Confronting the Issues

Agriculture Ecosystem Credit Markets and Farmers
PFB Policy Development
June 2021

Issue
U.S. farmers are at the forefront of climate-smart farming, and utilizing scientific solutions, technology and innovation to work to protect our land, air and water. U.S. agriculture contributes only 10 percent of overall greenhouse gas emissions (GHG). Today's farmers do more, with less – in fact, farmers would have needed 100 million more acres 30 years ago to match today's production levels. Agriculture can also play a role in offsetting emissions beyond the farm, and there is much potential opportunities for agriculture ecosystem credit markets as a value-added revenue stream for farmers. This paper explores credit markets, and some of the complexities the industry must address.

Questions
1. Are there more barriers to entry than those identified below? What are they? What are your main concerns, and how can they be overcome?
2. Pennsylvania is likely to have many farmers who would be considered early adopters. If you are an early adopter, how do you think a baseline should be established? What would incentivize you to implement additional practices ("additionality") to sell credits?
3. Farm Bureau already has substantial policy regarding climate change. As you read through the below policies, are there gaps in current policy addressing climate, sustainability and carbon markets? Other questions to consider:
    a) What changes (additions/deletions/edits) are needed to help Farm Bureau navigate the current climate discussions?
    b) Are there other gaps in policy which are needed to help address some of the broader concerns identified (privacy, business practices, etc.)?
    c) How detailed should Farm Bureau policy be in addressing these new and emerging issues?

Background
Government mandates to reduce greenhouse gas emissions and pledges by private companies to offset their own greenhouse gas emissions are driving the creation of sustainability credit markets. This creates a demand for carbon and other greenhouse gas emission-reducing credits, which are certifications that a greenhouse gas has been removed from the air through climate-smart farming practices, such as no-till, precision fertilizer application and cover crops. The reductions are usually verified by a certification organization as a marketable credit that can be bought and sold, just like any other agricultural commodity. With a larger ecosystem services market, farmers may potentially be able to "stack" credits for carbon sequestration, habitat preservation, water quality improvements and other environmental benefits.

Farmers can set up their own carbon projects or work with middlemen (sometimes called aggregators) that provide financing (for example, advance payments for no-till equipment) and buy the carbon credits from the farm to sell to their own customers. Consultants are also available to share know-how for getting carbon credits approved. Some agricultural supply companies are developing carbon programs to assist farmers with monetizing carbon.

While the idea and implementation of sustainability credits isn't new, there is a renewed focus on credit markets in recent months. Though there is potential for value-added income streams for farmers, this is truly an evolving market and there is much we don't know yet. Here are just a few things that add complexity to an already complex market opportunity:

- *Private Sustainability Markets* – These business transactions, from the farmer to the contract to the eventual credits and offsets, will take place in the private marketplace. However, there is much discussion about the role of government in this space and how much public oversight and support is needed. Additionally, balancing the ability of farmers to participate while offering some protections (legal, financial, data privacy, etc.) for farmers will be critical.

- *Contracts* – Enrolling in any ecosystem credit market is a contractual agreement between a farmer, landowner and other market participants. These are legal contracts where farmers commit to certain practices in exchange for payments or credits for ecosystem services. Currently, there is no standardized definition of what a carbon credit actually is, and so it is often defined within the contract. As part of a contract, farmers might need to share certain farm or soil data, agree to a certain time

commitment (as little as 10 years, or as many as a 100 years), be vested using their own credits over a period of time, and agree to waivers of certain legal rights.

- *Barriers to Entry* – Some of the barriers to entry include verification (certify, quantify and verify outcomes for credits) and associated costs, early-adopters (addressing farmers already engaging in one or more climate-smart practices) and additionality (offsets that would not have occurred without a market for carbon, i.e. a farmer already using no-till), farm size and regional differences in production, financial barriers, technical support (broadband, local consultants, etc.), and education. These issues must be addressed if agriculture ecosystem credit markets are to become a viable tool for farmers.

For more information, see AFBF *Market Intel* articles on carbon sequestration and agriculture ecosystem sustainability markets: https://www.fb.org/market-intel.

Farm Bureau Policy

In addition to the below policy, consider reviewing the following additional relevant policy, or lack thereof: 416 / Bonding and Bankruptcy, pages 148-149; 421 / Monopoly, pages 150-151; and 536 / Proprietary Data, pages 192-193.

AFBF, policy 503 / Climate Change, pgs. 170 - 171
1. Market-based incentives, such as pollutant credit trading, are preferable to government mandates.
2. We support:
2.1. Science-based, peer-reviewed research to determine the causes and impacts of global climate change;
2.2. A voluntary market-based carbon credit trading system that is not detrimental to other agricultural producers;
2.3. Compensation to farmers for planting crops or adopting farming practices that keep carbon in the soil or plant material;
2.4. Alternative energy sources, which will minimize atmospheric pollution;
2.5. Incentives to industries seeking to become more energy efficient or to reduce emissions of identifiable atmospheric pollution and the means of preventing it;
2.6. Market-based solutions, rather than federal or state emission limits, being used to achieve a reduction in greenhouse gas (GHG) emissions from any sources;
2.7. EPA's re-evaluation of burdensome emission control rules for farming practices, farm equipment, cotton gins, grain handling facilities, etc.;
2.8. The inclusion of the agricultural community as a full partner in the development of any policy, legislation or markets;
2.9. Research and development to better assist farmers in handling weather events and better adapting to weather conditions;
2.10. Initiatives, research and education that promote soil health, water quality and soil/water conservation, to be implemented on a voluntary basis;
2.11. Ongoing educational campaigns emphasizing the positive impact agriculture has on the climate;
2.12. Unbiased science-based research on climate change;
2.13. Scientific research to document the continuous improvement and beneficial impact of agricultural efforts designed to increase climate resilience, improve water quality and soil health, sequester more carbon in the soil and prevent soil erosion;
2.14. Incentivizing farmers to voluntarily improve on-farm energy efficiency;
2.15. Incentivizing improvements to the current electric grid;
2.16. Using a broad spectrum of power sources like renewables, biofuels and nuclear energy to help facilitate the market-derived cost of energy;
2.17. Federal climate change policy that reflects regional variations; and
2.18. When sources of greenhouse gasses are being evaluated, wildfires should be considered and compared as a source of greenhouse gas emissions as a means of supporting timber harvest and fuels reduction.

3. We oppose:
3.1. Climate change legislation that establishes mandatory cap-and-trade provisions;
3.2. Climate change legislation that is not fair, affordable or achievable;
3.3. Any law or regulation requiring reporting of any GHG emissions by an agriculture entity;
3.4. Any climate change legislation that would make America less competitive in the global marketplace and put undue costs on American agriculture, business and consumers;
3.5. Any climate change legislation until other countries meet or exceed U.S. requirements;
3.6. Mandatory restrictions to achieve reduced agricultural greenhouse gas emissions;
3.7. Any regulation of GHG by EPA;
3.8. Any attempt to regulate methane emissions from livestock under the Clean Air Act or any other legislative vehicle;
3.9. The imposition of standards on farm and ranch equipment and other non-highway use machinery;
3.10. Inclusion of the carbon impacts resulting from indirect land use changes in other countries in the carbon life cycle analysis of biofuels;
3.11. Taxes on carbon uses or emissions;
3.12. Any laws or policies that implicate agricultural activity of any kind as a cause for climate change without empirical evidence; and
3.13. A state-by-state patchwork of climate change policies.