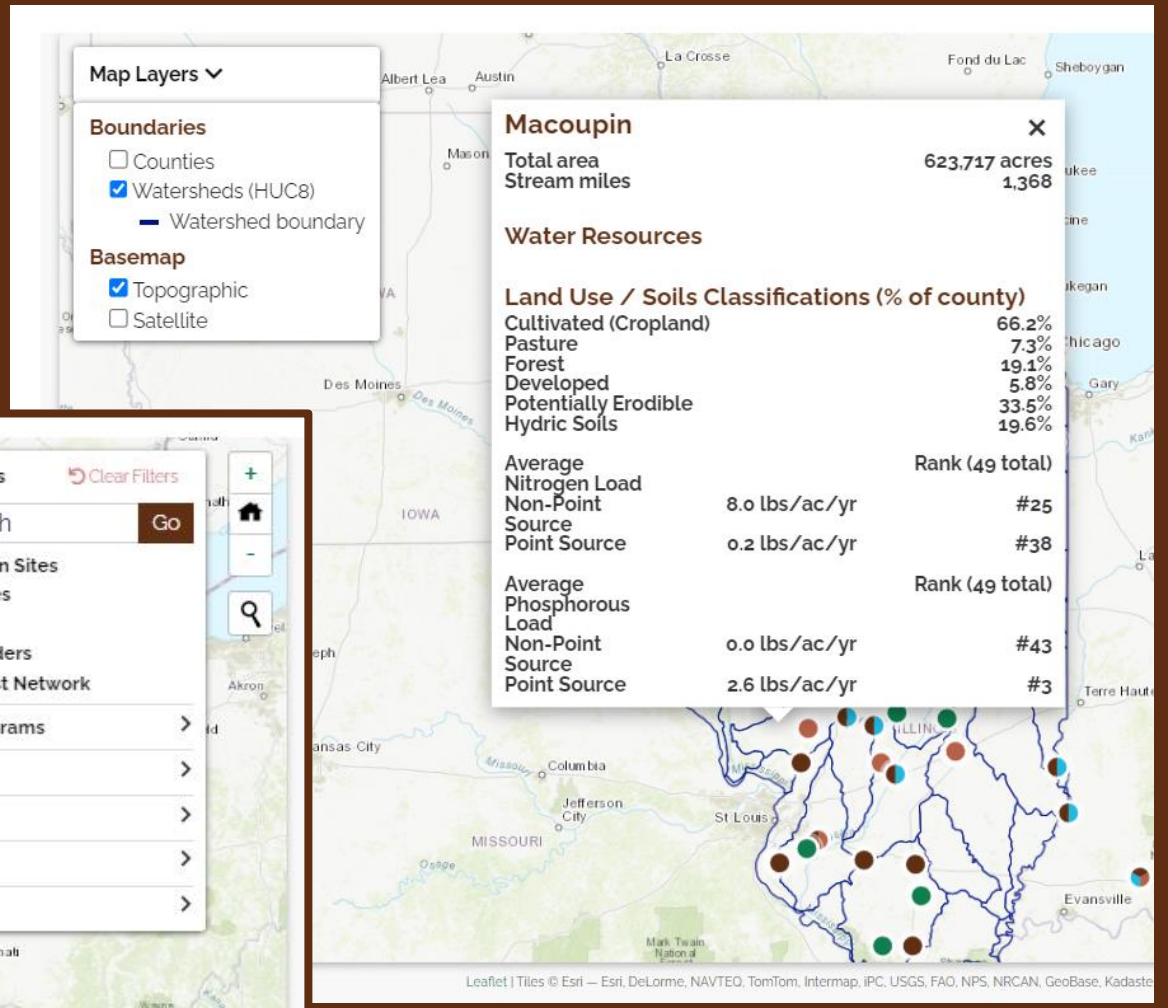
ISAP's Conservation Story Map is designed to communicate sustainable agriculture efforts in Illinois and facilitate connections to support healthy soil, clean water, and profitable farms. We encourage you to connect with individuals and businesses listed on the map and invite you to put your own pin on the map!

