

EcoHarvest

A Farmer's Guide to EcoHarvest

EcoHarvest

Participating in EcoHarvest

Welcome to EcoHarvest. We developed this program to support farmers transition to, or continue implementing, conservation practices. Once you enroll in an EcoHarvest project, we'll provide on-the-ground support. We will monitor, report, and verify the measured outcomes from your practices. We then match you with companies who buy these environmental outcomes.

If you are interested in participating, you can use this guide to:

- Learn about EcoHarvest projects
- Determine your eligibility
- Learn about enrollment
- Review conservation practice options
- Understand contracts and payments

If you would like more information on EcoHarvest or to connect with our project team, please contact us support@ecoharvest.ag.



FARMER CENTRIC DESIGN

You can choose which practice changes best fit your farm to maximize your profit



LOW BARRIER TO ENROLL

No fees or minimum or maximum acreage limits, and you don't need to enroll all your land.



START-TO-FINISH SUPPORT

We're on-the-ground partners helping to implement practice changes, lead data collection, and ultimately, provide payment.

EcoHarvest projects are developed, designed, and managed by the Ecosystem Services Market Consortium (ESMC). ESMC's rewards farmers for beneficial environmental outcomes from regenerative agriculture – including increased soil carbon, reduced greenhouse gases, improved water quality, and increased biodiversity. Read more about ESMC at www.ecosystemservicesmarket.org.

Why Regenerative Agriculture?



On-Farm Benefits

Conservation practice changes included in the EcoHarvest program include planting cover crops, practicing reduced/low/no tillage, and implementing improved nutrient management. With these practices, farms can see:

- Improved soil health, tilth, and fertility
- Increased yields
- Reduced soil loss
- Increased soil organic matter
- Improved soil water holding capacity
- Improved plant health and productivity
- Reduced nutrients in surface and ground water
- Increased resiliency of your operation to the impacts of extreme weather

Payments for your Farm

Not only can the benefits of regenerative agriculture translate into more net profit, but you also receive EcoHarvest payments based on outcomes generated from these practices.

Outcomes represent measured tonnes of carbon dioxide - either as an increase in soil carbon (removals) and reduced greenhouse gases (reductions) from your enrolled fields. EcoHarvest pays you for these outcomes.



Process for Farmers

These five steps outline how to enroll, implement conservation practices, and get rewarded through EcoHarvest.

Enroll 01

Enroll in an EcoHarvest project by providing data on planned crop and conservation practices

Enter Data 03

Provide current and historical management data based on EcoHarvest project requirements

Get Paid 05

Receive payment for practice implementation

O2 Implement Practices

Adopt or continue to use eligible conservation practices (such as cover cropping, reduced tillage, improved nutrient management, etc.); EcoHarvest and partners provide agronomic and programmatic support

$\bigcirc 4$ Sample Fields

Allow field access to project soil samplers

Who Is Involved



When you participate in an EcoHarvest project, you collaborate with a team of partners to help you succeed. They include:

- **Project Managers** are locally based and manage project operations. They support you with questions on enrollment, data entry, and practice change eligibility. They work closely with EcoHarvest staff.
- **Enrollment Specialists** are your main contact for enrollment and ongoing support. They assist you with data entry, signing agreements, and ensuring you meet project timelines and deadlines.
- Technical Assistance Providers help you plan and implement approved practices. These
 experts can work with you to identify which practices may be best for your geography, soil
 type, operation, and production system.

Our Commitment to Data Privacy

Ecosystem market programs are data driven and ultimately require farmer data to show the benefits of their stewardship and actions. To function effectively, these programs must earn farmer trust through transparency and a focus on data privacy and protection.

In 2023, EcoHarvest earned <u>Ag Data Transparent (ADT) certification</u> from Ag Data Transparency Evaluator, Inc., – the industry's only not-for-profit organization focused on providing transparency, simplicity, and trust between farmers and their ag tech providers. EcoHarvest's commitment to trust and transparency in our program is showcased through ADT certification and we ensure all our partners and collaborators adhere to our data privacy and protection requirements.



