

Carbon Market Programs

The agricultural sector is the only economic sector that can transform to a net reducer of greenhouse gas emissions (GHG) through carbon sequestration. Incentivizing land managers to adopt practices or systems that have carbon-sequestering effects will be paramount to reduce climatic changes caused by higher GHG emissions. Additionally, an increase in soil organic carbon levels has a myriad of soil health benefits including physical stability, chemical composition, and biological productivity.¹

Carbon markets are a mechanism to incentivize and pay land managers for adopting production styles that increase carbon sequestration in working lands. They are voluntary markets which connect a ‘buyer’ and a land manager/farmer known as a ‘seller.’ The goods that are purchased in this transaction are called ‘carbon credits.’² A private or public company typically facilitates the process between the buyer and the seller through a carbon program. These programs, as listed in this resource document, first assist land managers to verify their carbon credits and then sell them on a carbon marketplace.³

Each program differs in its enrollment criteria, including payment structure and rates, contract duration and third-party verification protocols. This document is divided between ‘agriculture’ and ‘woodland’ programs. For the agriculture programs, all require new practice implementation in some capacity as these changes are utilized to estimate carbon sequestration amounts. However, some programs ‘look back’ and pay farmers for practice changes within a limited time frame before program enrollment. Others only pay for new carbon-sequestering practices that were adopted post-enrollment in the program. We recommend that you always read the fine print and seek legal advice when necessary to go over any documentation and contractual agreements.

This document outlines current carbon market payment providers that are available for New York State farms or forests (or may become available in the near future). Cornell Cooperative Extension of Tompkins County does not officially endorse any of the programs; this document serves as a resource to interested farmers.

Note: Each program is bookmarked to its location in the document.

¹ Cornell University College of Agriculture and Life Sciences Field Crop Extension. “The Carbon cycle and Soil Organic Carbon.” *Agronomy Fact Sheet Series* (91), <http://nmisp.cals.cornell.edu/publications/factsheets/factsheet91.pdf>.

² Carbon credits are defined as “a tradeable certificate representing the right to emit one metric ton of carbon dioxide (CO₂) or the equivalent amount of another greenhouse gas (such as methane, nitrous oxide, etc.), called a carbon dioxide equivalent (CO₂-eq).” See Sellars, S., G. Schnitkey, C. Zulauf, K. Swanson and N. Paulson. "What Questions Should Farmers Ask about Selling Carbon Credits?." *farmdoc daily* (11):59, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 13, 2021.

³ Some programs require farmers to participate in their company’s carbon marketplace and others allow a seller to access other markets to sell their carbon credits.

Agriculture Programs

Carbon by Indigo

Nori

Soil & Water Outcomes Fund

Truterra

Woodland Programs

Family Forest Carbon Project (FFCP)

Working Trees

Other Woodlands Opportunities

Carbon Market Resources

Other Resources

Carbon by Indigo

Website: <https://www.indigoag.com/carbon/for-farmers?hsLang=en-us>

Eligibility:

- Farm field crops in a state within Indigo's current service area (Alabama, Arkansas, Colorado, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, **New York**, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, Wisconsin)
- Adopt or advance at least one new carbon farming practice, such as adding cover crops, increasing cover crop diversity or growth period, reducing tillage, improving nitrogen timing, or diversifying your rotation
- Submit field and management information by required deadlines, beginning with entering your field boundaries in our web platform (or importing from third-party systems)
- Increase carbon sequestration and/or reduce greenhouse gas emissions on your farm, as determined by Indigo based on your farm records

The current list of qualifying practice changes include:

- Adding cover crops (for the first time, extending the duration, or diversifying your mix)
- Diversifying your crop rotation
- Reducing or eliminating tillage
- Improving nitrogen timing

Payment Rates:

- Their marketplace currently offers a guaranteed minimum payment of \$15 per metric ton of carbon sequestered.

Verification Protocols:

- Their specific verification protocols are unclear and not readily available; however, they do require third-party verification.

Important to Note:

- Participating farms are required to submit management practice information including 3-5 years of historical data and current season details (planting and harvest dates; fertilizer types, amounts, and application dates; tillage types and dates; cover crop types, planting dates, and termination methods; and organic amendments if applicable). Participating farms have free access to Carbon by Indigo's web platform for farm record management.