Click here to view navigation tips: +

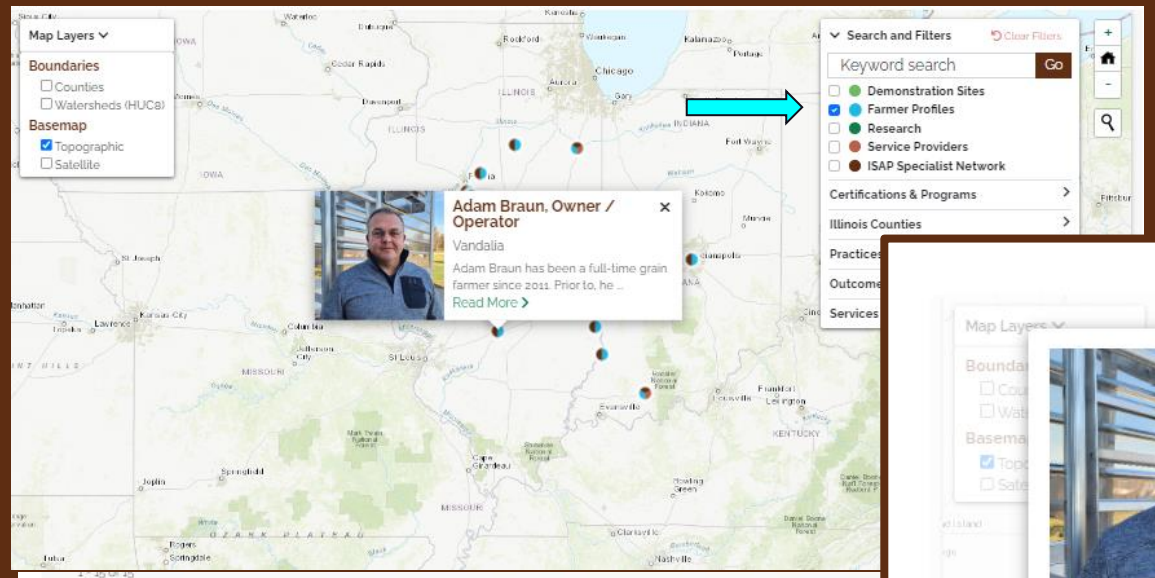


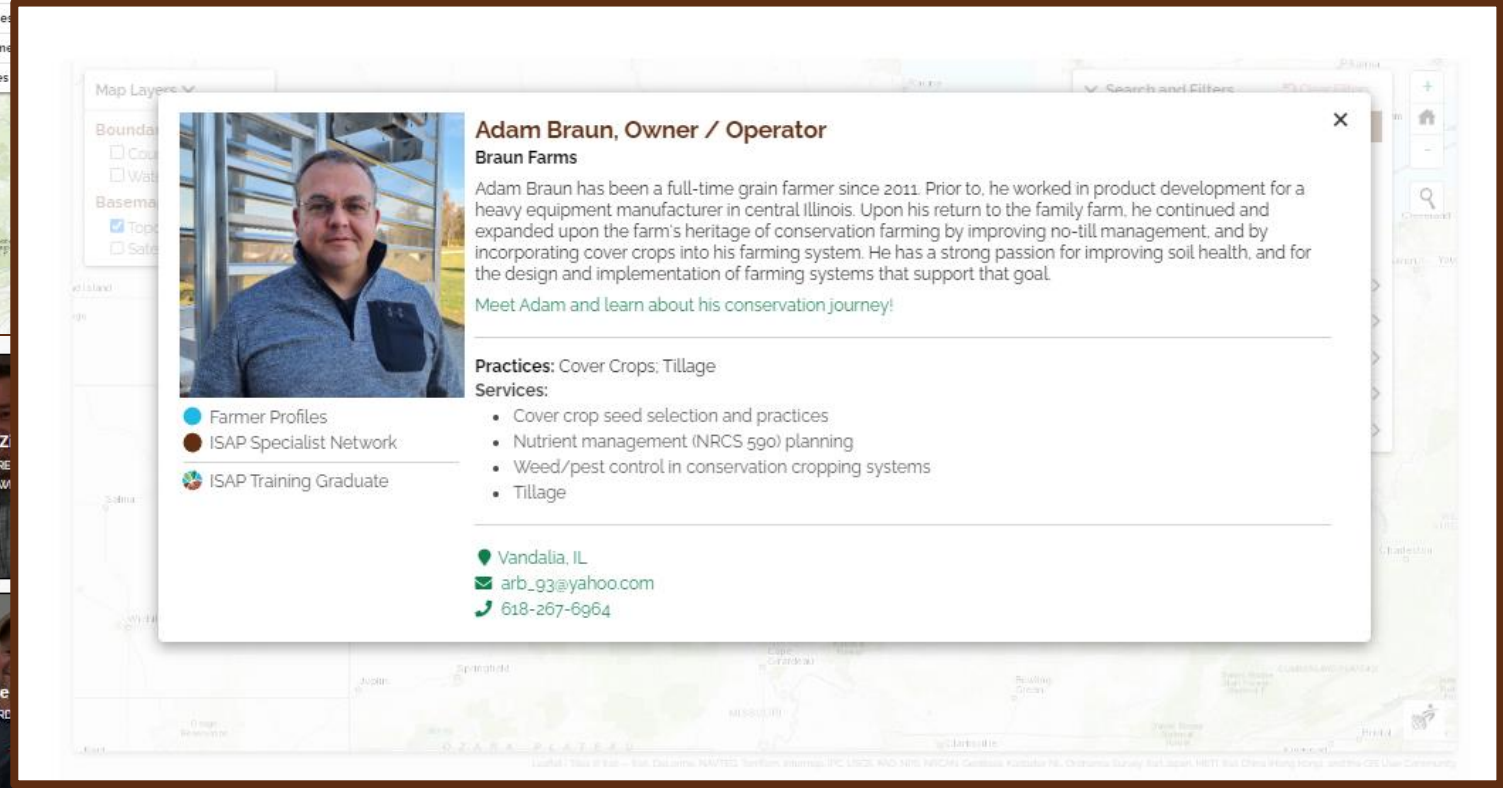
And Watershed Data

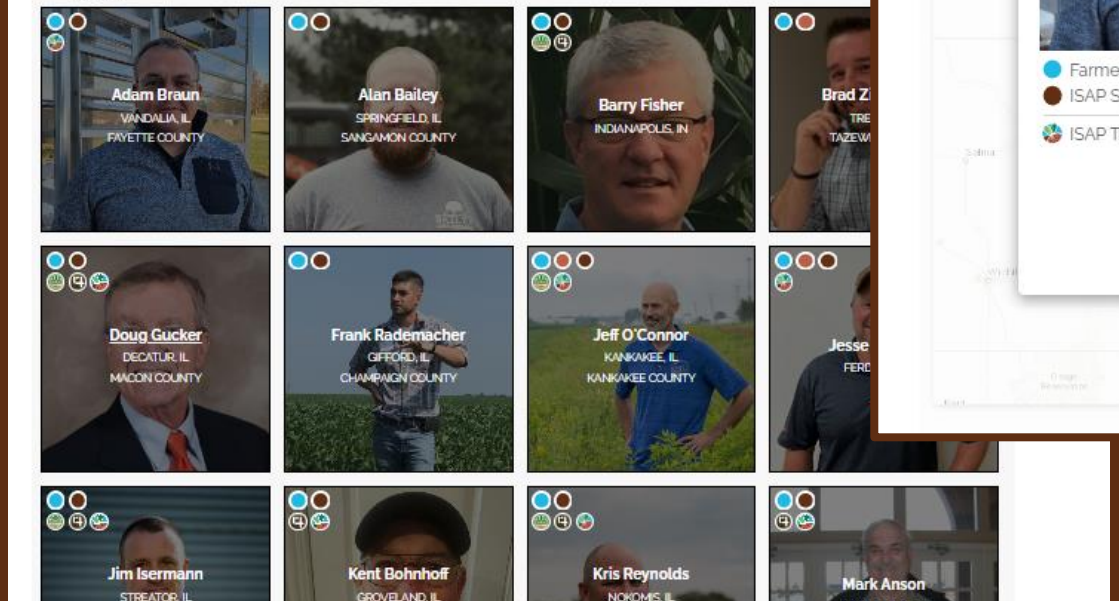




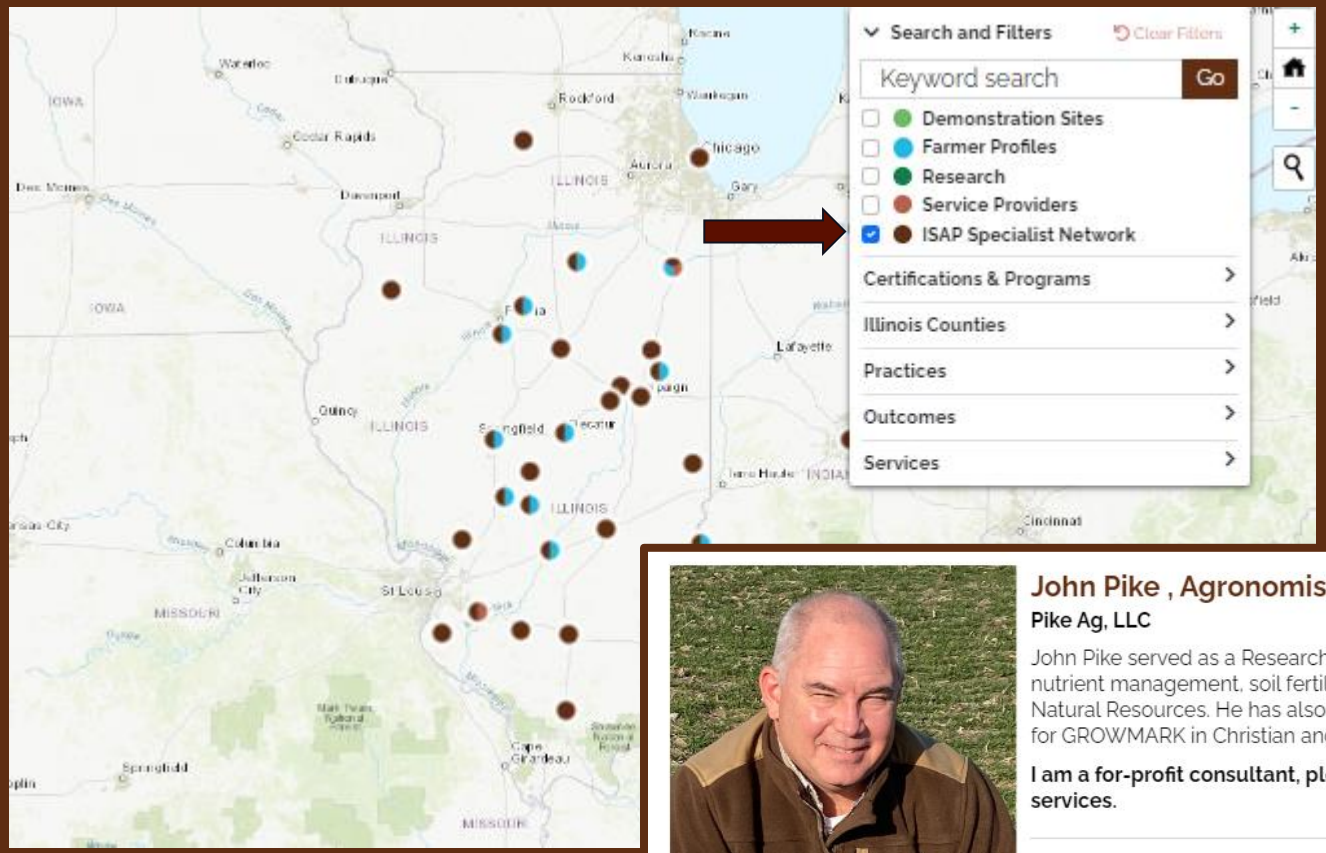
Featuring Leaders in Conservation - Farmers

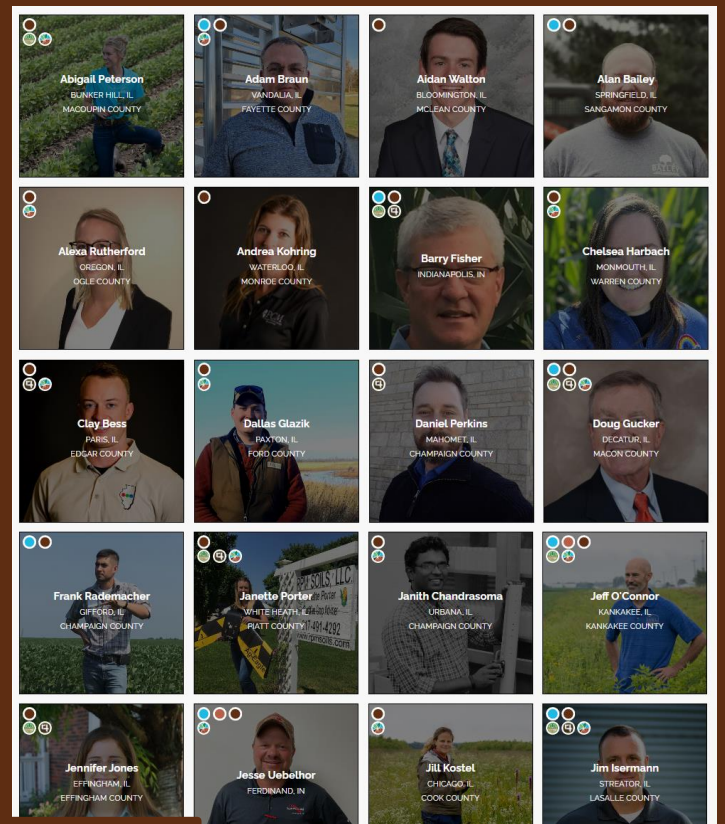


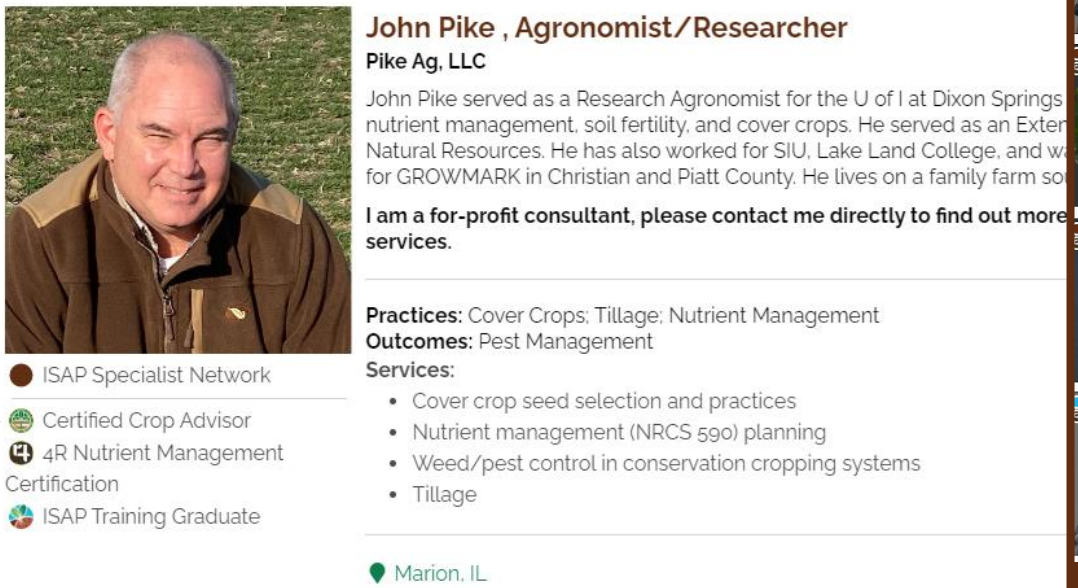




ISAP Specialist Network



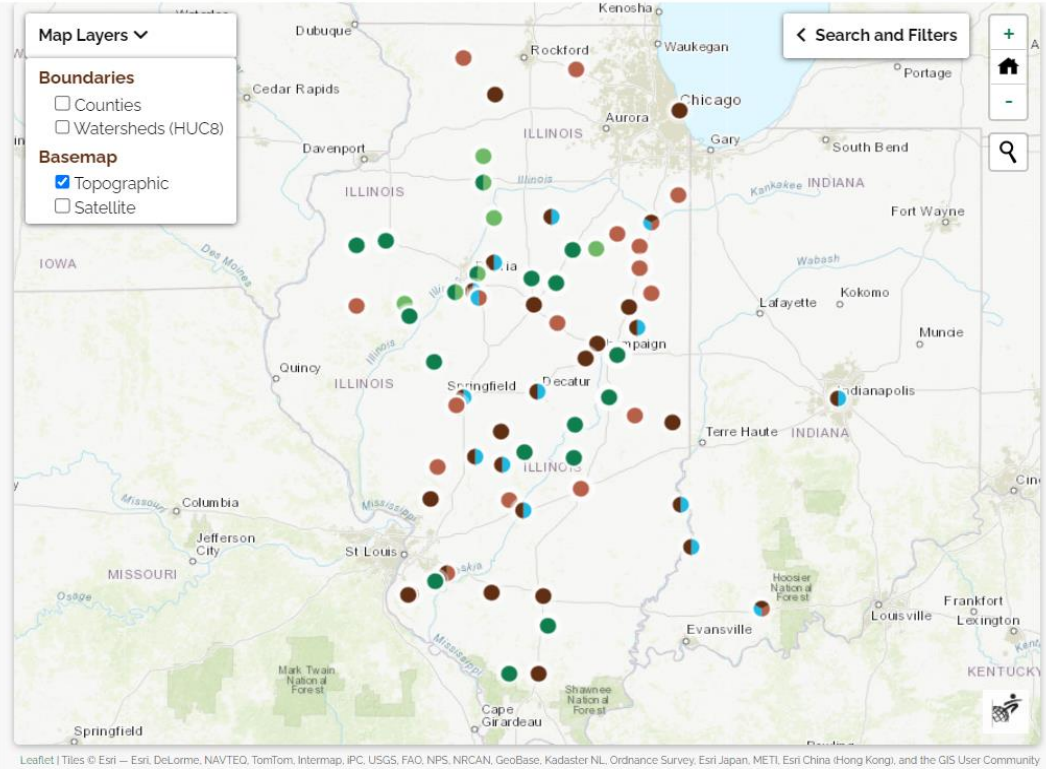




Add your pin to the map!

CONSERVATION STORY MAP

ISAP's Conservation Story Map is designed to communicate sustainable agriculture efforts in Illinois and facilitate connections to support healthy soil, clean water, and profitable farms. We encourage you to connect with individuals and businesses listed on the map and invite you to put your own pin on the map!



ILLINOIS SUSTAINABLE AG PARTNERSHIP

Put your pin on the map!

Complete this form to add your profile to the ISAP Conservation Story Map.

Type of Profile *

On which map layer(s) would you like your information listed?

- [ ] Demonstration Sites
- [ ] Farmer Profiles
- [ ] Research
- [ ] Service Providers
- [ ] ISAP Specialist Network

Contact Name *

Contact Name, REQUIRED

Contact Title

ilsustainableag.org/conservation-story-map

- Cover crop enthusiasts from Illinois and broader Midwest
- Monthly discussions on cover crop topics
- Recap blogs posted at ilsustainableag.org
- Google Group to stay connected

ICCON

Illinois Cover Crop On-Farm Network

Cover Crop Cocktails!

Summer Series
Second Wednesdays at 9am CT

June 14 | Mixes After Small Grains
Morgan Jennings, Practical Farmers of Iowa

July 12 | Mix Rate Calculations
Chase Brown, Brown Seed Sales

August 9 | Mixes to Improve Field Conditions
Bethany Bedeker, Center for Regenerative Agriculture

September 13 | Mixes for Wildlife Habitat and Biodiversity
Tyson Seirer, Star Seed Inc.