Participation Details: Eligible Fields



To be eligible to participate in EcoHarvest, the following must be true:

- Your fields can be enrolled in federal, state, and local cost-share programs that reduce the cost of conservation practice implementation. We encourage you to take advantage of these programs.
- 2. As a producer, you must adopt conservation practices which go beyond the minimum standard set by law.
- 3. You either must implement new eligible practice change(s) on cropland or continue adoption of eligible practices.
- 4. You must provide proof of field ownership or a rental agreement.
 - a. Fields *can* be owned by the state or local government.
 - b. Fields *cannot* be federally owned.
 - c. For *rented* fields, you must have written permission from the landowner to participate.
- 5. Fields deforested in the past 10 years are ineligible.
- 6. Your fields cannot have been converted from grassland to cropland in the past 10 years.
- 7. Your fields enrolled in EcoHarvest cannot be enrolled in another program related to greenhouse gas reductions such as a credit, offset, impact unit, or claims program. You are welcome to participate in multiple programs as long as each of your fields is enrolled in only a single program.
- 8. Your fields must be producing specific EcoHarvest-approved crops for the region (see page 8). The EcoHarvest program regions are highlighted in green on the regional map on page 6.

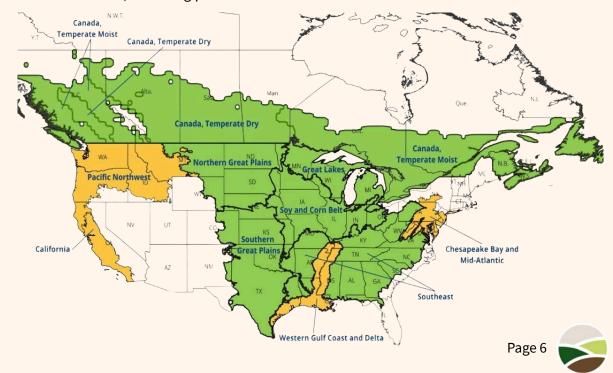
Participation Details: Eligible Fields



After reviewing the eligibility considerations, and if your fields are located in a project region (those regions in green), contact our project team and they can work to match you with an operating project in your area. Additional benefits to participating in EcoHarvest include:

- 1. Once enrolled, you can add practices and new acres to a project.
- You can enroll as few or as many acres as you like although we recommend you enroll all eligible fields to maximize your compensation and impact.
- 3. You can enroll just part of your farm, but we do ask that you enroll whole fields at a time rather than partial fields.
- 4. You maintain ownership of all your data. That also means that EcoHarvest will not sell your data it is yours.
- 5. Participating in EcoHarvest is free. There is no requirement to purchase new inputs or subscriptions, etc.
- 6. EcoHarvest and our project partners support you throughout the project.
- 7. Your contract for an EcoHarvest project lasts 5 years, providing certainty and support.

EcoHarvest is operating projects in the regions in green. Those in yellow are in research and/or testing phases.



Participation Details: Enrolled Fields



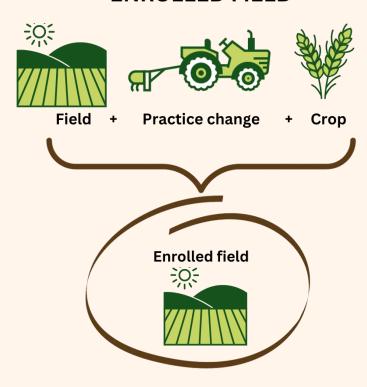
Eco-Harvest projects require that practices are tied to a crop and to every enrolled field.

Fields with eligible crops and new or maintained practices ("practice changes") for a project are considered enrolled fields.

We encourage you to enroll fields that are also eligible for federal, state, and local cost-share programs such as <u>EQIP</u>, <u>CSP</u>, and other <u>NRCS</u> programs to take advantage of those incentives.

The next sections will highlight which crops and practices are eligible for participation.