- Fields with tile drainage added or expanded during an Indigo Carbon contract (repair or replacement of preexisting tile drainage is permissible) are disqualified from program participation.
- Enrollment in this program does not affect eligibility for government funded programs; however, enrolled fields may not be enrolled in another carbon removal program.

Links:

[Enrollment website](#)

Nori

Website: <https://nori.com/growers>

Eligibility:

- You have adopted regenerative agriculture practices within the last ten years.
- You have quality farm management records. (You need to provide records for the past 20 years and projections of the next 10 years).
- You can provide digital field boundaries for fields you want to enroll.
- Your fields are US based croplands.
- The land has not been enrolled in the Conservation Reserve Program in its historical land use since 2000.
- You can pay the project verification costs (\$3,500-\$5,000).

Payment Rates:

- Carbon credits sold as Nori NRTs⁴ are currently being sold for \$15 per ton of carbon sequestered. On average, participating farms are sequestering 0.5 metric tons of carbon per acre per year.

Verification Protocols:

- Farms will sign a ten-year contract to participate. Each year, farms will need to update their farm records in the NORI system. They will also be subject to verification requirements (see below).
- Farms are required to verify their data when joining the program and at minimum, every three years during their ten-year contract. For each verification cycle, there will be a fee. Farms will receive carbon payments every time they go through the verification process and can choose to verify more often during the contracted period.

Important to Note:

- Nori only sells one farm's carbon credits at a time right now. Payments may be delayed several months for farmers after verification is completed. The payment schedule is dependent on how fast credits are being sold within the marketplace.
- To cover the verification costs, with a current floor price of \$15/tonne and average 0.5 tons of carbon/acre/year sequestered, it would take **466 acres** to break even with the verification costs.

⁴ NRTs are Nori Carbon Removal tonnes. These are defined as 'One NRT represents one tonne of removed CO₂e stored for a minimum of ten years.'

- Farms may aggregate together to reduce individual verification costs. Interested farms would need to assign a 'Data Manager' who would act as the farms' liaison with Nori. All payments would be calculated based on each individual farm's data and would be sent to each individual farmer.
- Farms need to sell at least 15% of their NRTs in the Nori Marketplace. They may sell up to 85% in another carbon marketplace.

Contact:

Jada Dormaier

Email: jada@nori.com

Links:

[Enrollment Form](#)

[Enrollment webinar \(Jan.2022\)](#)

Soil & Water Outcomes Fund

Website: <https://www.theoutcomesfund.com/>

Eligibility:

- Your fields must be in an eligible county,
- You must be willing to adopt at least one new conservation practice,
- Your field must be HEL and Wetlands compliant,
- You must enter past and proposed practice information and field boundaries on the Soil and Water Outcomes Fund enrollment website,
- **You cannot enroll any fields that are currently receiving government cost-share program assistance.**

Enrollment Process:

STEP 1. Use the farmer web portal at [theoutcomesfund.com](https://www.theoutcomesfund.com) to create an account, map your field boundaries, and enter baseline and future cropping system information.

STEP 2. Review the proposed payment offering emailed to you within 1-2 weeks after data submission and determine if you wish to continue to participate.

STEP 3. E-sign the contract emailed to you to confirm your participation in the Soil and Water Outcomes Fund, and receive 50% of your payment at signature.

STEP 4. Receive technical assistance from Soil and Water Outcomes Fund conservation agronomists as needed to implement conservation practices.

STEP 5. Receive the remaining 50% payment after the crop year is complete and your farm's environmental outcomes are measured and verified.

Payment Rates:

- The average payment in 2020 was \$35/acre.⁵ The highest payment was \$50 in 2020.⁶ Payments vary by location/program.
- “The contract is currently a one-year annual contract. You can re-enroll acres if you are willing to continue and/or include more practices. You will receive 50% of the payment

⁵ SWOF, “SWOF Original: Why Should Food and Agricultural Business-Related Companies Pay for Outcomes? (vs. Pay for Practices).” News + Impact. September 14, 2021. <https://www.theoutcomesfund.com/in-the-news/swof-original-why-should-food-and-agricultural-business-related-companies-pay-for-outcomes-vs-pay-for-practices> Accessed 3.4.2021.