Register at bit.ly/covercropcocktails

ISAP's NEWSLETTER

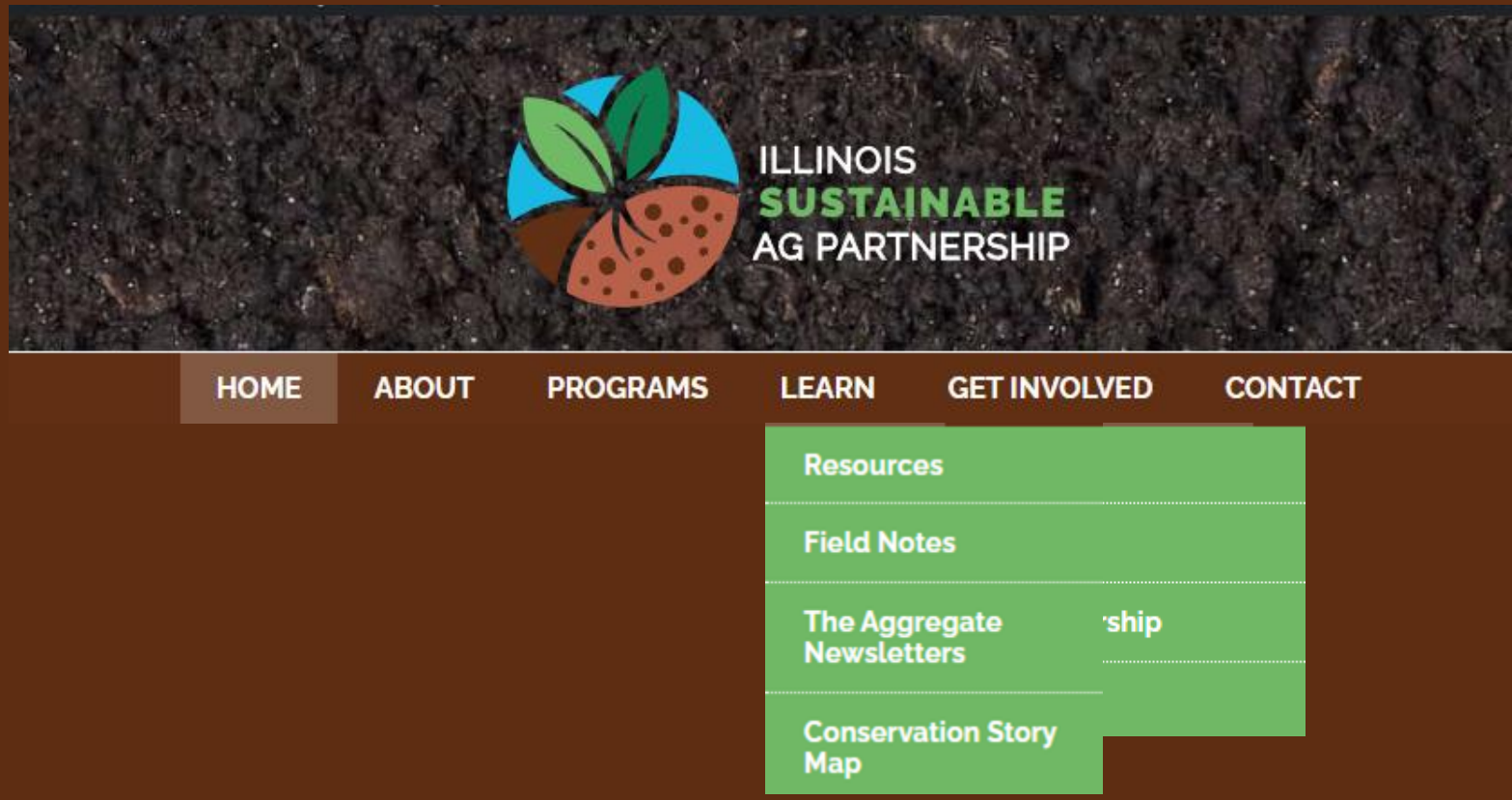
Share upcoming events, learning opportunities, and new resources to an audience of 2,000 agriculture and conservation professionals

Send your events to hello@ilsustainableag.org

Sign up to receive The Aggregate at www.ilsustainable.org

Visit ISAP's Website

- Learn more on our website and visit our resource library
- Find new events and job opportunities in sustainable ag

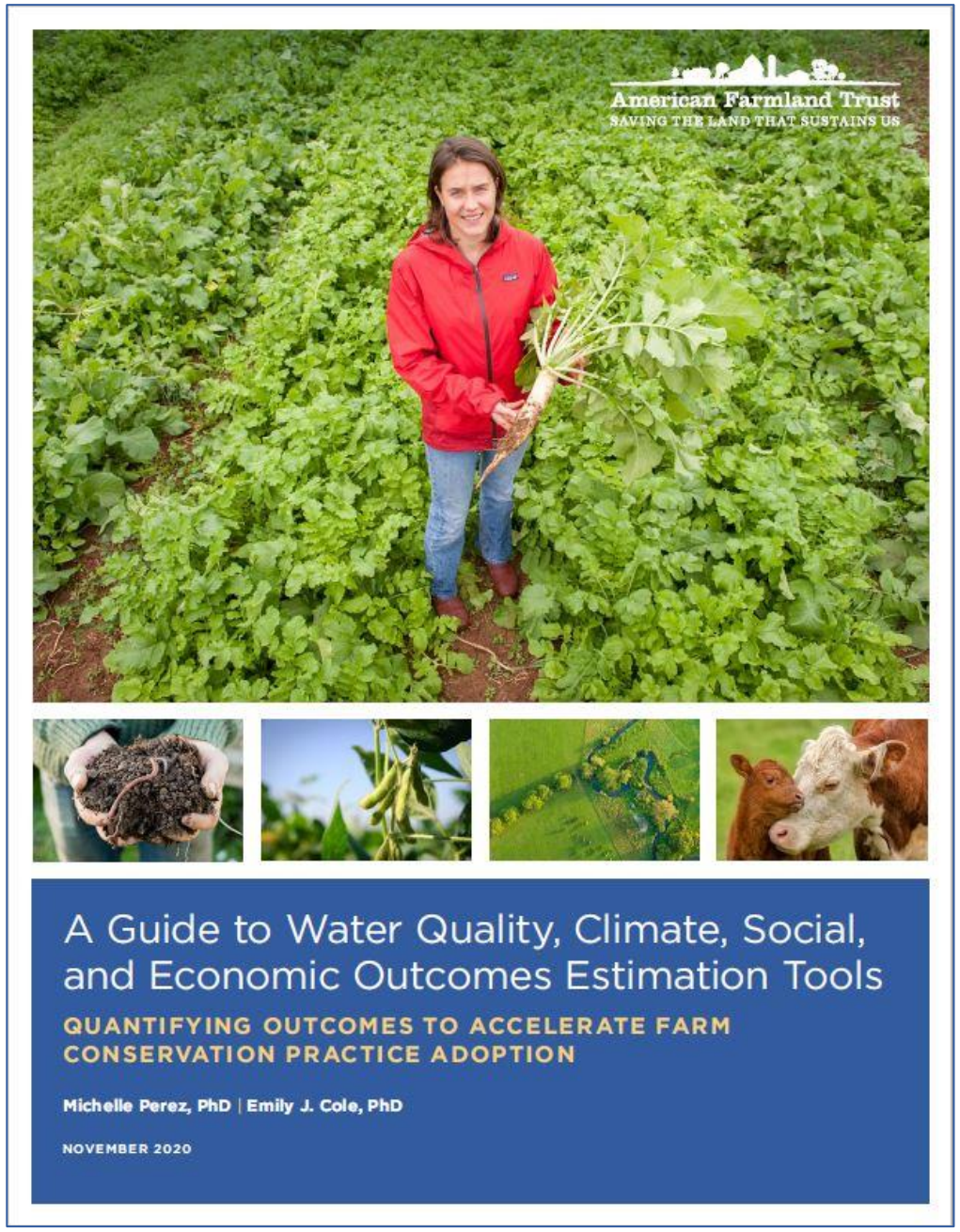


GET IN TOUCH

ILSUSTAINABLEAG.ORG

Hello@ilsustainableag.org

217-281-1822



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

Michelle Perez, PhD
Water Initiative Director

Aysha Tapp Ross
Water & Soil Health Scientist

June 29, 2023
UMBRA Multi-Benefit Preworkshop Webinar

Keyword search: "OET Guide AFT"

American Farmland Trust
SAVING THE LAND THAT SUSTAINS US

Agenda

Provide an overview of Guide

Compare & contrast tools & methods

Share tips to select a tool or a method that might work for you

WHAT ARE PROJECT-LEVEL OUTCOMES & WHY QUANTIFY THEM?

American Farmland Trust

Outcomes defined by “RCPP Expectations” (NRCS, 2020)

“Outcomes are the measurable environmental, economic and social impacts of RCPP project activities. Examples of outcomes are pounds of nitrogen runoff avoided, tons of carbon sequestered, cost savings to producers, number of neighboring producers adopting a practice, decision factors leading to producer adoption of a soil health management system, etc.”

Why quantify outcomes?

- Encouraged & then required for RCPP projects in the 2014 and 2018 Farm Bills
- Required for 319 projects through EPA's Nonpoint Source Pollution Control Program & the Clean Water Act

FIGURE 10. SOME USES OF OUTCOMES QUANTIFICATION TOOLS

1

Educate farmers about the outcomes they are already achieving from current practice use.

2

Offer more interesting education and outreach activities that feature such outcomes quantification results.

3

Improve farmer conservation decision-making and help farmers "get to yes" by running "what if" conservation scenarios that generate estimated outcomes.

4

Evaluate results of farmer participation in government-funded conservation project.

5

Evaluate farmer credits for participation in water quality or climate markets.

6

Evaluate results of farmer participation in corporate supply chain sustainability programs.

Several terrific reasons to quantify outcomes

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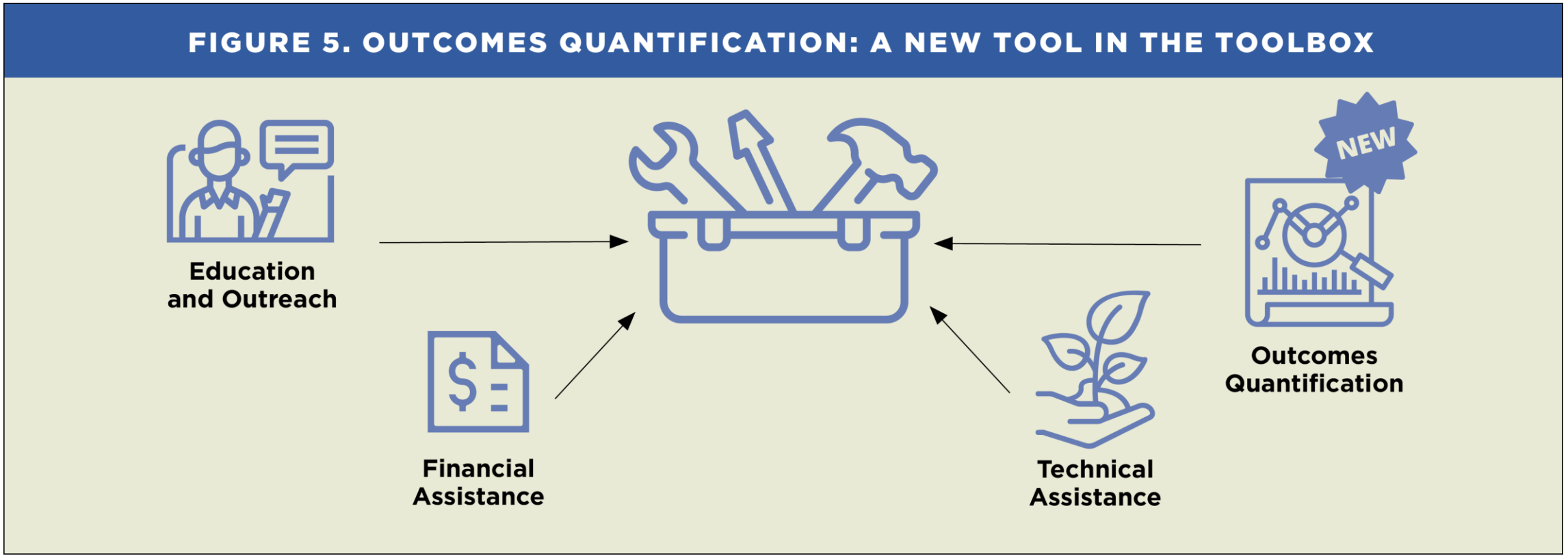
SAVING THE LAND THAT SUSTAINS US

Goal of the Guide: Enable conservationists to add outcomes quantification to their conservation toolbox



American Farmland Trust

OET Guide: Out of 51 options, features 14 Tools + 2 Methods

FIGURE 8. CRITERIA FOR OUTCOMES QUANTIFICATION TOOLS

1

Provide quantitative estimates of water quality, climate, social, or economic outcomes associated with agricultural conservation practice adoption.

2

Available to the public, either free or for a fee.

3

Meant for direct use by conservationists or farmers.

4

Do not require users to have a modeling background.

