

# Assessment of a Collaborative Milk Shed in Lamoille County, Vermont

## Progress report for ONE20-361

Project Type: Partnership

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Grant Recipient: Center for an Agricultural Economy

Region: Northeast

State: Vermont

Project Leader:

[Silene DeCiucies](#)

Center for an Agricultural Economy

## Project Information

### Summary:

This project will work with 8 dairy farms in Lamoille County to create a body of data that reflects the financial and practical state of a small milk shed and provides a catalyst for future collaboration and change. Our goal is to complete a cost of production for each farm (a powerful tool in itself), work through these data with the farmers to find areas of potential improvement in follow-up consulting, aggregate the data to gain a better understanding of the milkshed broadly, and foster communication between farmers to increase profitability across the region through collaboration and skill sharing. This “dairy triage” approach will force each farm to evaluate their enterprise as a business, and tighten operations, leaving fewer dollars on the table. Our team includes dairy financial, crop and soil, dairy feed, pasture, and marketing experts. The farms involved in the project range in size from 30 -100 cow milking herd and are all grass-based operations. This project could not come at a better time; the dairy industry is struggling in Vermont, especially for the small grass based farms that create our rural landscape and are more sustainable (water quality and soil quality wise) than their large and expanding counterparts. We need more robust data that can accurately inform both farmers and the general public about the current and future state of dairy in Vermont and we need farmers to start thinking more critically within the system that exists and perhaps beyond it.

### Project Objectives:

This project seeks assist a group of dairy farms in looking at their enterprise more critically from a financial perspective in order to increase their bottom line. This will mean different changes in production for different farms, but with the common goal of improving systems that exist to maximize profitability of the small grass based dairy farm. The project will create a body of data that farmers can use to better understand their operation as it compares to others. With this data, the team (of farmers and consultants) will be able to better communicate with stakeholders and

among themselves about the needs of a group of small farms and discuss their viability moving forward. An additional outcome that we would like to see is more communication between farmers in the milk shed about their production system, pricing, successes and failures. More of these conversations will help the group collectively to get the most out of the commodity system, and create stronger relationships moving forward. We hope that this project will provide a model that can be repeated across other milk sheds across the Northeast.

## Introduction:

Lamoille County is not suited to large dairy operations due to the hilly landscape and lack of large open expanses of farm land. Due to this fact, the majority of the dairy farms in this county are small and grass based and the farms and land have not been bought up by larger dairies. This group of farms represents an older tradition of farming in Vermont that has proven to be less profitable than their larger counterparts, but preserves a beautiful rural landscape and supports a more sustainable relationship with the land. The commodity market does not support the continuation of the small dairy farm, so farms need to work together to maximize their profit margins within this model, or assess alternatives moving forward.

Though financial analyses have not been completed for every farm, through informal conversations, it is clear that few to no farms are making a profit, and many are losing up to hundreds of dollars daily, not including debt service. Through work with small dairy farms in Lamoille and surrounding counties, it has become clear that more communication between farms concerning such topics as production systems and/or price received would be beneficial to the group of farms as a whole. The following is a recent example of how acutely communication with fellow local farmers can influence farm economics:

*Silene attended the UVM NMP course at Sterling with 2 farmers from Lamoille County this past winter, and informally asked the 2 farmers what their last milk check looked like because prices had been on the rise. Andrew Young (Young Dairy Farm) and Phillip Plante (Plante Farm) both ship conventional holstein milk to DFA, and through this conversation realized that one was getting paid 2 dollars more per hundred weight due to higher components. The farmer with the lower price had no idea that he was getting a lower price until that moment, and it started a dialogue about changing feed companies and getting an outside feed consultant on board. If that farm were their production style to gain higher components, that change could bring in an extra \$30,000 a year in profit assuming they could reach the components of the other farm.*

This instance proves that acute financial data from this proposed investigation as well as the platform for collaboration of small farms are equally important outcomes that could have large economic effects on this small milk shed. This project has the potential to make real quantifiable changes in a community of dairy farms, and this model could easily be extended beyond Lamoille County in the future.