⁶ Iowa Soybean Association. “Soil and Water Outcomes Fund.” State of Soy. November 4, 2020. https://www.youtube.com/watch?v=4WJv_MTIYZs Accessed 3.4.2021.

based on estimated outcomes in the spring to help with seed costs, etc., and the remaining 50% is paid in November/December after outcomes and practices are verified.”⁷

Verification Protocols:

- Their verification protocol is unclear from the website.

Important to Note:

- **2023 enrollment in NYS is only open to farmers in the Lake Ontario watershed.**
- Enrollment closes once they reach their acreage goal for the year.

Contact:

Email: info@theoutcomesfund.com

Links:

[Informational sheet](#)
[FAQ](#)

⁷ See <https://www.theoutcomesfund.com/farmer-resources>

Truterra

Website: <https://www.truterraag.com/Carbon>

****Currently not open to NYS farmers but may be in the near future****

Eligibility:

- Qualifying management practices include reduced/no till and addition of cover crops.
- Practice changes must have been made between crop year 2019 and crop year 2021.
- The program is available within cropping systems including corn, soybeans, wheat, or cotton in rotation.
- Requires a five-year contract for new practice implementation. This can include a combination of recently adopted and future practices totaling five years.

Enrollment Process:

- Take survey: If eligible, complete data collection.
- Data collection: If eligible, have soil samples taken.
- Take Soil samples: Soil samples are covered by Truterra.
- Payments are sent pending verification.

Payment Rates:

- Price is \$20/ton for additional carbon removed due to practice changes on eligible land.

Verification Protocols:

- Their verification standards are unclear. Their 2022 fact sheet states “To help farmers create maximum value for their carbon assets, Truterra collaborates with enrolled farmers to collect needed information to create high quality carbon assets. This information includes periodic soil sampling and annual data reporting activities on the regenerative practices farmers are using. In future years, an independent verifier may periodically reach out to enrolled farmers to schedule meetings on program participation at a mutually convenient time. “

Important to Note:

- At this time they only compensate farmers for carbon removal within the last 3 years. Farmers who have been engaging in conservation practices for more than three years are not eligible for this offer but are encouraged to sign up to hear about future opportunities.
- Enrollment in this program does not affect eligibility for government funded programs; however, enrolled fields may not be enrolled in another carbon removal program.
- If a farmer is unsure whether they will be in business for the duration of the five-year

contract, carbon market participation can be attached to real estate parcels similar to the process for right-of-ways, conservation easements and other commitments to real estate parcels. This uncertainty will not directly affect their ability to participate in this program.

- Sign up for the 2022 program is closed, check back later for 2023 information.

Contact:

- There is no specific contact listed. Interested farms must fill out the sign up form.

Links:

[Sign Up Form](#)

[2022 Carbon Program Fact Sheet](#)

[2022 Carbon Program FAQ](#)

[Other FAQ sheet](#)

Family Forest Carbon Project (FFCP)

Website: <https://www.familyforestcarbon.org/>

Eligibility:

- Located within eligible project areas (All counties are eligible in NYS except Bronx County, Kings County, Nassau County, New York County, Queens County, Richmond County, Rockland County, Suffolk County, Westchester County).
- Own 30 or more acres of non-planted, naturally regenerating trees on your property.
- Have the legal right to harvest on your land.
- Be able to commit to a 20-year contract agreement.

Check your eligibility [here](#).

Eligible Practices:

There are currently two Forest Management Practices available to landowners in Massachusetts, New York and Vermont.

- *Grow Older Forests* requires landowners to only engage in sustainable harvesting, such as salvage harvesting for personal use like firewood. The payment rate for this practice is \$300/acre over the enrollment period.
- *Enhance Your Woodland* is designed for landowners who want to actively manage their forest land by thinning or gap harvesting. The payment rate for this practice is \$200/acre over the enrollment period.

Important to Note:

- This program is run by a partnership between the American Forest Foundation and the Nature Conservancy.