5

Available to users in more than one state.

TABLE 1. FEATURED OUTCOMES QUANTIFICATION TOOLS AND METHODS	
Seven Water Quality Tools and One Method	
EPA's PLET - Pollutant Load Estimation Tool	MN BWSR's PTMApp-Web—Prioritize, Target, & Measure Application Tool (MN & ND)
Officially discontinued	EPA & CBP CAST—Chesapeake Assessment Scenario Tool (Chesapeake Bay Watershed)
USDA's NTT—Nutrient Tracking Tool	The Common's FieldDoc (Chesapeake Bay & Delaware River Watersheds)
S	S
lima	
U	U
Field to Market's Fieldprint Platform	
One Social Tool and One Method	
SIDMA—Social Indicators Data Management and Analysis Tool	SIPES—"Social Indicator Planning and Evaluation System (SIPES) for Nonpoint Source Management: A Handbook for Watershed Projects" Method
Three Economic Tools	
NRCS's Cover Crops Economics Tool	LSP's Cropping Systems Calculator (MN & IL)
AFT's R-SHEC—Retrospective Soil Health Economic Calculator	

Tool: a technical device intended to make the task of estimating outcomes easier

Method: a systematic procedure for accomplishing the task of estimating outcomes

TABLE 4. WATER QUALITY OUTCOMES QUANTIFICATION TOOLS

	Tool	Developer	Format	Scale Options for Analysis	Quantified Outcomes (Degree of Specificity)
NATIONALLY AVAILABLE	**PLET**	EPA	Web	**Primary**: Project & Watershed **Secondary:** Field	Sediment loss, N, P, & BOD (Generalized estimates)
	ntinued				
	Nutrient				
	Model M				(Generalized estim s)
REGIONALLY SPECIFIC	**PTMApp** (MN & ND)	MN Bo & Soil			
	CAST (Chesapeake Bay)	Devere Consu			
	FieldDoc (Chesapeake Bay & Delaware River Basins)	The C			

Live links

FIELD-SPECIFIC
Farmer production and management data inputs; outcomes only applicable to field of interest

SITE-SPECIFIC
Location-based environmental data inputs (e.g. soil type); outcomes are only applicable to that location

GENERALIZED
Watershed-scale or county-scale data inputs; outcomes are broadly applicable within watershed or county of interest

FIELD-SCALE
Working with individual farmers; running "what if" planning scenarios to estimate how their on-farm water quality or GHG losses might be reduced by adopting conservation practices

PROJECT-SCALE
Tracking multiple farmers adopting conservation practices, working towards project-scale environmental goals that may occur across one or more counties or watersheds

WATERSHED-SCALE
Working towards goals established for a specific waterbody, within a watershed, or a group of watersheds

Acronyms: BOD = biological oxygen demand, N = nitrogen, P = phosphorous, TN = total nitrogen, TP = total phosphorus, TSS = total suspended solids

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TABLE 5. GREENHOUSE GAS OUTCOMES QUANTIFICATION TOOLS

Tool	Developer	Format	Scale Options for Analysis	Quantified Outcomes (Degree of Specificity)
COMET-Farm	NRCS & Colorado State University	Web	**Primary:** Field **Secondary:** Project	Soil organic carbon, biomass carbon, CO, CO_2, N_2O, and CH_4, all presented in metric tons of CO_2 equivalents per field (or parcel) annually (Field-specific estimates)
COMET-Planner	NRCS & Colorado State University	Web	**Primary:** County & State-level	CO_2, N_2O, CH_4, and total CO_2 reduction estimates are all presented in metric tons of CO_2 equivalents annually (Generalized estimates)
Fieldprint Platform	Field to Market	Web	**Primary:** Field **Secondary:** Project	CO_2, N_2O, and CH_4 emissions presented in lbs. of CO_2 equivalent per acre annually (Field-specific estimates)

Acronyms: CO = carbon monoxide, CO_2 = carbon dioxide, N_2O = nitrous oxide, and CH_4 = methane

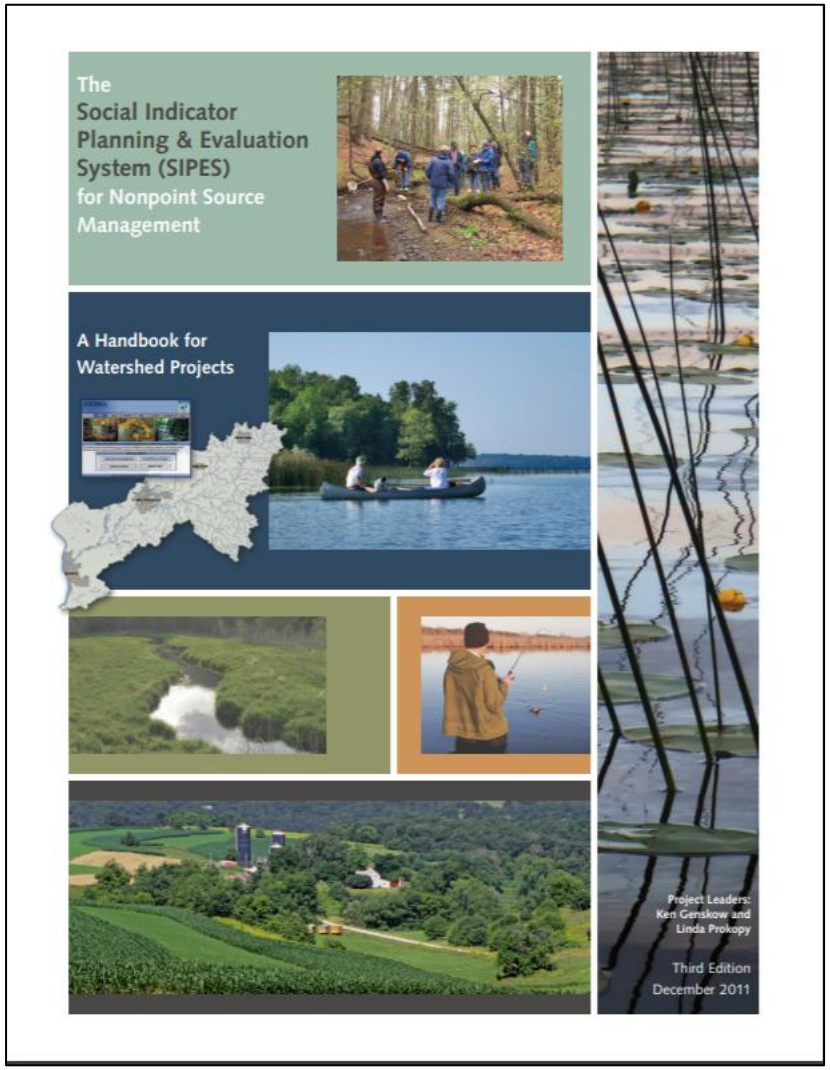
TABLE 6. ECONOMIC OUTCOMES QUANTIFICATION TOOLS

Tool	Developer	Format	Conservation Practices	Quantified Outcomes
Cover Crops Economics Tool	NRCS	Excel	Cover crops	Total costs, total benefits, and net benefit for short-term and long-term analysis ($/ac) of cover crop use
Retrospective—Soil Health Economic Assessment Calculator	American Farmland Trust	Excel	No-till, reduced till, cover crops, conservation cover, nutrient management, mulching, and compost application	Partial budget analysis table showing benefits, costs, impact on net income, and return on investment of already adopted soil health practices
Cropping Systems Calculator	Land Stewardship Program	Excel	Conservation crop rotation, cover crops, and grazing options	Average yearly costs and returns on a per acre and total basis to compare the original crop rotation to the alternative crop rotation

Social Tool & Method

Social Indicators Data Management & Analysis (SIDMA) Tool

- Developed by Purdue & Michigan State Universities + EPA Region 5
- Aids in water quality project managers in survey generation & results coding & analysis
- Tool is based on the SIPES Handbook
- Alternatives to SIDMA: MS Forms & Google Forms though no guardrails



Definition of social outcomes from the 2011 SIPES Handbook:

Social outcomes are social changes needed to bring about & sustain the environmental conditions … trying to achieve in your project area.

Examples from SIPES:

1. Increased awareness
2. Changed attitudes
3. Reduced constraints
4. Increased capacity
5. Increased adoption of practices

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Tool Column with Live links

Getting In

Getting Started

Relative number of steps to estimate outcomes for cover crop adoption

TABLE 3. GETTING INTO THE TOOL, GETTING STARTED, AND GETTING TO THE FINISH LINE

	TOOL	GETTING IN (Gaining Access)	GETTING STARTED (Setting Up)	GETTING TO THE FINISH LINE (Steps Involved)
WATER QUALITY	**STEPL** (Pages 30–32)	Download the Excel tool	Collect non-ag & ag sources of pollutant loads & land uses from the tool's Data Input Server (or identify your own data inputs)	3
	Region 5 (Pages 32–34)	Download the Excel tool	Select state & county from dropdown boxes	2
	NTT (Pages 34–37)	Create a free account	Secure interview with farmer for field-specific production & conservation practice data to build "before" & "after" conservation scenarios	5
	ModelMW (Pages 38–39)	Create a free account	Zoom into the map & select watershed or outline the field	2
	PTMApp-Web (MN & ND) (Pages 40–42)	Create a free account, then wait for account approval		3
	(Pages 42–45)	Create a free account	Create scenario: Enter scenario name, geographic scale, location, BMP & cost profile from drop down menus	2
	FieldDoc (Chesapeake Bay & Delaware River Basins) (Pages 45–47)	Create a free account, then wait for account approval	Select your funder (If not a grantee, select "NFWF" or "CACBTF" & turn on privacy settings)	3
	S.T.A.R. Method (Page 47)	Download S.T.A.R. report & read the methodology	Collect baseline water quality data for your watershed(s) or county(ies) & practice reduction efficiency values	4
USE GAS	**COMET-Farm** (Pages 49–51)	Create a free account	Secure interview with farmer for the past 20 years of field-specific production & conservation practice data to build "before" and "after" conservation scenarios	5
			Select state & county from dropdown boxes	1
GRE	**Fieldprint Platform** (Page 53–56)	Create a free account	Secure interview with farmer for field-specific production & conservation practice data for the current crop year	4
SOCIAL	**SIPES Method** (Page 57–58)	Download and read the report	Proceed through the tool to develop and mail a survey for project farmers by accepting pre-developed survey questions, modifying them, or adding questions	1
	SIDMA (Page 58–60)	Create a free account, then wait for account approval		3
ONOMIC	**Cover Crops Economics Tool** (Page 63–64)	Download the Excel tool	Secure interview with farmer for field- or rotation-specific production & conservation practice data to build "before" & "after" conservation scenarios	4
	R-SHEC (Page 65–67)	Complete form to immediately gain download access		5
	(Page 68–70)	download access		4

LEGEND: A conceptual Likert scale representing the relative number of steps involved in achieving an estimate of outcomes associated with cover crop adoption

1 2 3 4 5

Very few steps — Very many steps

Do project staff and farmers have the time to gather and process data?

Do project staff have access to additional necessary data?

How experienced are project staff at using models and tools and in interpreting input and results data?

