

Considerations for Starting an On-Farm Dairy Processing Enterprise

Brianna Goodnow, Elizabeth Chaney, Julia Hofmeister, and Jeffrey Bewley, Animal and Food Sciences



With fluctuating milk prices, many dairy producers desire a more reliable, less cyclical income stream. At the same time, the local food movement has increased demand for homegrown foods. Throughout the country, dairy producers are considering on-farm processing to add value to the milk produced on their farms through bottled milk, cheese, or ice cream.

Generally, adding value to a product consists of transforming a product to an alternative form that will bring more recognition and income to the business. Through this process, consumers receive a high quality product, and dairy producers may receive a new revenue stream. In addition to being locally produced, these products often have a distinguishing marketing feature (such as organic, grass-fed, or natural).

The decision to enter this venture should not be taken lightly. Like many small businesses, the failure rate for dairy on-farm processing enterprises is high. While many producers are attracted to the potential for increased value of their milk, consumers have to actually purchase the product before it is realized. Moreover, successful operation of a dairy on-farm processing venture requires a completely different skill set than those needed to manage a herd of dairy cows.

Deciding to Start a Business

A business plan is one of the most difficult, but most important, parts of starting an on-farm processing enterprise. When dreaming up a new business, especially an on-farm dairy processing enterprise, excitement can take over, and it is easy to become overly optimistic and blind to potential pitfalls. A business plan helps organize the overwhelming amount of information and ideas into one document.

Importance of a Business Plan

- Puts plans in writing
- Helps set a timeline of practicality and priorities
- Documents goals and purposes
- Forces inclusion of often overlooked details
- Helps consider parts of an operation that may not have been thought about without a business plan

Business Plan Components

- Market and product research
- Cash flow and profitability projections
- Location plans
- Financial plans
- Business structure
- Specialty
- Future short- and long-term plans and goals

Multiple websites and organizations are available to assist in the writing or outlining of a business plan. Below are two helpful resources.

- U.S. Small Business Administration- This website outlines how to write a business plan, how to find a niche, workshops offered, and much more. <http://www.sba.gov/smallbusinessplanner/plan/write-a-businessplan/index.html>
- Agricultural Marketing Resource Center

The center's website provides sample plans, free online worksheets, and a host of business assessment,

planning, and management links from across the nation. http://www.agmrc.org/business_development/starting_a_business/

Funding a New Business

Funding an on-farm processing enterprise can be challenging. This reality check can prove to be a major obstacle for many. First, each business owner must realize that some internal financing is needed. Without equity, lending institutions will not be able to help.

It is extremely important that producers make estimations ahead of time for costs related to installation, management, and maintenance of a business venture. While developing these estimates, producers can seek assistance from professionals familiar with these enterprises. For equipment purchases and consulting fees, business owners should obtain multiple estimates. Once the estimates are established, individuals can get a true understanding of the cost requirements of the venture.

Bank loans, agricultural-based loans, and grants may be available to start a new business. Before providing funding, lending or granting agencies will want to see business plans, cash flow projections, break-even points, permit fees, expected sales, and costs for advertising, distribution, labor, and packaging.

Regulations to Consider

Before beginning an on-farm dairy processing enterprise, producers should consider the many manufacturing regulations and restrictions for a specific product. The Dairy Practices Council's Guideline for On-farm and Small-Scale Dairy Products Processing (DPC-90) (<http://www.dairypc.org/catalog/guidelines/haccp/on-farm-and-small-scale-dairy-products-processing>) is an excellent resource for all phases of establishing this business, including regulatory requirements.

Regulations exist at the national, state, and local levels. Different products require different production methods, and certain regulations are in place to protect consumer health and safety. Along with safety requirements, labeling requirements must also be considered. All dairy processing plants must adhere to state and national regulatory requirements, which vary by product. These regulations are important to consider when making a business plan. For example, the time, buildings, and equipment needed to bottle milk are not the same requirements to make aged cheese.

Regulations vary by state. When deciding to start an on-farm dairy processing enterprise, the producer must consider all the regulations and determine whether they are willing and able to comply with them. For more information on Kentucky regulations, individuals can

contact the Kentucky Milk Program at the following address or visit their website.

Kentucky Milk Program
Milk Safety Branch
275 East Main Street, HS1C-B
Frankfort, Ky. 40621
(502) 564-3340
Fax: (502) 564-8787

<http://chfs.ky.gov/dph/phps/On-Farm.htm>

Producer Education

With proper facilities and education, entrepreneurs can successfully produce value-added dairy products on-farm. Many individuals attend manufacturing classes to learn the necessary production skills. Classes cover all aspects of the production and marketing processes. They do require time and money to participate. An up-to-date list of many of these courses is available at <http://www.smalldairy.com/>.

Marketing

Having a great product does not mean someone necessarily wants to buy it. Marketing is essential to the success of an on-farm processing enterprise. Producers should examine exactly what (and who) their target market is to help determine the feasibility of a potential business endeavor. This includes answering questions such as:

- Are there any possible competitors in my target market area?
- Will I sell retail or wholesale?
- Who might be interested in my product?
- What geographical area do I want to target?
- What are consumers willing to pay for my product?