ENROLLED FIELD



Participation Details: Crops



Eco-Harvest projects <u>must include</u> one or more of the following **Primary Crops** over the 5-year contract:

- Corn
- Soybeans
- Wheat
- Oats

Additionally, the project can also quantify the following *crops in rotation* with the above *Primary Crops*.

- Alfalfa
- Barley
- Buckwheat
- Canola
- Clover
- Dry Bean
- Flax
- Lentil
- Millet
- Mustard
- Pea
- Peanut
- Popcorn
- Potato
- Pumpkin

- Radish
- Rye
- Ryegrass
- Sorghum
- Sugarbeet
- Sugarcane
- Sunflower
- Sunn Hemp
- Sweet Corn
- Teff
- Triticale
- Turnip
- Vetch
- Watermelon
- Wheatgrass

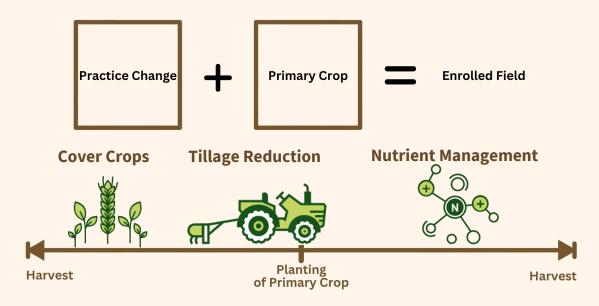
Participation Details: Eligible Practices



EcoHarvest offers a variety of conservation practice options tailored to different projects and crops. Before implementing any practices, contact your project manager or enrollment specialist to ensure that your proposed practice(s) are eligible. Farmers who are both implementing new practice changes or continuing with existing practices are eligible as long as they meet all other project criteria.

For 2025 projects, EcoHarvest project eligible practices include: cover crops, tillage reduction, and nutrient management.

Note that while enrolled in EcoHarvest, the practices need to be applied to the primary crop each year the crop is grown for the length of your contract. The timing of practice implementation, and how they relate to the crop, may look something like this:



Details for eligible conservation practices (cover crops, tillage reduction, and nutrient management) are included on pages 10 - 12.

Cover Crops

Definition	Types of Impact Units (Outcomes)	Potential Benefits	Implementation				
Cover crops are plants that are planted to cover the soil rather than for the purpose of being harvested.	 Greenhouse Gas Water 	 Reduce soil erosion Suppress weeds Increase soil organic matter Limit nitrogen leaching Increase water infiltration Greater biodiversity Greater canopy area coverage Some cover crops can serve a dual purpose as pastureland for livestock and wildlife. 	Typically, a producer plants cover crops in the late summer or fall around harvest and before spring planting of the following year's crops.				
Maximize the Eco-Harvest Payment	Example	Data Requirements	Resources				
Generally, a producer maximizes the Eco-Harvest payment by growing a cover crop for the longest amount of time and by allowing animals to graze the cover crop.	If selecting cover cropping as the practice change, the cover crop, the field and the next commodity crop that follows the planting of the cover crop are all linked. How it looks: if a producer plants a cover crop(s) before a soy crop, the GHG benefit and the ensuing credits will be linked to the soy crop. The process: During the data collection procedure, producers will be asked if the cover crop was terminated or harvested. If cover crops will not be terminated within the harvest year (e.g. underseeded cover crops), please speak to your ESMC Project Manager to discuss eligibility.	 Type of cover crop(s) Rate of application Seeding methodology Planting date Winter or non-winter termination Termination date 	General Overview: SARE: Cover Crops for Sustainable Crop Rotations Cover Crop Economics - Opportunities to Improve Your Bottom Line in Row Crops Video EQIP Program for Cover Crops Practical Farmers of Iowa Cover Crop Cost-Share Program MCCC cover crop selection tool NECCC cover crop selection tool SCCC cover crop selection tool				