TABLE 3. GETTING INTO THE TOOL, GETTING STARTED, AND GETTING TO THE FINISH LINE

	TOOL	GETTING IN (Gaining Access)	GETTING STARTED (Setting Up)	GETTING TO THE FINISH LINE (Steps Involved)
WATER QUALITY	**STEPL** (Pages 30–32)	Download the Excel tool	Collect non-ag & ag sources of pollutant loads & land uses from the tool's Data Input Server (or identify your own data inputs)	3
	Region 5 (Pages 32–34)	Download the Excel tool	Select state & county from dropdown boxes	2
	NTT (Pages 34–37)	Create a free account	Secure interview with farmer for field-specific production & conservation practice data to build "before" & "after" conservation scenarios	5
	ModelMW (Pages 38–39)	Create a free account	Zoom into the map & select watershed or outline the field	2
	PTMApp-Web (MN & ND) (Pages 40–42)	Create a free account, then wait for account approval		3
	CAST (Chesapeake Bay) (Pages 42–45)	Create a free account	Create scenario: Enter scenario name, geographic scale, location, BMP & cost profile from drop down menus	2
	FieldDoc (Chesapeake Bay & Delaware River Basins) (Pages 45–47)	Create a free account, then wait for account approval	Select your funder (If not a grantee, select "NFWF" or "CACBTF" & turn on privacy settings)	3
	S.T.A.R. Method (Page 47)	Download S.T.A.R. report & read the methodology	Collect baseline water quality data for your watershed(s) or county(ies) & practice reduction efficiency values	4
GREENHOUSE GAS	**COMET-Farm** (Pages 49–51)	Create a free account	Secure interview with farmer for the past 20 years of field-specific production & conservation practice data to build "before" and "after" conservation scenarios	5
	COMET-Planner (Pages 51–52)	Immediate, online start	Select state & county from dropdown boxes	1
	Fieldprint Platform (Page 53–56)	Create a free account	Secure interview with farmer for field-specific production & conservation practice data for the current crop year	4
SOCIAL	**SIPES Method** (Page 57–58)	Download and read the report	Proceed through the tool to develop and mail a survey for project farmers by accepting pre-developed survey questions, modifying them, or adding questions	1
	SIDMA (Page 58–60)	Create a free account, then wait for account approval		3
ECONOMIC	**Cover Crops Economics Tool** (Page 63–64)	Download the Excel tool		4
	R-SHEC (Page 65–67)	Complete form to immediately gain download access	Secure interview with farmer for field- or rotation-specific production & conservation practice data to build "before" & "after" conservation scenarios	5
	CSC (MN & IL) (Page 68–70)	Complete form to immediately gain download access		4

LEGEND: A conceptual Likert scale representing the relative number of steps involved in achieving an estimate of outcomes associated with cover crop adoption

1 2 3 4 5

Very few steps — Very many steps

14 Featured Tool Write-ups

is using the three practices on. COMET-Farm tool estimates that Niemeyer's use of the three soil health practices have resulted in a 494% reduction in total GHG emissions corresponding to taking 17 cars off the road.

AFT conducted a summary analysis of all the featured farmers and found total greenhouse gas emission reductions for five of the six crop farms averaged 217% and was 28% for the two almond growers, which corresponds to taking between ¾ of a car to 17 cars off the road each year. AFT decided to publish the percent change figures rather than the baseline, reduction, or change in emissions in tonnes of CO_2-equivalent figures given the sensitivity surrounding individual farmer field estimates of GHG emissions.

F. SUPPORTING INFORMATION

Video tutorials are available at comet-farm.com/HelpPage and range from introductory presentations to in-depth instructions for assessing outcomes for differing types of agriculture. The most recent video was posted in 2020. There are many pdf tutorials, demonstration projects, an extensive FAQ page, and online support desk at cometfarm.freshdesk.com/support/home. Users can email questions or feedback to: appnrel@colostate.edu or directly through the helpdesk widget in the bottom right corner of the COMET-Farm page.

COMET-Farm was updated to version 2.43 in September, 2020, to include an updated soil N_2O method, improved model throughput and faster tool response, addition of the state of Hawaii, more available options for fertilizers and organic matter additions, and an improved animal agriculture module allowing modeling of multiple livestock herds over multiple years on a flexible baseline.

9. COMET-Planner

A. ABOUT THE TOOL

COMET-Planner is a quick and easy online planning tool that estimates GHG changes, at the county and state level, as associated with NRCS conservation practices applied to annual and woody perennial cropland and grazing lands. Launched in 2015, this tool is not intended for field-specific simulation (like COMET-Farm) but for broader planning purposes during project development to produce generalized estimates of project outcomes. It was developed by Colorado State University and NRCS with additional support from NGOs, private donors, and state agencies. This is a free tool available for use nationally. Further, the full dataset underlying the tool can now be downloaded as an Excel spreadsheet from the website.

B. SITE-SPECIFIC INPUTS AND BMP ANALYSIS OPTIONS

There are only four data entries made by the user in COMET-Planner. Users choose the state, county, and area (in acres) of their planned project and then choose a single practice or a combination of practices (also broken down by acres) to simulate implementation and estimate GHG emission reductions. The included conservation practices are those that have been identified to mitigate GHG emissions. In total, there are 35 NRCS conservation practices that fall under the five broader categories of:

- Cropland management;
- Grazing lands;
- Cropland to herbaceous cover;
- Woody plantings; and
- Restoration of disturbed lands.

In the most recent update of COMET-Planner, developers improved the practice combination flexibility, allowing users to choose from a variety of common combinations.

The site-specific modeling used to generate regional average estimates of GHG changes in COMET-Planner used several datasets to capture soil properties, weather, cropping systems, and typical agricultural management. Details on the specific datasets and how they were used can be found in the COMET-Planner Report (planner-prod-dot-comet-201514.appspot.com/static/media/COMET-Planner_Report_Final.3de20776.pdf), linked from the Help page on the tool website. The only data entered by users are the state, county, and area to which they would apply the conservation practice(s).

C. WHICH OUTCOMES ARE QUANTIFIED?

COMET-Planner presents GHG emissions as compared to the baseline scenario using an estimated range (minimum and maximum) for GHG changes and relies on the COMET-Farm modeling platform (i.e., the DayCent model and a suite of empirical models). The GHG outcomes estimated include CO_2, N_2O, CH_4, and total CO_2. Equivalent reduction estimates are all presented in metric tons of CO_2 equivalents annually. Negative estimates indicate that the "what if" scenario results in greater emission of CO_2 while positive estimates indicate a reduction of emissions. It is noted on the COMET-Planner site and in the accompanying report that "carbon dioxide reductions reported should be viewed as average values over a 20-year duration."

Results are presented in a simple tabular form, and the more detailed calculations can be displayed by choosing "Click to Show Detailed Emission Reductions." This provides greater detail in regard to the source or sink of C and N_2O, by providing the emission reduction coefficients of the chosen practice (or practices) on soil carbon, biomass carbon, fossil CO_2, biomass burning CO_2, biomass burning CH_4, liming, and soil N_2O, in tonnes CO_2 equivalent per acre per year. The maximum and minimum total emissions reduction estimates are also provided. Standard errors, representing modeled variability, are included in the downloadable Excel spreadsheet of results.

D. TOOL STRENGTHS AND LIMITATIONS

One of COMET-Planner's greatest strengths is also its limitation: with just a few clicks, the tool provides a very easy user experience to produce generalized GHG outcome estimates of conservation practices. However, for projects or farmers who want a site-specific estimate of GHG emissions and "what if" scenarios that capture their soils, management, and cropping history, the COMET-Farm will satisfy their need. Despite the easy user experience, CSU staff provide examples during their training videos of outcomes estimates generated by COMET-Farm and by COMET-Planner for the same baseline and "what if" scenarios that reveal similar results. See here for the training video: cometfarm.freshdesk.com/support/home.

A recent update to COMET-Planner improved the underlying models' spatial resolution of the CO_2 equivalents estimate. COMET-Planner is suitable for project planning and could also be used to provide project managers with quick and easy, generalized estimates of their project's GHG outcomes. Results and COMET-Planner datasets are both downloadable.

E. WHO'S USING THIS TOOL?

There is no information about projects that have used COMET-Planner on the tool's website, although the developers report that COMET-Planner is used within NRCS, state agencies, and resource conservation districts for conservation planning purposes to dialogue with farmers about the benefits of certain practices and to run "what if" scenarios. The developers also report that NGOs are using COMET-Planner to do broadscale analyses, and states are using it to design and administer soil health programs. For example, COMET-Planner was adapted to support the California Healthy Soils Program, providing estimates of GHG reductions of practices supported by program payments. All applicants to the program must complete an analysis in COMET-Planner and include their results in their application.

For example, in the 2020 California Healthy Soils Program solicitation by the California Department of Food and Agriculture, 578 applicants used the COMET-Planner Healthy Soils tool.

F. SUPPORTING INFORMATION

COMET-Planner was last updated in August 2020. There is a six-minute introductory video at the top of the home page that briefly gives an overview of the tool and walks users through its four steps. A 141-page companion report is accessible via the "help" link. The original version of the tool has been retired, but users may still access the original report, which contains all coefficients (based on meta-analyses and simple empirical models), from the Help page. Users with questions or feedback are encouraged to contact Amy.Swan@colostate.edu.

a. About the Tool

b. Site-specific Inputs & BMP Analysis Options

c. Which Outcomes Are Quantified?

d. Tool Strengths and Limitations

e. Who's Using This Tool?

f. Supporting Information

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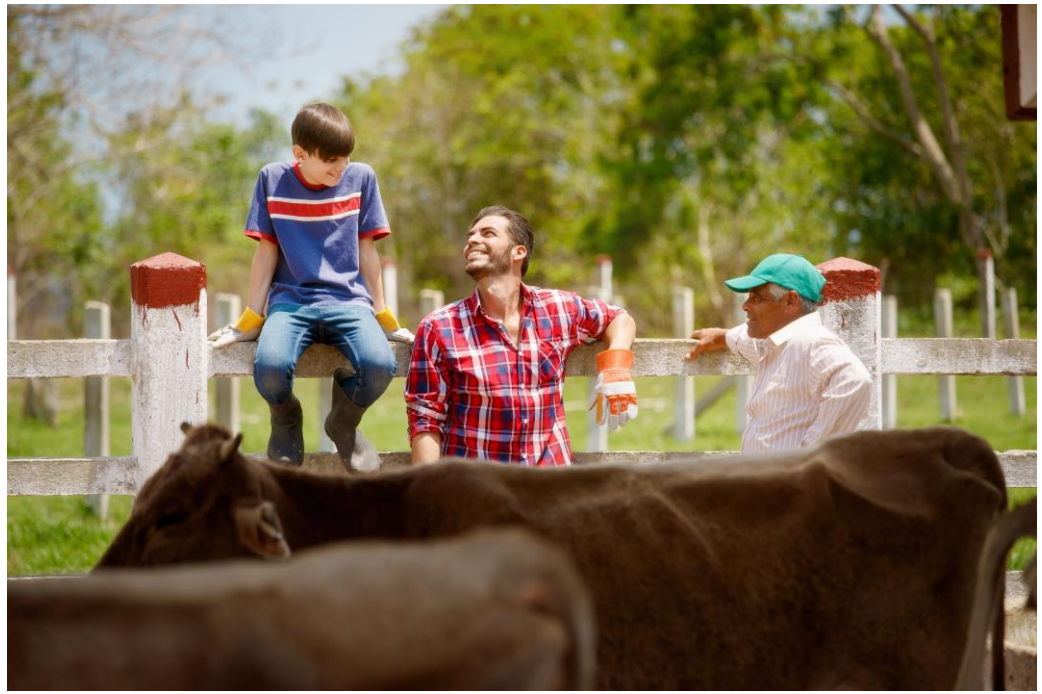
Resource Overview: OET Tools Training Webinar Series, Copies of the Report, & Coaching Sessions



- **OET Tools Training Webinar Series**
  - May 2023- June 2024
  - 1st Wed of the month from 12:00-1:30 EST
  - Each month a new tool will be demo'd
  - **Registration** link in the chat or use keywords "outcomes estimation webinar series"

- **Access to the OET Guide**
  - **Download** it using keywords "OET Guide AFT"
  - **Order a free print copy** using keywords "AFT outcomes tools"

- **Schedule a free "coaching" session with us**
  - Email atappross@farmland.org,
  - RE: Coaching Request

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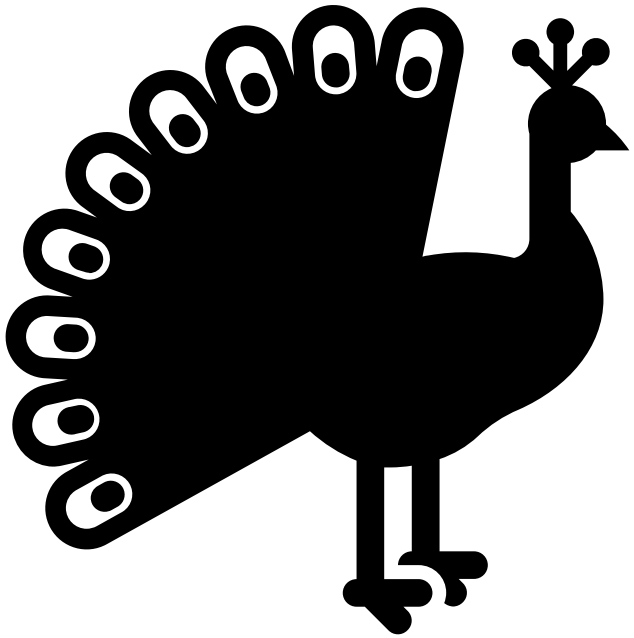
BONUS – IF HAVE TIME

American Farmland Trust

Project by County Outcomes Calculator

(Only Illinois, cover crops, & no-till at the moment)

American Farmland Trust



Let Michelle know if you want this tool developed for your state & for additional practices:

mperez@farmland.org

American Farmland Trust

CUT SLIDES

American Farmland Trust

Excerpt of economic outcomes definition from 2020 NRCS “RCPP Expectations”

“Economic indicators can quantify the financial impacts of conservation practices on a farm, ranch or forestland.” (Three examples include:)

- **Conservation cost effectiveness**
- **Economic/financial benefits**
- **Valuation of ecosystem benefits**

Envisioning a Self-Strengthening Cycle:

Outcomes quantification will lead to more conservation adoption, which will lead to more outcomes quantification, which will lead to more conservation adoption

American Farmland Trust

“Back-of-the-Envelope” Water Quality Estimation: Try the S.T.A.R. Method

FIGURE 12. THE S.T.A.R. METHOD

In addition to the quantification tools we have featured, there is a back-of-the-envelope method developed by AFT as an option for a coarse yet reasonable approach to quantifying project-scale water quality and climate outcomes, which may be modifiable for application to projects. Originally developed to quantify our Illinois Upper Macoupin Creek RCPP project outcomes, our Midwest Science Director Dr. Emily Bruner further developed this methodology to quantify the outcomes associated with practice adoption tracked by the statewide Illinois Saving Tomorrow’s Agriculture Resources (S.T.A.R.) Initiative.

