

Conservation Innovation Grant Project

- Title: *Coordinating Public and Private Funding with a Science-Based and Stakeholder-Driven Pay-for-Performance Conservation Approach*
 - Two primary objectives:
 - Objective 1 – Design a PFP program for P loss reduction
 - Objective 2 – Develop recommendations for a stacked incentives approach (i.e. basket of incentives) to facilitate farm transformations on a larger scale
 - Project timeline: Hoping for December 2020
-

Formation of PFP Advisory Team

- Limited-duration, focused stakeholder input
 - Representation from farmers, state and federal agencies, UVM, LCBP, other NGOs
 - Intentional overlap with PES Working Group
 - 1st meeting was March 5th, 2020
-

Themes from PFP Advisory Team Meeting

Consensus emerged on the following themes/ideas:

- A. Get more farmers doing more conservation, ***but also*** reward farmers who are already performing well.
 - B. Using models is inevitable. Look at combination of whole-farm P balance and field-level P loss models.
 - C. If watershed-level WQ monitoring data is available, explore use of watershed bonus payment.
 - D. Do not let the perfect be the enemy of the good.
-

Next Steps on PFP Design

1. Participation from at least 3 farms for testing tools
 2. Draft set of potential baselines and program requirements
 3. Develop scenarios and test the tools
 - A. VT P Index
 - B. Farm-Prep
 - C. Cornell Nutrient Mass Balance Assessment Tool
 4. Calculate full economic costs of each scenario
 5. Calculate cost-effectiveness of each scenario
 6. Use info to assess various program designs for rewarding P loss performance and P mass balance (or combination)
-

Vermont Basket of Incentives

- An adequate supply of funding and financing necessary for implementing transformative change on the farm.
- Will require coordination across multiple sources to achieve a common goal:
 - Farms with greater financial resilience and enhanced production of ecosystem services.

Activities to date:

1. Infographic and vision statement.
-

Basket of Incentives - Infographic

Investing in Farm Support: Vermont Dairy Case Study



■ = Federal
 ■ = State (VT in this case study, but all states have options)
 ■ = Private—Existing
 ■ = Private—Needs to be developed/scaled

Grants and Income Streams Direct to Farmers

Federal Conservation Land Set Aside Programs
 Pay farmers annual income to put land into conservation.
 10-15 year income stream

Vermont Working Lands Enterprise Initiative Business Grants

Premium or Soil Health Performance Payments

Federal Funds pay for practices: Equip • CSP
 Pay for implementation of soil health practices.

Vermont State Programs
 FAP - up to \$8,000 per year
 Grassed Waterway and Filter Strip (GWFS)
 Pasture and Surface Water Fencing (PSWF)

Soil Carbon Initiative
 On farm savings from soil health reducing needs for inputs.

Agricultural Management Assistance
 Up to \$50,000 grants in 16 states for conservation and land management practices.

Vermont BMP Program

Ecosystem Services: Carbon, soil water
 • Indigo Ag/Terraton
 • Noble Foundation
 • Carbon Markets

45Q
 Ag sector Tax credits for carbon sequestration in soil.

Pay-for-Success Investment Funds

Loans and other Finance for Farmers

FSA Loans and Debt Forgiveness for Conservation

Vermont Working Landscape Enterprise Loans with VEDA
 Up to \$60,000 SPROUT deferred payment, loan interest loans for diversification and capital investment.

Low Interest loans secured by:
 Supply chain contracts
 Private investment funds

Clean Water State Revolving Fund (CWSRF)
 (Fed/State) partnership and 'Linked Deposit' low interest loan programs

Vermont New Funding via Legislative Act
 Act 64—provides for technical and financial assistance for farmers wishing implement regenerative practices.
 Act 83—fund ecosystem payments.
 Act 76—tax funded Water Quality Fund.

Green Bonds
 created by federal, state, private sector (brands, impact investors)

Dairy REIT

Debt buy out fund

Grants to Farm Support Agencies

USDA Rural Business Development Grants
 Up to \$500,000 to nonprofits, towns etc to support rural development. Could fund soil health technical assistance for farmers.

Vermont Working Lands Enterprise Initiative
 Service Provider grants and Business Development/Market Development Grants (Dairy sector)

Impact Investment Enterprise Funds



Basket of Incentives - Vision

Coordinating Public and Private Funding with a Science-Based and Stakeholder-Driven Pay-for-Performance Conservation Approach

Why Do We Need a 'Basket of Incentives'?

Background and Context:

The dairy farm sector has been the backbone of rural communities in Vermont and throughout the Northeast states for more than 100 years. Beyond this important heritage, Vermont's dairy farms drive economic activity in our rural communities. However, the farmgate price of milk has been below the cost of production for most dairy farms in Vermont over the past 5 years. The loss of dairy farms is not only a tragedy for the multi-generational farm families, it is a loss for our working landscape, our rural communities, and our economy.

Dairy farming is inextricably linked to the pressing environmental issues of water quality and climate change. Nutrient loss from agricultural land is one of the largest contributors to the eutrophication and impairments found in lakes, rivers and streams throughout the United States. Dairy farms have the ability to greatly reduce nutrient loading to rivers and lakes, as well as to sequester significant amounts of carbon (C) into the soil. Further, changes to feeding and farm management have the potential to greatly reduce methane and nitrous oxide emissions, both of which are powerful greenhouse gases (GHGs), to the atmosphere.

The intersection of the dairy farm financial crisis with the growing urgency to find solutions to the water quality and climate change problems provides a unique opportunity to feed two birds out of one hand. We need to create pathways for transformation in the dairy farm sector; transformation toward farms that have financial resilience and the ability to help correct these crucial environmental problems. Protecting water quality and reducing net GHG emissions are essential. Production systems that can do this while earning profits may not require on-going public investments or subsidies to produce these valuable ecosystem services. However, creating the pathways for widespread dairy farm transformation requires significant investment now. Planting the seeds of change now will yield an on-going stream of benefits into the future.

Farmers cannot always do the transformation on their own. It is in our collective best interest to invest in a healthy dairy farm sector and help interested farmers through the transformation process with coordinated funding and technical assistance. The costs of achieving this transformation are high and will require creative arrangements. The benefits of this transformation are even greater, and the cumulative cost of inaction could be massive.

The basis for the transformation in dairy production needs to focus on rapidly improving soil health, as this provides the agronomic productivity to support the farms' bottom line and reduce nutrient loss and net GHG emissions by increasing carbon draw down potential. This part of our project seeks ways to creatively combine resources, traditional and innovative, public and private, in a way that provides incentives and financing for dairy farm transformations that provide win-win-win solutions for farmers, rural communities, and our environment.

Primary Objective:

Create a clear pathway for farmers to an adequate supply of funding and financing necessary for implementing transformative change on the farm that will result in greater financial resilience and enhanced production of ecosystem services.

Vermont Basket of Incentives

Activities to date:

1. Infographic and vision statement
 2. Initial private sector interviews
 3. Roundtable discussion with agribusiness leaders at Green America's Regenerative Supply Working Group meeting
 4. Initial discussions with banking sector
 - A. Alignment of federal/state funding that pays for environmental outcomes; and/or
 - B. Commitment from environmental credit buyers
-

Next Steps on Basket of Incentives

1. Continue and complete interviews with relevant public and private entities to understand:
 - A. Current interest in investing in farm transformations;
 - B. Ways to reduce barriers to investment.
 2. Explore options for securing enhanced TA.
 3. Develop recommendations on structure for basket of incentives to maximize impact and environmental gain.
-

Contact Information

Email: Winsten.vt@gmail.com

Tel: (802) 343-3037