## Cooperators

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# Research

## Materials and methods:

### 2020 activity:

The project has gotten off to a slow start, mostly because the PI and primary consultants have been extremely preoccupied with dairy COVID-19 assistance to clients. We are behind schedule, and are hoping on an extension for the project due to these extenuating circumstances. Thus far, the PI has met with all of the consultants, and connected with all of the farmers to brief them on the project. Silene (PI) has worked on her own with input from Rose Wilson to create the template for recording COP with the farmers and the template is ready for use. Preliminary farmer interviews have occurred with the Rooney Farm and Rankin Farm to work through kinks in the recording template, and most of their information has been collected. At this point, the project is waiting for Sarah Flack and Jen Miller to have time for the remaining farmer interviews. This timeframe has been identified as the first week in March which we realize is far behind schedule. Once the interviews begin again the project should move quite quickly. We apologize to SARE for the delays in this project. The methodology for this study is quite simple, and mostly boils down to long conversations with dairy producers. That being said, in past work with farmers, this method of information gathering seems to be the most thorough and successful for producing valuable data. Questionnaires will be created for initial interviews to collect qualitative data about farm enterprises, the data from these will be aggregated into a common (anonymous) document to better understand trends across the community. COP data will be collected by adapting the method used by NOFA-VT in their COP work, so that the data can be compared across a larger group of farms. Once each farm's financial information has been collected, these data can be compared to regional averages, and analyzed line by line to determine areas that each farm can work on to increase their bottom line. For example; some farms may spend large sums on bedding without realizing it, others may be losing dollars on milk quality or components and these areas could be addressed and worked on.

All farms will answer the same list of interview questions as far as their "qualitative data" and these will always remain anonymous to all involved. These answers will be coded by farm, but will primarily be used to write up general feelings across the county in the report, and less as specific accounts.

As far as financial data, each farm will determine their cost of production by inputting their data in a set spreadsheet that we will assist them with. For this I always use the Farm Viability Dairy and Livestock financials template and modify it with my own calculations to determine cost of production per cow, per cwt etc. Since these data will all be in the same format, with names removed and replaced with farm codes, the data will be easily compiled and for better comparison I will break the farms apart by cow numbers, conventional vs organic etc. As the study progresses, the goal is that farms will work with farms similar to themselves to increase their profit margin, and at this point it will be their choice as to whom they want to share their cost of production with.

Beyond each farm using their data and comparing it across similar production systems, the data will also be presented anonymously for the farmers to compare, and aggregated to gain a better understanding of trends across the milk shed broken into different production systems. Our n is quite small for this study, so depending on the degree of outliers, statistical analyses may or may not prove useful across the data. The more likely system will simply be laying out the data

anonymously (or non-anonymously depending on their preferences) for farmers to observe and learn from. Farmers will also be interviewed at the end of the study to record how this program worked for their operation and what they were able to gain from it. Net income before debt service (and adjusted for production volume) will be assessed at the beginning and end of the study to determine if any changes were made as a result of the study. These changes in farm financials over the course of the study will be compared using a two-way ANOVA analysis in R. Farms that change production style such as managing for increased butterfat or decreased SCC will be evaluated to determine the financial effect of those changes before and after the study. For the final publication, all data will be presented (quantitative and qualitative) for each farm as well as the aggregated data. The purpose of the study is to increase profitability on these small dairy farms, and also to determine if this method of farm outreach and technical assistance works for farmers and could be repeated elsewhere. In order address both of these goals, the financial data as well as overall farmer qualitative views are equally important and so will be well documented for use and future presentation.

## **Participation Summary**

### Education & Outreach Activities and Participation Summary

#### **PARTICIPATION SUMMARY:**

##### Education/outreach description:

The immediate results will be distributed to all of the farmers involved for use in their farm operations. The study will be written up as a report to be distributed to local dairy stakeholders, dairy farmers, service providers, and interested public via several channels. Center for an Agricultural Economy is already part of the Farm Viability Program, so this will easily be used as a distribution network to many service providers across the state. The Farm Viability Network is a hub for the majority of farm business planners in Vermont, so this network in itself will bring the report and the model to many farmers and farm financial experts in Vermont. CAE is also part of a project series with farm business planners in New Hampshire, which would enable the work to easily move beyond state borders. Laura Ginsberg from Agency of Ag is interested in the project, and would publish in Agriview for greater distribution to farmers and would promote the findings through other Agency dairy channels. Agency of Ag channels will also be accessed via the Conservation Districts, as Silene has close ties with the districts and Water Quality branches of the Agency of Ag. NOFA, Farm to Plate, and CAE will also be able to widely distribute to their farming and service provider networks. Proposals will be put forth to the NOFA, Grassfarmers, and Organic Dairy Producers Conferences for presentation opportunities, or at least avenues to distribute the report. Silene has hosted several agriculture-based events in the Lamoille County Community with large attendance, so based on the farmer's preferences an event may be suitable to present findings and distribute the reports to the local community.

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