This method can easily be applied at the project scale (defined by either county or watershed boundaries) to estimate outcomes and “provide an estimate of practice level performance” (S.T.A.R., 2020). The S.T.A.R method uses total acres enrolled in the program; GHG reductions using COMET-Planner; BMP efficiencies from the Illinois Nutrient Loss Reduction Strategy; Illinois HUC8 nonpoint source (NPS) nutrient loading data; HUC8 and county boundaries using geospatial data; 2017 Census of Agriculture information; and the average annual sediment load per county to calculate nutrient and sediment load reductions.

While this method may be less sophisticated than site-specific, online dynamic modeling tools, it does incorporate recent regionally specific and watershed and county-level NPS data. Thus, it may provide a realistic picture of what is going on across the landscape. It should be pointed out that before project leaders can use this method, they must first ascertain whether the county or watershed level baseline nutrient and sediment loss information and reduction efficiencies for conservation practices are available.

The S.T.A.R. Method is published in the report listed below (on pages 13–15):

S.T.A.R. (2020). *S.T.A.R. Annual Report. Crop Year 2019. Improving Conservation One Field At A Time.* Saving Tomorrow’s Agriculture Resources. img1.wsimg.com/blobby/go/45c3f789-47fb-40df-9bb7-3dc4d7bf6c2f/downloads/Star%20report%20FINAL%202020.pdf?ver=1597671964705

	TOOL	GETTING IN (Gaining Access)	GETTING STARTED (Setting Up)	GETTING TO THE FINISH LINE (Steps Involved)
WATER QUALITY	**STEPL** (Pages 30–32)	Download the Excel tool	Collect non-ag & ag sources of pollutant loads & land uses from the tool's Data Input Server (or identify your own data inputs)	1 2 **3** 4 5
	Region 5 (Pages 32–34)	Download the Excel tool	Select state & county from dropdown boxe	1 **2** 3 4 5
	NTT (Pages 34–37)	Create a free account	Secure interview with farmer for field-specific production & conservation practice data to build "before" & "after" conservation scenarios	1 2 3 4 **5**
	ModelMW (Pages 38–39)	Create a free account	Zoom into the map & select watershed or outline the field	1 **2** 3 4 5
	PTMApp-Web (MN & ND) (Pages 40–42)	Create a free account, then wait for account approval		1 2 **3** 4 5
	CAST (Chesapeake Bay) (Pages 42–45)	Create a free account	Create scenario: Enter scenario name, geographic scale, location, BMP & cost profile from drop down menus	1 **2** 3 4 5
	FieldDoc (Chesapeake Bay & Delaware River Basins) (Pages 45–47)	Create a free account, then wait for account approval	Select your funder (If not a grantee, select "NFWF" or "CACBTF" & turn on privacy settings)	1 2 **3** 4 5

American Farmland Trust

Tools to Cultivate Watershed Leadership

Jenny Seifert

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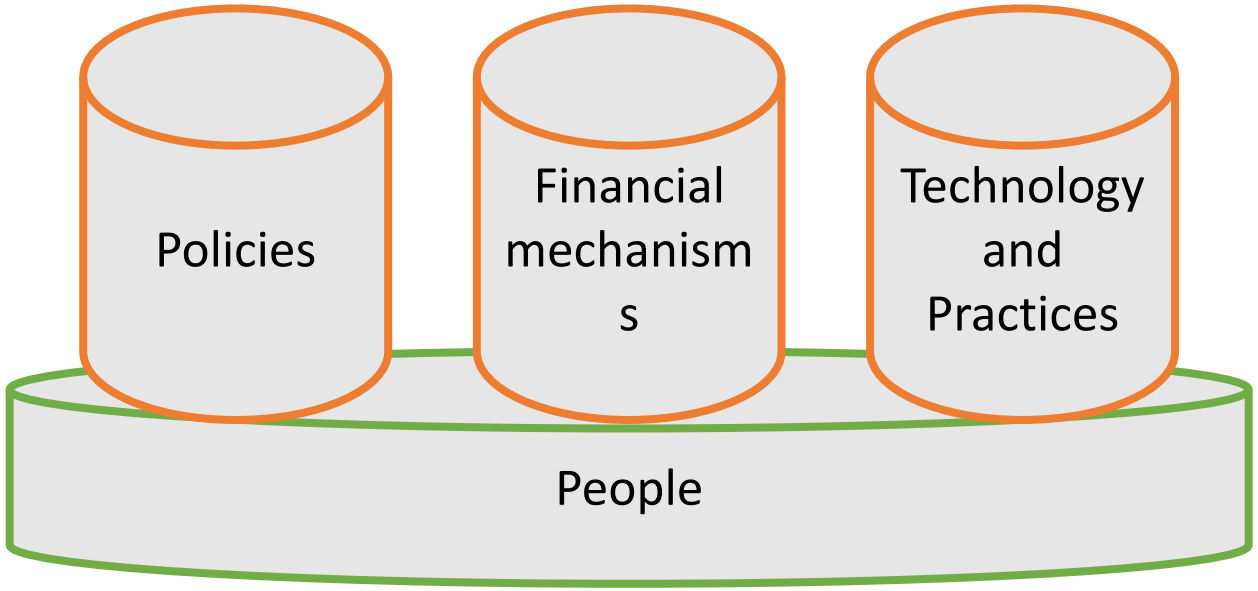
Photo courtesy Fishers and Farmers Partnership

Pillars for Moving the Needle on Clean Water



NRCS/SWCS photo by Lynn Betts

"In-person work with farmers and landowners, whether in the office or in the field, is most effective [for relationship and trust building]."

- #1 key finding from the 2021 Conservation Practitioner Poll by SWCS & Iowa State University

We need to invest more in people to achieve clean water goals.

Human Capital for Watershed Management

"Skilled and trained personnel in leadership or management roles are crucial to the effective implementation of any initiative."

Successful Watershed Management in the Midwest: Getting to Scale: https://bit.ly/getting2scale

Who are Watershed Leaders?

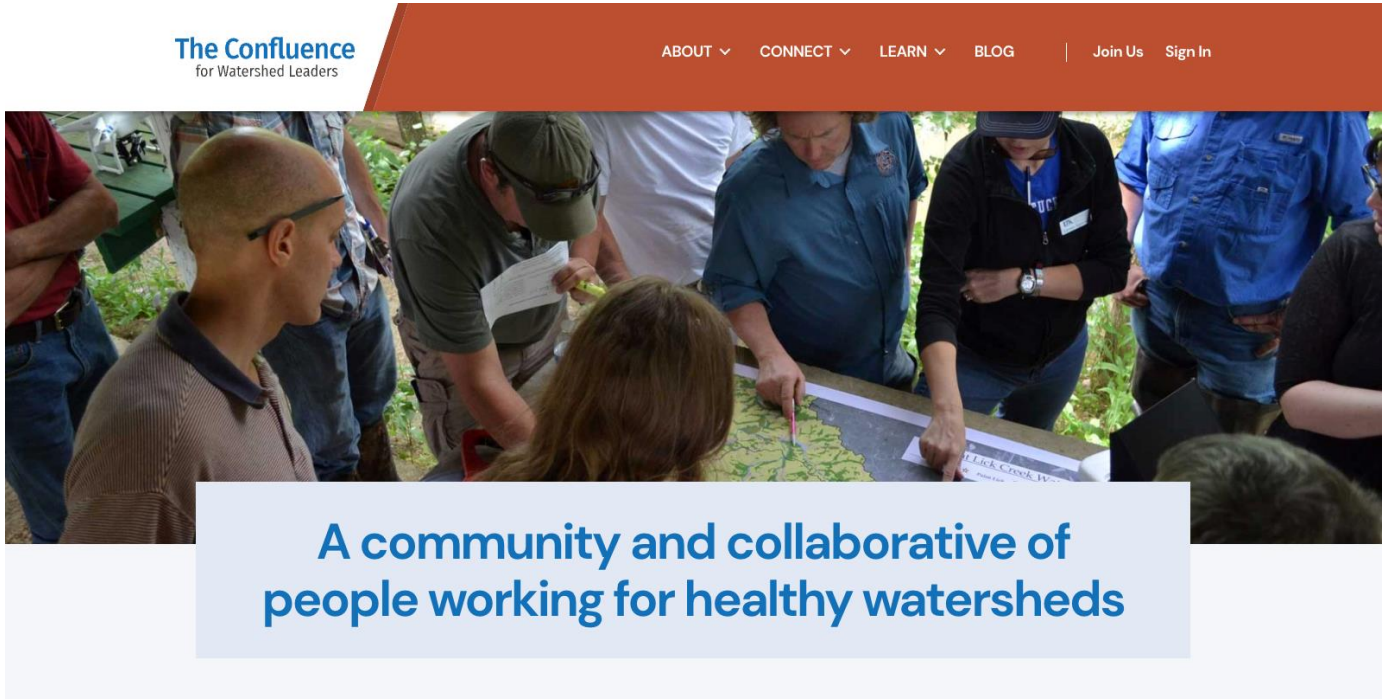
- Conservation professionals who work in a watershed context (e.g., watershed coordinators, SWCDs, etc.)
- Farmers
- Landowners
- *Civic leaders*
- *Community leaders*

