

How to Utilize Carbon Credits



UNIVERSITY OF MINNESOTA EXTENSION

Natural Resources In Agricultural Landscapes

Natural Resources
Management and Utilization
Environment-00014

Farmers and landowners have an opportunity to earn payments for conservation tillage methods, or plantings of perennial grass and trees by selling carbon credits through the Chicago Climate Exchange (CCX), a voluntary but legally binding market established in 2003. The landowner will need to provide a proof of permanence for the practice such as a sustainable management plan for forests or a written statement of intent for grasses. The carbon credits are a path for landowners to help aid and abate global climate change through carbon sequestration. Check the current price by linking to www.chicagoclimatex.com.

Carbon sequestration is the term describing processes that remove carbon from the atmosphere. To help mitigate global warming and climate change, a variety of means of artificially capturing and storing carbon, as well as enhancing natural sequestration processes, are being explored. The three major natural carbon sinks are perennial vegetations including grasses, trees and other woody shrubs, oceans and soils. Landowners can manage forests and land to increase carbon storage.

Through photosynthesis, plants absorb carbon dioxide from the atmosphere, store the carbon in sugars, starch and cellulose, and release the oxygen into the atmosphere.

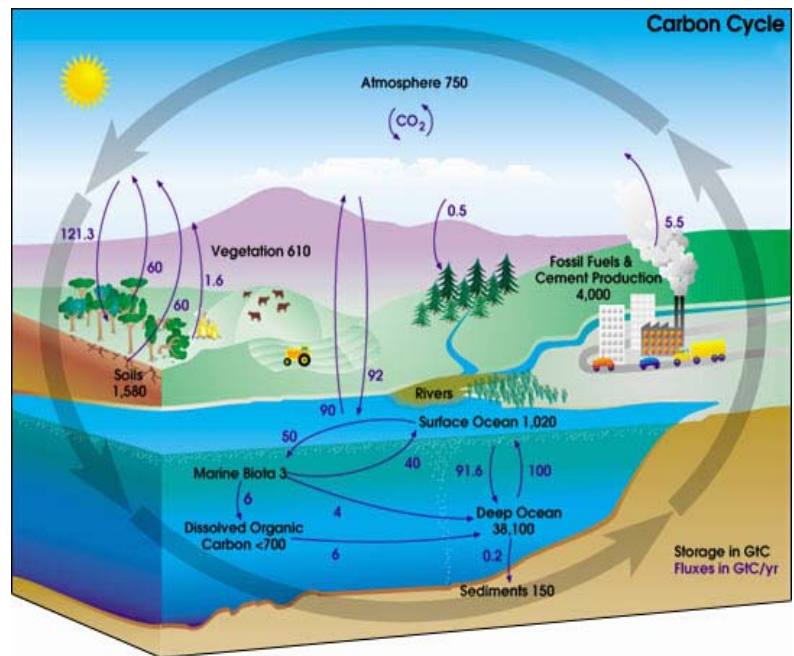
Carbon credit aggregation programs help reduce carbon dioxide emission levels in the atmosphere while building up our soil resources. In 2007, more than 5 million acres in 25 states had been enrolled in carbon credit programs.

In order to trade carbon credits, you have to be an aggregator and there are minimum asset requirements that many individuals would not qualify as an aggregator. Three major aggregators for the midwest include: Delta Carbon, AgraGate Climate Credits Corporation, and Farmers Union. We recommend contacting the aggregators for more details as there may be slight differences among aggregators' fees, contracts, etc.

Land that is eligible to be enrolled in the Carbon Credit Program must be capable of being cropped (forested acres are excluded), even though it currently may be in a harvested grass or forage crop. It must be designated as "cropland" on Farm Service Agency maps.

There are five ways to receive carbon credits:

1. A commitment to do conservation agriculture such as no-till or strip till practices (disturb less than 30% of soil surface) for a minimum of 5 years on crop land can receive credit for sequestering from 0.4 to 0.6 metric tons of carbon dioxide per acre per year. Alfalfa and clover crops are treated as no-till crops.
2. Crop land that was converted from crops to grass after January 1, 1999, can be enrolled and receive a credit of 0.4 to 1.0 metric ton of CO₂ per acre, this includes land in CRP, and other state or federal conservation programs (5 year contract).



3. Non-forested land planted to trees after January 1, 1990, can also receive carbon credits. The amount of credits earned per acre varies by location and the specie and age of trees planted. Tree plantings in the Upper Midwest range from 0.8 to 3 metric tons of CO₂ per acre. (15 year contract).
4. A managed forestry contract is also available for existing forests and woodlands. This land must have a forest management plan in place and must meet CCX approved sustainable forestry guidelines. (15 year contract).
5. Another method for livestock producers to sequester carbon is a methane digester that has been put into operation any time after 1999. Producers can receive 18.25 credits per metric ton of baseline methane destroyed per year.

Note the timelines for establishment of the three types of methods and then contact one of the aggregators to begin signing up. Land must stay in a carbon sequestering format through 2012 (unless contracts are extended). Payments are received the year after the carbon has been sequestered minus an 8-10% Aggregation Fee. The Chicago Climate Exchange places 20% of the registered credits in a reserve account at the Exchange. Thus, aggregators cannot sell 20% of the tons until the end of the contract, in this case 2012, to ensure against non-compliance activities such as unauthorized timber harvest or actions not compliant with the forest management plan. Farmers and landowners should contact an Aggregator to receive additional income for practices they may already be implementing on their land.

Chicago Climate Exchange—CCX

The Chicago Climate Exchange has shown to be the most reliable and influential carbon credit market that exists within the United States. Currently it is 100% voluntary, while other mandatory markets exist within Europe. The exchange was established in 2003 and just completed Phase 1 and has now entered Phase 2, which runs until 2010. The CCX is the world's first and North America's only voluntary, legally binding rules-based greenhouse gas emission reduction and trading system.

Possible annual returns from Carbon Credits:

(MT = metric tons of carbon dioxide per acre/per year)

(Price per metric ton is subject to change daily)

<u>No-Till or Strip Till</u>	<u>Grassland, Alfalfa or CRP</u>	<u>Woodlands</u>
100 A	100 A	100 A
0.6 MT (Southern MN)	1.0 MT	0.8 to 3 MT
0.4 MT (Central & Northern MN)		(Multiple factors determine MTs)
\$4.50 per metric ton (2/2008)	\$4.50 per metric ton	\$4.50 per metric ton
<i>Annual returns for each practice for 100 acres using the above factors...</i>		
\$180 to \$270	\$450	\$360 to \$1,350

Web Links

National Farmers Union

www.nfu.org

1-800-366-8331, Ext. 116

AgraGate Climate Credits Corporation

www.agragate.com

1-866-633-6758

Delta Carbon

www.deltacarbon.com

312-554-1909

Center for Integrated Natural Resources and Agricultural Management

www.cinram.umn.edu

A Landowners Guide to Carbon Credits

Chicago Climate Exchange

<http://www.chicagoclimatex.com/>

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