Tillage Reduction

Definition	Types of Impact Units (Outcomes)	Potential Benefits	Implementation
Tillage Reduction describes a reduction in the frequency or intensity of tilling.	Greenhouse Gas Water Quality	 Reduce reliance on farm machinery and equipment Reduce fuel and labor costs Improve soil health Reduce runoff Reduce soil erosion Reduce flooding 	 Reduce the number of tillage events Reduce tillage depth Tillage implements that reduce soil disturbance
Maximize the Eco-Harvest Payment	Example	Data Requirements	Resources
Minimizing tillage events and depths and using implements to reduce soil disturbance will maximize payments to the producer.	If selecting tillage reduction as the practice change, the new tillage practices, the field and the next commodity crop that follows the new tillage practices are all linked. How it looks: If a producer traditionally tilled their field twice per year at a depth of 8 inches and moved to 2 inches once a year on a wheat crop then the greenhouse gas benefits, and the ensuing credits, will be linked to the wheat crop.	 Tillage dates Tillage implements Tillage depth % field residue If strip till or strip freshener: Widths 	SARE: What is Conservation Tillage? SARE: Conservation Tillage and Soil Health (Video) SARE: Conservation Tillage and Soil Health (Video)

Nutrient Management

Definition	Types of Impact Units (Outcomes)	Potential Benefits	Implementation	
Nutrient Management describes modifying the rate, source, placement, and timing of plant nutrients and soil amendments to reduce environmental impacts. Sources of nutrients include but are not limited to commercial fertilizers, animal manures, legume fixation credits, green manures, plat or crop residues, compost, organic by-product, municipal and industrial biosolids, wastewater, organic materials, estimated plant available soil nutrients, and liquid fertilizers applied through irrigation water.	Greenhouse Gas Water	 Mitigate nitrogen emissions Improve plant health Improve plant productivity Reduce excess nutrients in surface and ground water Reduce emissions of objectionable odors Reduce particulate matter Reduce greenhouse gasses Reduce risk of pathogen spread Improve and maintain soil organic matter 	 Anhydrous Ammonia Applicator Banded & Incorporated Broadcast Fertigation, Drop, Furrow, Sprinkler, Subsurface drip Foliar Injected Sidedress Surface banded Topdress 	
Maximize the Eco-Harvest Payment	Example	Data Requirements	Resources	
Generally, using fewer, targeted applications and substituting typical chemicals with alternative fertilizers, herbicides, insecticides, fungicides and pesticides increases a producer's payments.	If selecting nutrient management as the practice change then the field, the crop and the practice change nutrient management are all linked. How it looks: if a producer changes a fertilizer application or type, compared to historical practices, on a corn crop then the greenhouse gas benefits, and the ensuing credits, will be linked to the corn crop.	Fertilizer:	 NRCS Conservation Practice Standard - Nutrient Management The 4Rs NRCS - SMART Nutrient Management Building Soils for Better Crops - Nutrient Management EPA - Nutrient and Run off Management 	

Participation Details: Enrollment



After you confirm your eligibility with an enrollment specialist for each eligible field, primary crop, and practice change(s), it's time to enroll. Here are the steps:

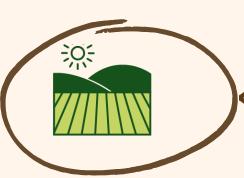
- 1. Receive an invitation to create an account in the EcoHarvest Producer Portal. This is where you will enter data and sign participation agreements.
- 2. In the Producer Portal, review and sign business and contractual documents. These include:
 - a. General Terms & Conditions is signed when first enrolling
 - b. Privacy Policy clarifies details on data ownership and sharing
- 3. Enter field boundaries in the Producer Portal. Your enrollment specialist can help you compile this data we use it to determine which specific fields are being enrolled.
- 4. Identify practices for all your enrolled fields and crops.
- 5. Enter planned crops for that crop year. The EcoHarvest team will review your submissions and follow up with any questions.
- 6. Sign the Producer Agreement in the Producer Portal. The Producer Agreement will include details on your project and a participation timeline.
- 7. Enroll in BILL, an online payment system, and submit a W9 for payment.
- 8. Add required historical data. This is described in more detail in the following "Data Requirements" section of this guide.
- 9. Enter current crop year data once harvest is complete.