Empowerment through peer learning

Photo courtesy Fishers and Farmers Partnership

The Confluence for Watershed Leaders

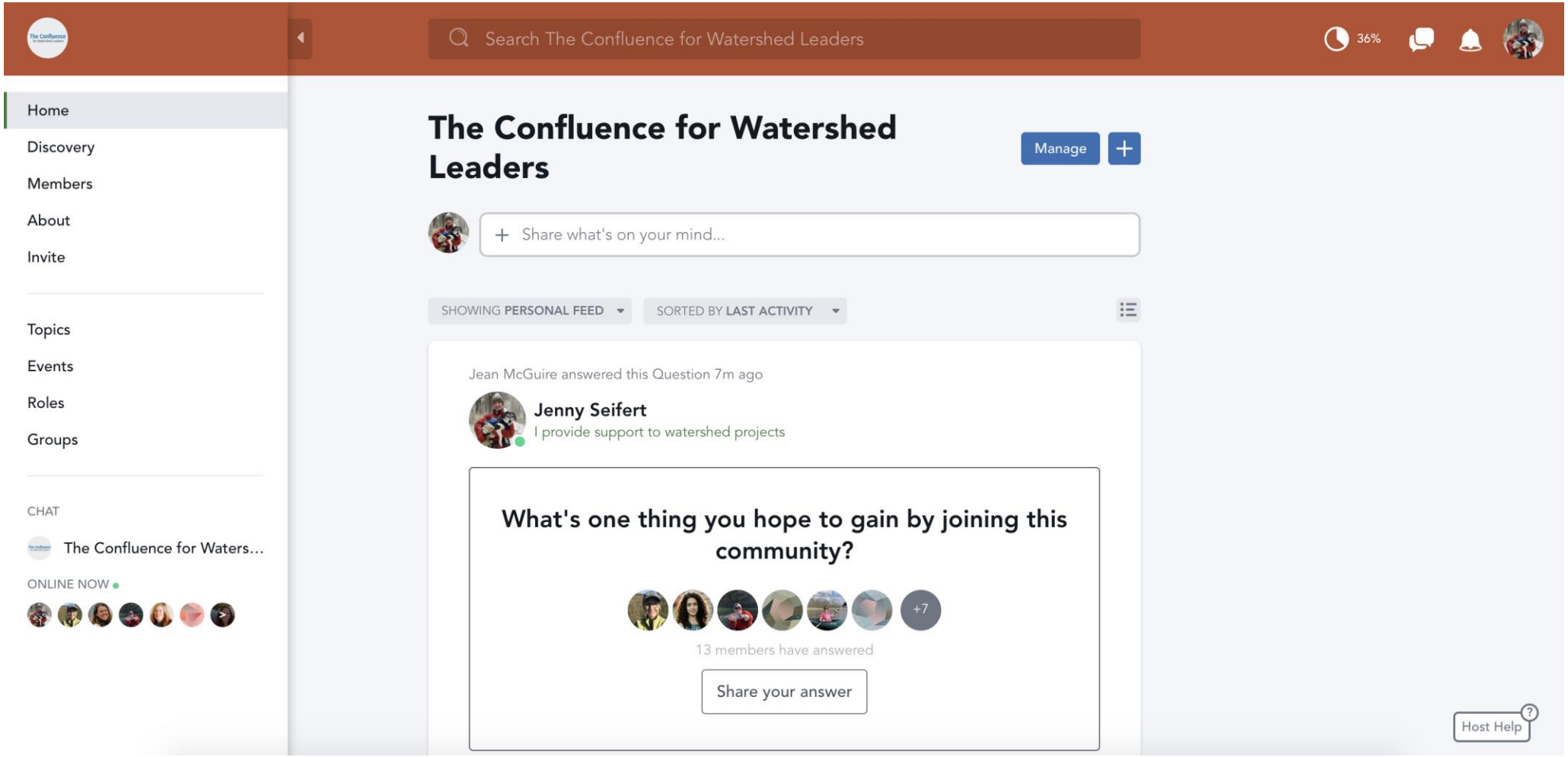
watershedleaders.org



Life Hacks over Lunch: A Virtual Meet-Up Series for Watershed Professionals

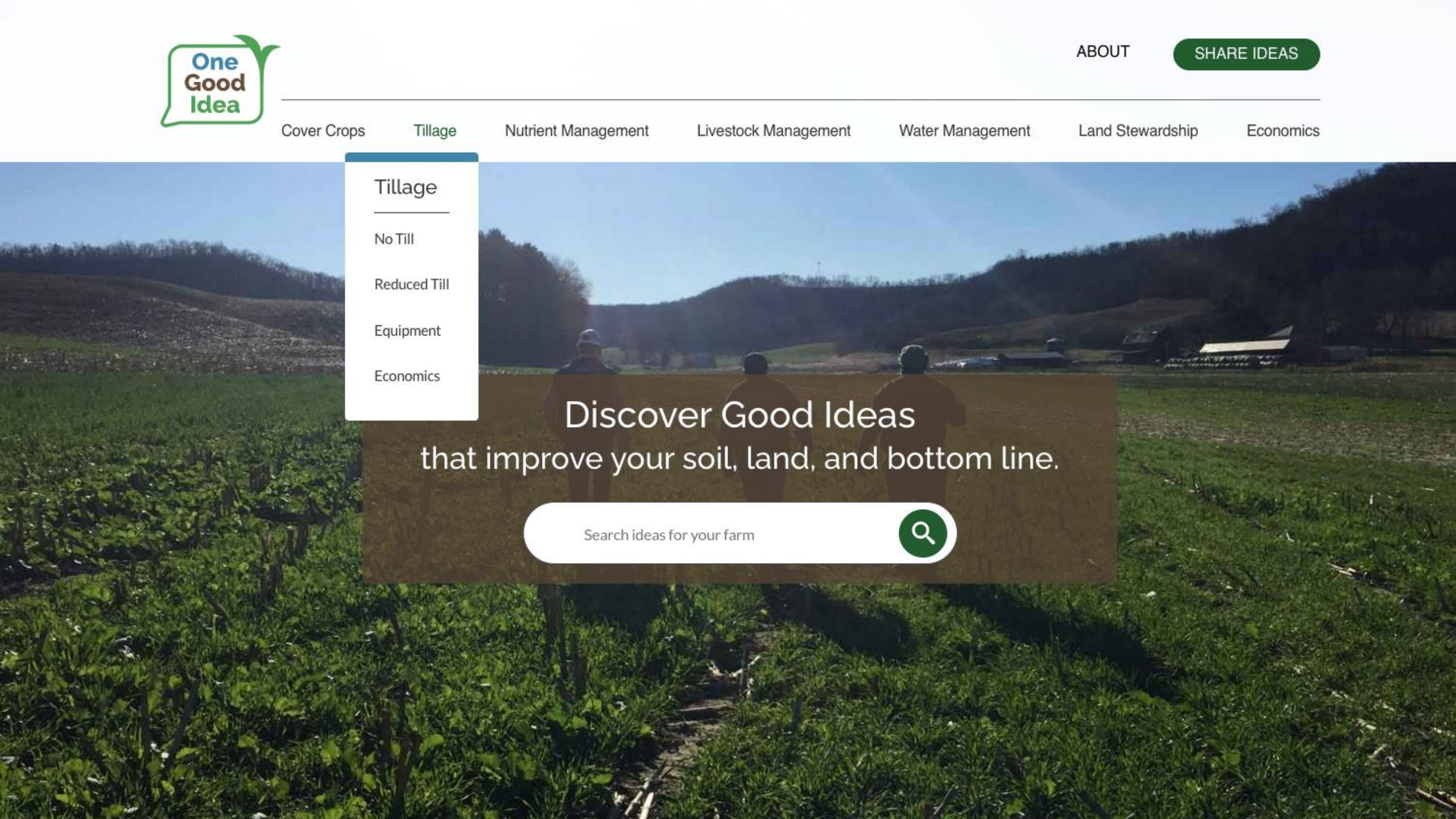
https://bit.ly/watershedhacks

The Confluence Online Community: community.watershedleaders.org



Peer-to-peer communication is considered the gold standard in behavior change science

Photo credit: Nancy North, New-Ground Communications


One Good Idea
ABOUT
SHARE IDEAS
Cover Crops
Tillage
Nutrient Management
Livestock Management
Water Management
Land Stewardship
Economics
Tillage
No Till
Reduced Till
Equipment
Economics
Discover Good Ideas
that improve your soil, land, and bottom line.
Search ideas for your farm

Moving the “moveable middle”

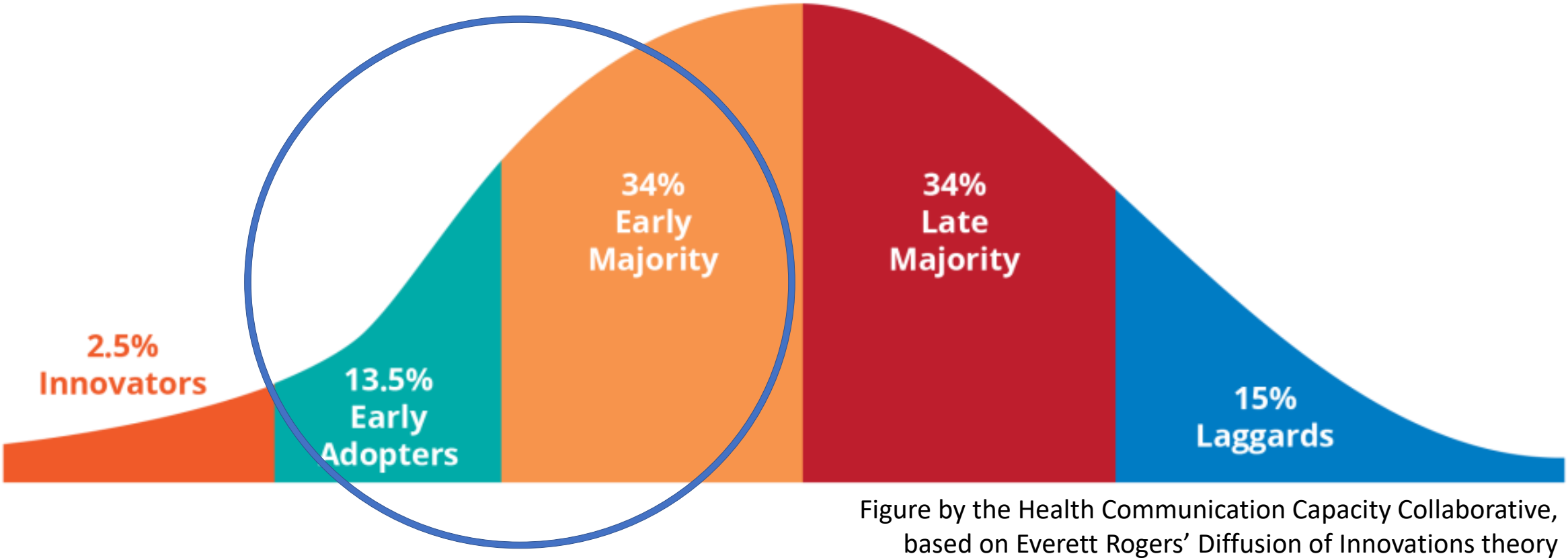
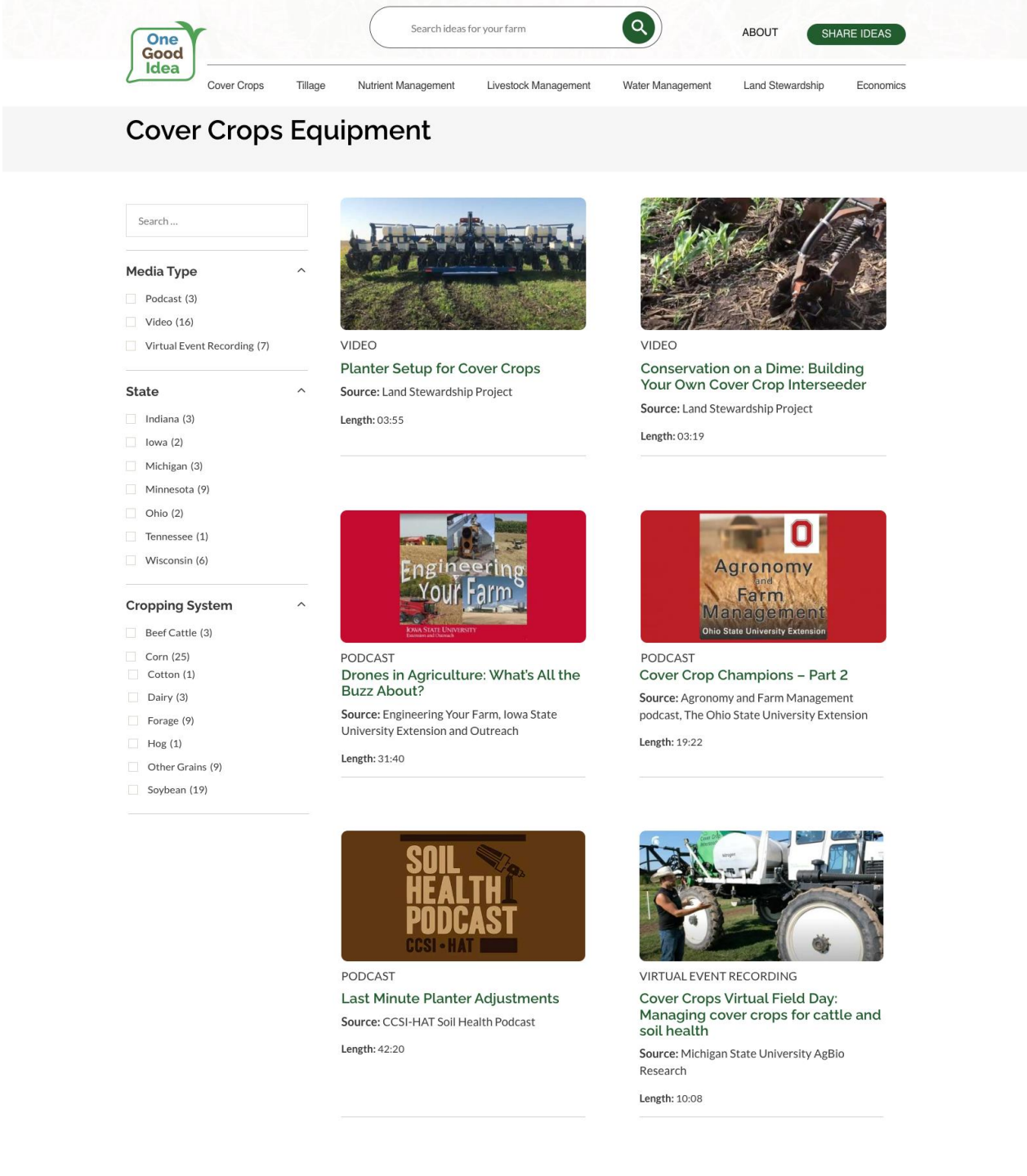


Figure by the Health Communication Capacity Collaborative, based on Everett Rogers’ Diffusion of Innovations theory

By farmers, for farmers, backed by evidence

NRCS/SWCS photo by Lynn Betts

Provides **practical** information to help farmers implement practices



FIELD WORK

The content is crowdsourced

Learn how to submit content at https://goodideafarm.org/share

How OGI supports farmers

- A **tool** for farmers to get ideas they can trust to improve their operations
- A **platform** to amplify the experiences of farmers and demonstrate the solutions they are doing

Photo courtesy Wisconsin Discovery Farms

Subscribe	to our email list: https://bit.ly/ogisubscribe
Follow	Twitter: @GoodIdeaFarm Facebook: facebook.com/goodideafarm YouTube: @goodideafarm
Share	with farmers and colleagues
Contribute	videos, podcasts, virtual event recordings.