Links:

[Family Forest Foundation](#)

[Becoming an FFCP Approved Foresters](#)

[FAQ](#)

[Healthy Forests for Our Future: A Management Guide to Increase Carbon Storage in Northeast Forests](#)

Working Trees

Website: <https://www.workingtrees.com/>

Eligibility:

- Pays for carbon stored in trees in pasture
- Eligible lands must be in pasture for 10 years or longer
- **No acreage requirement**

Benefits for Participants:

The program will work directly with landowners to make the transition to silvopasture by:

1. Analyzing your farm's current operations
2. Connecting you with a technical service provider who can provide regionally-specific advice (as needed)
3. Finding private and government funding sources to cover the upfront cost of implementing silvopasture
4. Monitoring ongoing carbon storage, translating to a steady annual stream of revenue once established (often higher than cash rental rates)

Enrollment Process:

- Interested landowners need to first fill out this form:
<https://www.workingtrees.com/landanalysis>

Payment Rates:

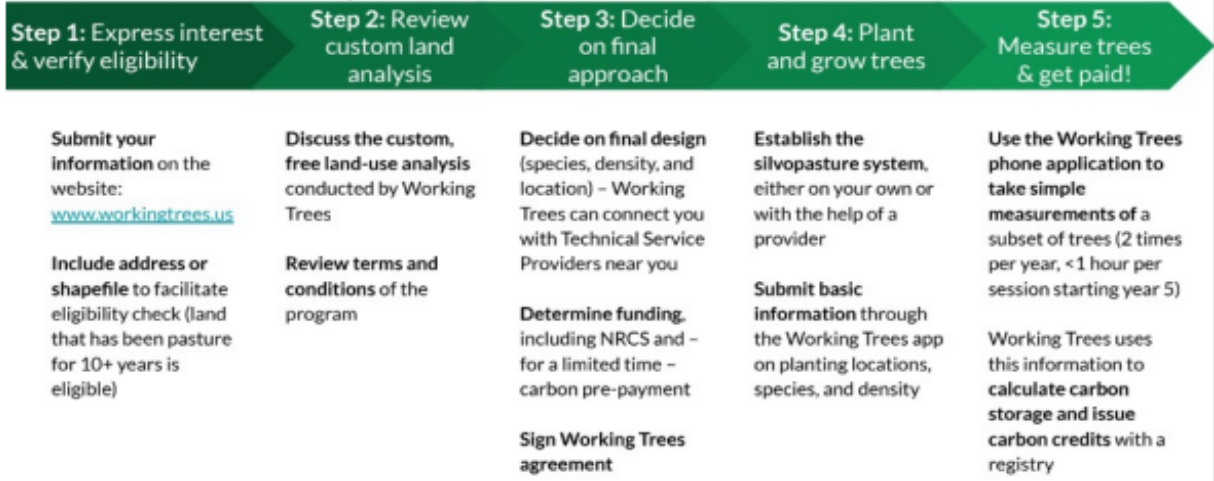
- Minimum price for carbon credit: \$20

Important to Note:

- Data is collected through smartphone and satellite imagery.

Working Trees

How does the process work?



Sourced from: *Forest Carbon Markets Webinar Presentation Slides*

Other Woodlands Opportunities

- [An Introduction to Forest Carbon Markets](#)
- [Forest Carbon Markets Webinar Presentation Slides](#)
- [Forests for the Bay](#): Provides a free report to landowners on ecosystem service benefits & conservation funding opportunities for forested land in the Chesapeake Bay watershed.
- [Forests for the Bay Sample Report](#)
- [Regenerate New York Forestry Cost Share Grant Program](#)
- [NY Master Forest Owner Program](#)
- [Northeast Forest Carbon Program](#)
- [Securing Northeast Forest Carbon Program](#)
- [Webinar](#) on Forest Carbon Developers & [Powerpoint Slides](#)

Other Resources

- [Carbon Market Questions to Ask Yourself Before Joining](#)
- [Questions a Farmer Should Ask Before Joining a Carbon/Ecosystem Service Program](#)
- [How to Grow and Sell Carbon Credits in US Agriculture](#)
- [How Do Data and Payments Flow Through Ag Carbon Programs?](#)
- [What Questions Should Farmers Ask About Selling Carbon Credits?](#)