



Potential carbon revenues to rice growers

The California rice industry could gain an estimated \$10-\$20 million in revenues from carbon offsets by 2020, not including possible input cost savings. Nationwide, potential revenues to rice growers in this period are estimated at \$60-\$140 million. Actual revenues will depend on multiple factors including the number of participating rice growers, the market price of carbon offsets, and the quantity of emissions reduced per acre each year.

photo: California Rice Commission

American Carbon Registry

Carbon market opportunities for farmers

Carbon emission reductions are now a commodity that can be produced on farms to bring additional revenue.

Winrock International's non profit **American Carbon Registry (ACR)** is creating opportunities for farmers to participate in carbon markets. ACR recently published two *protocols* (instructions for specific projects) that allow farmers to produce carbon offsets through voluntary crop management changes that reduce greenhouse gases (GHGs).



Q: What are carbon offsets?

A: Carbon offsets, also called carbon credits or greenhouse gas (GHG) emission reductions, are environmental commodities created by avoiding or removing GHGs from the atmosphere. They are quantified in metric tons of carbon dioxide equivalent (CO₂e).

Q: How do I create carbon offsets on my farm?

A: Carbon offsets are created by changing farming practices to reduce GHG emissions. For example, GHGs from fertilizer can be reduced by changing fertilizer type, timing, placement and/or rate to improve nitrogen use efficiency. In the rice industry, offsets can be created by reducing flooded time, baling straw, and other practices.

Q: Will practice changes to reduce GHGs cause a decline in crop yields?

A: Studies have shown that GHG reduction practices can maintain or in some cases even increase yields. Current pilot projects on rice and tomato farms in California are working to demonstrate this. Generally, practices that create carbon revenues are likely to also save farmers money on fuel, fertilizer and other input costs.

Q: Are carbon offsets just more regulation in disguise?

A: No. Participation in any carbon offset market is voluntary for farmers.



Q: Which crops and farm practices will be eligible to generate carbon offsets?

A: To be eligible to sell offsets, projects must be conducted under an accepted protocol. ACR currently has protocols for reducing GHGs from fertilizer use for any US crop and for reducing methane emissions from rice production in California and the Mid-South. Projects must apply changes that go beyond existing crop production practices.

Q: Do I have to commit to making a practice change for longer than one growing season?

A: No. There is no minimum length for the practice changes. Each year farmers can decide whether or not to continue with the offset project.

Q: What does it cost to do a carbon project?

A: The most significant cost is for the required third-party verification, which ranges in cost depending on the project from about \$10k to \$20k initially, and less in subsequent years. The cost per farmer can be reduced by *aggregating* several fields or farms together to spread the fixed costs over more acres.

Q: Where can I sell my carbon offsets?

A: Carbon offsets can be sold in the voluntary market to corporations and organizations purchasing offsets to meet internal sustainability goals. Agriculture protocols are also being considered by California regulators and, if adopted, offsets may be eligible to be sold in the state's new regulated market, where GHG emitters like power plants and oil refineries are mandated to reduce or offset their emissions starting in 2013.

Q: What is the role of Winrock and ACR?

A: For over 25 years Winrock has been working with agriculture producer groups to enhance productivity and access new markets and technologies. As the first private voluntary carbon offset registry in the U.S., Winrock's ACR oversees the process of carbon offset project registration, independent verification and credit issuance on a public registry system:

www.americancarbonregistry.org

Q: Where can I get updates on carbon markets, California's cap-and-trade program and how I can participate?

A: You can contact Belinda Morris, ACR's California Director, at (916) 402-4141 or via email at bmorris@winrock.org.

Winrock International is a nonprofit organization that works with people in the United States and around the world to empower the disadvantaged, increase economic opportunity, and sustain natural resources.