#WhatsYourGoodIdea

goodideafarm.org

What does farmer leadership in watershed management look like?

- Lead by example
- Peer-to-peer
- Consultation
- Decision-making

Download *Fostering and Facilitating Farmer Leadership in Watershed Management Projects* at https://bit.ly/farmerleaderneeds

Photo courtesy Fishers and Farmers Partnership

Needs for Farmer Leadership

Combat leadership fatigue

Sustain group energy

Reach beyond the choir

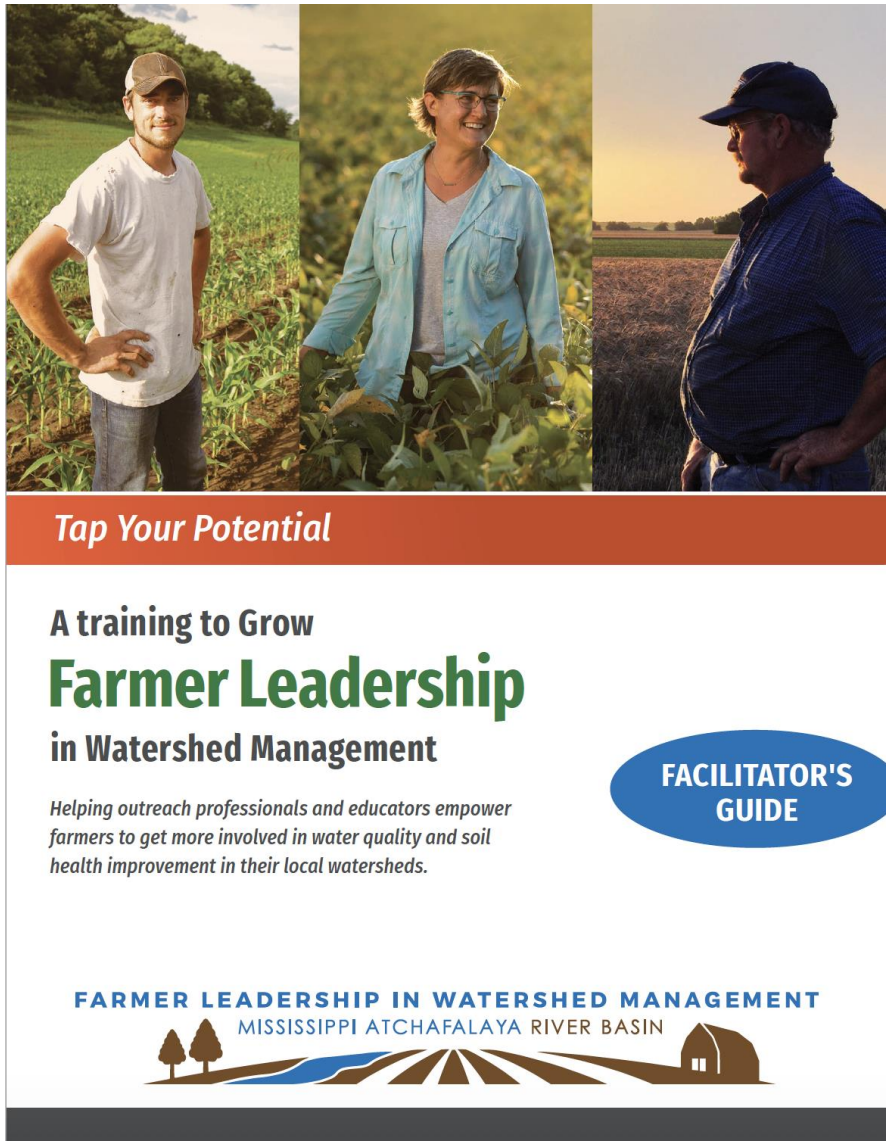
What makes a farmer a leader in conservation and watershed management?

- Integrity
- Credibility
- Humility
- Leadership commitment – i.e., willingness to lead
- Vision
- Self-learning
- Encourages others
- Stewardship/conservation ethic

Inspire more farmers to be leaders

Tap Your Potential:
A Training to Grow Farmer Leadership in Watershed Management

https://bit.ly/TapYourPotential



Learning Objectives

- Greater awareness of how farmers can lead
- Greater understanding of water quality problems and importance of farmer involvement in solutions
- A personal recognition of how they want to lead
- Motivation to seek out leadership opportunities and connections

Photo courtesy Fishers and Farmers Partnership

Core Competencies for Farmer Leadership in Watershed Management

Subject Matter Literacy	Social Capital	Communication Skills
Conservation literacy	Relationship building	Listening
Watershed literacy	Boundary spanning	Storytelling
Systems thinking	Civic capacity	Persuasion/ Understanding audiences

Forthcoming:

Conservation Farmer Network

- Persuasion/Understanding audiences
- Storytelling
- Listening
- Relationship building

Can data-driven outreach augment relationship-driven outreach?

DRAFT DESIGNS!

Climate Ready Midwest (2022-2025)

An Extension x Climate Hub Partnership to:

- Define what climate-smart agriculture means to the Midwest Extension and agricultural community, and
- Empower Extension professionals to lead climate-informed agricultural programming across the Midwest

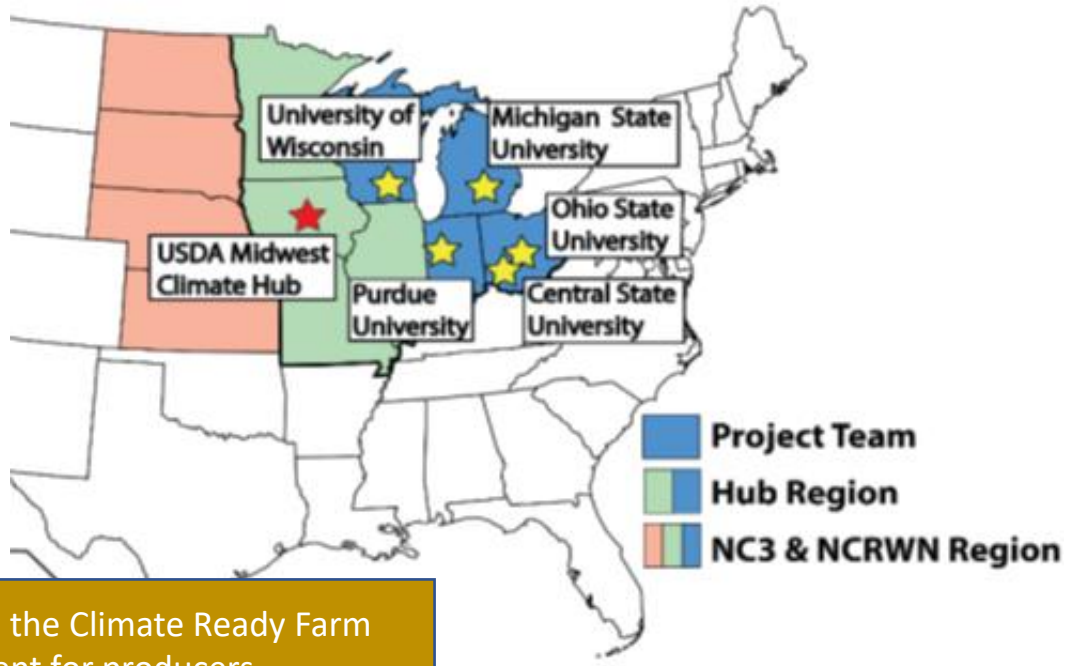
Objectives:

Understand what conditions would enable Extension to better incorporate climate into programming

Formalize partnership with the Midwest Climate Hub

Create tools and curriculum for Extension educators and regional producers

Including the Climate Ready Farm Assessment for producers



Where You Can Find All These Tools

One Good Idea: https://goodideafarm.org/

The Confluence for Watershed Leaders: https://watershedleaders.org/

Tap Your Potential and (forthcoming) Conservation Farmer Network curricula: https://watershedleaders.org/resources/

Climate Ready Midwest: https://northcentralclimate.org/climate-ready-midwest/

Supplemental Slides

Power of authenticity and simplicity

One Good Idea

Search ideas for your farm

ABOUT SHARE IDEAS

Cover Crops Tillage Nutrient Management Livestock Management Water Management Land Stewardship Economics

Home » Results Of Continuous No Till And Cover Crops In Heavy Clay Soil

Results of continuous no-till and cover crops in heavy clay soil

Source: One Good Idea

When Matt Burkholder started farming this field in Allen County, Ohio, he had to contend with three wet holes. Fast forward to today, after years of continuous no-till and cover crops in heavy clay soils, those wet holes have disappeared and the soil structure has improved. His story reflects his farm's motto: "Turning dirt into healthy soil, one acre at a time."

Length: 03:30

Year Produced: 2022

State: Ohio

Cropping Systems: Corn, Other Grains, Soybean

Tags: drainage, heavy clay soil, Soil Structure, winter wheat

Share this Video:

Contribute videos or podcasts

- Farmers must be featured
- Content must be evidence based – i.e., research or on-farm experiences
- Be practical – e.g., what was done, what was learned, failures and successes
- Information quality matters more than production quality
- Content criteria: https://goodideafarm.org/share/content-criteria/
- Video tips for farmers: https://goodideafarm.org/share/video-guidance-for-farmers/
- Submit online or by email: ideas@goodideafarm.org

Subject Matter Literacy

Conservation literacy: First-hand knowledge and experience of best management practices in conservation systems

Watershed literacy: Basic understanding of water resources issues in their watershed and downstream

Systems thinking: Basic understanding of and appreciation for the components and relationships existing in agroecosystems, watersheds, and socio-cultural contexts

Social Capital

Relationship building: Develops new relationships and maintains/strengthens existing ones with a variety of key actors

Boundary spanning: Builds relationships with individuals and organizations outside of their own networks

Civic capacity: Gets involved with formal and informal civic organizations and networks to identify and address community interests and needs

Communication Skills

Listening: Capacity to hear others' needs and experiences and convey meaning to them as a result

Storytelling: Willingness to share their story and capacity to do so in a way that motivates other farmers

Persuasion/Understanding audiences: Knowledge about how to influence farmers with varying values and perspectives about conservation practices

Advanced Competencies

Facilitation: Capacity to manage positive group dynamics and enable collaboration and progress

Leadership sustainability: Capacity to develop a succession plan for sustained and stable group leadership

Program and event planning: Ability to plan programming that facilitates sustained participation in a farmer-led group or effort

Potential Uses

Recruit farmers to be involved in local watershed projects

Help a group of farmers form a farmer-led watershed group

Help an existing farmer-led group recruit new farmers

Showcase opportunities for leadership to a young farmers group

Educate farm advisors how they and farmers can be more engaged in watershed management

You might think of others!