

The Carbon Marketplace

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A. **What is the Carbon Marketplace?** The Carbon Market makes it possible to pay people to remove carbon dioxide from the atmosphere. The agricultural carbon market refers to mechanisms available for working landowners that enable the financial sale of accumulated soil carbon found in soil organic matter. Over 140 million acres of U.S. farms currently have adopted some form of practices that lead to these healthy soils. These practices are commonly referred to as conservation or regenerative agriculture. At this time the vast majority of these acres that accumulate soil organic matter are not enrolled in a financial carbon market as the carbon marketing process is fairly new to the industry.

In Australia some 116 million acres are voluntarily enrolled in some 570 projects where landowners are accumulating wealth and agronomic savings while accumulating soil organic matter.

There are two types of carbon markets that are driving demand today.

- compliance markets based on governmentally imposed limits on GHG emissions (e.g., California's Cap and Trade Program); and
- voluntary markets (e.g., corporate sustainability reporting).

Today, most carbon markets are voluntary, incentive-based markets where companies are linking buyers and sellers of carbon credits. The sellers, typically farmers, are paid for generating carbon credits by adopting management practices that meet specific beneficial ecosystem criteria. The most common practices include no-till/reduced-till, cover crops, crop rotation, and buffer strips that sequester carbon. Farmers are typically paid based on the amount of carbon sequestered, either on a per-acre basis or per ton of carbon sequestered.

Once the carbon credit is generated, it enters the market where buyers can purchase those credits to meet their sustainability goals (e.g., carbon neutral by 2040). Today, most transactions occur through a third-party entity (aggregator), which links sellers (farmers) to buyers (corporations). Since carbon markets are still developing, price discovering is occurring, and payments for carbon credits may or may not always cover the cost of implementing new management practices.

Links for more general information:

[Carbon Markets 101](#)

[Carbon Marketing Resources](#)

How does it work?

1. Define your project

- Get project qualified & accepted by carbon market company. A multistep procedure:
 - record history of land use (“intake form”),
 - define and follow some new, additional practice(s)
- Hire an independent third-party validator to verify project feasibility. Interim verifier reports provide reasonable assurance that the Supplier’s Annual Project Data reasonably represents the practice and operating history for the lands that comprise the Project (the “*Interim Verification Report*”).

Sign agreement (contract)

2. **Establish baseline** amount of soil organic matter in the soil.
3. **Carry out the approved project** enriching soil carbon levels.
4. **Remeasure soil organic matter** (SOM) levels at future intervals.
5. Develop **agreement with an international carbon registry**--project is internationally registered if SOM increased.
6. **Claim carbon credits**. A serial number is assigned by the carbon registry for each verified offset credit to create a viable, credible, trackable offset.

Links:

[Ecosystem Marketplace](#), an initiative of the non-profit organization Forest Trends, is a leading global source of information on environmental finance, markets, and payments for ecosystem services. The site provides an overview of what the carbon marketplace is and is a global source of information:

B. Programs and Opportunities

Some Carbon Markets determine eligibility for participating farmers/ ranchers and land managers through computer modeling of carbon sequestration and others use onsite soil testing. There are advantages and disadvantages to both, however the best practices are still emerging.

Programs Based on computer modeling: ([Nori](#), for example)

Some carbon markets determine if a farmer is eligible to qualify for the carbon marketplace by inputting cropping data into an online program that creates a reasonable estimate of the carbon sequestered based on practices such as the crop planted, how it was harvested or terminated, what amendments were applied, and how the field was irrigated, etc. The U.S. Department of Agriculture suggests using [Comet Planner](#) to estimate if your farm is sequestering enough carbon to apply for the carbon marketplace.

Programs Based on soil samples: [Agoro](#), for example

Some carbon markets determine if a farmer is eligible to qualify for the carbon marketplace through extensive soil testing. Agoro Carbon™ Alliance is creating a new solution to our carbon challenge that's grounded in the soil.

C. Determine if the Carbon Marketplace is right for me? Pros/cons

The Comet Planner is an evaluation tool designed to provide generalized estimates of the greenhouse gas impacts of conservation practices and is intended for initial planning purposes. Site-specific conditions (not evaluated in this tool) are required for more detailed assessments of greenhouse gas dynamics on your farm. Please visit [COMET-Farm](#) if you would like to conduct a more detailed analysis of your farming practices.

Farmers will be asked if they are:

- Currently farming cropland in the continental United States
- Adopted any of the **agricultural conservation practices listed below** and other identified at this link by USDA after 2012
 1. Reduced or no tillage
 2. Cover cropping
 3. Increased biodiversity
 4. Adoption of organic amendments
 5. Adding or changing crop rotations
- Have verifiable farm records from the switch through present time
- Are able to pay for project verification costs (\$3,000-5,000)
- Secure "**assignment of authority**" from any landowners
- Willing to sign a contract or agreement for a specific time period (varies according to marketer)

More on who is eligible.

It is important to determine which practices sequester carbon and are highly effective in sequestering carbon in the soil. These practices are important in both your baseline and future switches to help understand the project's potential Soil Organic Carbon gain:

<i>Reduced tillage or no-till</i>	<i>Increased biodiversity in crop rotations</i>
<i>Cover crops (particularly legume mixes)</i>	<i>Winter wheat following an annual</i>
<i>Adding (or increasing) organic manure</i>	<i>Longer growing seasons</i>
<i>Perennials (grasses, alfalfa)</i>	<i>Adding crops to alleys of orchards and vineyards</i>

D. Can I qualify?

In order to determine if your farm will qualify for the Carbon Marketplace, it will be helpful to run some projections of your farm's carbon sequestration through the Comet Planner tool mentioned earlier. This information will be useful when the farmer is ready to complete an intake form. Here is an [example](#) of the information needed to determine if the farm will qualify:

ADDITIONAL INFORMATION,

There are several registries in the voluntary offset market, which have been developed by governments, non-profits, and the private sector. The following voluntary registries are currently operating, among others:

[American Carbon Registry \(ACR\)](#)

[APX Inc.](#), administers the following offset registries:

[Gold Standard Registry](#)

[Climate Action Reserve \(CAR\)](#)

[Registries & Enforcement](#)