Project enrollment deadlines are usually end of the calendar year. For specific deadlines on the project you are interested in, <u>contact EcoHarvest</u>.

Participation Details: Enrollment Timing



Once you are ready to enroll, you will need to provide current and historical data. These producer data requirements vary by project type, practices, and other factors. At a high level, data are typically required on a field basis for the following:



- Field attributes including location, size, presence of tile drainage
- Crop type(s) and associated yield
- Planting and harvesting activities
- Tillage
- Cover crops
- Fertilizer and pesticides
- Irrigation
- Grazing and Herd management
- Electricity and fuel (optional)

EcoHarvest uses historical data to understand how much soil carbon is stored and how much greenhouse gases are reduced. How many years of data required will depend on whether or not the crop in the enrolled field was grown in the past three years.

- 1. ESMC requires historical data from each of the last 3 years (assuming the crop was grown during those years).
- 2. **If** the enrollment-year crop was not planted in the previous 3 years, we need data from the last year the enrollment-year crop was grown.

Participation Details: Soil Sampling & Costs



Soil Sampling

Things to know about soil sampling:

- In the first year of the project, our soil sampling partner will sample all enrolled fields for carbon and soil density (note, fertility testing is not a part of our program at this time). This is at no cost to you. Soil sampling establishes how much carbon is currently in your soil to help determine the change in soil carbon at the end of each year.
- Our soil sampling partner will call you 2 4 weeks prior to planting or harvesting to coordinate sampling on your enrolled fields. They will reach out again with a minimum 24-hour notice when their field crews are ready to sample.
- During sampling, you need to allow the soil sampling team access to your enrolled fields.

You can review the results of your soil sample about 3 – 4 months after collection.

Costs for Enrollment

There is no cost to enroll in EcoHarvest. However, conservation practice changes typically include increased operational costs.

Costs that you incur may include cover crop seed, new planting or cultivation equipment, different labor requirements, etc.

Some of these expenses may be eligible for NRCS or other state programs. We encourage you to consider using these programs to offset conservation practice implementation costs.

Participation Details: Outcomes Quantification & Payments

Outcomes Quantification

Annually, we use your historical and current year data, first-year soil sample results, and publicly available weather data in a scientific model to calculate the amount of increased carbon stored in the soil/reduced greenhouse gases based on your practices. These outcomes form the basis of the quantified and verified outcomes that food and beverage companies purchase to meet commitments to reduce emissions in their supply chain.

As an example of how this works in practice, each year:

- 1. You adopt eligible conservation practices on fields within an EcoHarvest region.
- 2. EcoHarvest takes soil samples at the project onset in Year 1 and then again in Year 6 (five years after the original sample).
- 3. An Enrollment Specialist works with you to collect and enter data. You will provide both current year data as well as historical data for any enrolled fields.
- 4. EcoHarvest will review data for any missing details.
- 5. Based on the data, EcoHarvest quantifies the outcomes.
- 6. The outcomes are verified by a third party and then packaged into a saleable unit.
- 7. Food and agricultural companies pay for the outcomes to use in their annual reporting. You continue to own your data; ESMC licenses the data to companies who pay to use the outcomes from your enrolled fields.
- 8. You are paid by EcoHarvest.

Your Payment

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We use a hybrid payment program, meaning you are paid based on both outcomes from your conservation practices as well as a participation payment. You will be paid for tonnes of carbon dioxide. Your payments are based on the quantified increase in soil carbon (removals) and reduced greenhouse gases (reductions) from your enrolled fields as well as your participation in the project.

Each project has different payments and rates, and your project team will provide project-specific payment information. Payments are issued within a year after harvest.

If you would like more information on EcoHarvest or to connect with our project team, please contact us support@ecoharvest.ag.