Market placement can either make or break a business. Some useful programs and publications for answering these questions include:

- PRIMER for Selecting New Enterprises for Your Farm: Through a series of worksheets, this publication examines the profitability, resources, information, marketing, enthusiasm, and risk of ideas. http://www.uky.edu/Ag/AgEcon/pubs/ext_aec/ext2000-13.pdf
- Selected Resources for Developing Value-Added Products in Kentucky: This document provides a wealth of information and resources. <http://www.uky.edu/Ag/CDBREC/varesources.pdf>
- The SCORE – Small Business Mentoring and Training: This program is a support network to learn essential small business management skills. <http://www.score.org/>

Determining the Market

Before pursuing and creating an on-farm dairy processing enterprise, estimating product demand through test markets is extremely beneficial. This is usually accomplished by having another established, value-added farmer sell a small number of items in their market to see how consumers respond. The following groups can help with market research and test marketing:

- The Kentucky Center for Agricultural and Rural Development (KCARD) consults with emerging or existing businesses on critical questions related to incorporating, financing, management, marketing, accounting, and legal concerns. KCARD is a valuable service that can be used to ensure a more secure market. <http://www.kcard.info/>
- The National Sustainable Agriculture Information Service also has detailed information on how to approach a potential market. Their publication, Keys to Success in Value-Added Agriculture, contains farmer testimonials. <http://attra.ncat.org/attra-pub/summaries/keystosuccess.html>
- The Kentucky Department of Agriculture (KDA) has a Division of Business Development which can help with market development. <http://www.kyagr.com/marketing/agribusiness/index.htm>

In a Penn State publication titled, Get More from Your Milk: Increasing Profit through Value-Added Products, (<http://pubs.cas.psu.edu/freepubs/pdfs/xa0019.pdf>), six steps are outlined for finding a target market:

1. Determine a potential target market (retail, groceries, restaurants, specialty food stores, a farm store, community supported agriculture, or the farmers market).
2. Look at the population data of the market area. The U.S. Census or the local chamber of commerce has this information.
3. Take the population and estimate what percentage might be interested in the product. Think about location boundaries (county or zip code), demographics, and price sensitivity (use income data as a benchmark).
4. Talk with managers of similar, potential markets to see if their customer patterns match.
5. Create an analysis for each target market to estimate total sales in a given time period and with different sales scenarios. This can be easily done in a spreadsheet.
6. Total the sales estimates and update spreadsheet documents as involvement with these markets change over time.

Product Development

Deciding what dairy product to manufacture is an important step to starting an on-farm dairy processing enterprise. Many different products can be considered. Criteria used to evaluate product choices include individual interests, available resources, product research, local competition, product demand, and other barriers. Selling a quality, marketable product is essential. Potential products, along with some advantages and disadvantages, include:

Cheeses

Advantages:

- Product is less perishable, making supply and demand imbalances less of an issue than with products with a shorter self-life
- Easy interaction with consumers
- Ability to catch any imperfections and control quality
- Its by-product whey can be used as animal feed

Disadvantages:

- Time required for some aged cheeses
- Art required to produce a good cheese is difficult to master. It may take years to produce a truly quality product.

Milk

Advantages:

- More personal connection with consumers
- Price maker rather than price taker
- Receive payment from cream and skim milk
- High-demand product

Disadvantages:

- High start-up costs (\$500,000+)
- Heavy demands on labor, time, and variable costs
- Quality control is essential
- Can be difficult to differentiate from commodity milk

Ice Cream

Advantages:

- Can be very profitable
- Can offset losses on a dairy enterprise at different times of the year
- Less capital and equipment are needed to start, particularly when using a purchased mix

Disadvantages:

- Somewhat seasonal product
- High input costs
- More challenges with distribution
- Product differentiation

Demand for Value-added Dairy Products

Consumer interest is usually the first signal that on-farm processing might be a path to pursue. Perception of a superior product and its unique story drives its benefits and value. Since these products have a higher value to consumers, they often also have a higher retail price. Attributes used to differentiate between products include organic, local, natural, grass-fed, pasteurization technique, kosher, allergen-free, and humane treatment.

More information on becoming a U.S. Department of Agriculture certified organic dairy is available through the Kentucky Department of Agriculture (<http://www.kyagr.com/marketing/plantmktg/organic/>). Although the USDA does not have a certification system for defining a product as natural, those that are free of hormones, antibiotics, and beta antagonists are considered natural. Certification systems for local products, such as KDA's Kentucky Proud (<http://www.kyproud.com/>) also exist.

Consumer demand for higher quality food, specialty foods, and health food products are market drivers. Trends show that people continue to buy more specialty products relative to mainstream products in every market category. Fluid milk trends show the market for organic milk is growing, although it is a very small percentage of total milk sales. Other characteristics are also attractive to consumers such as rBST (recombinant bovine somatotropin) free.

Specialty cheeses have seen a significant market boom in the last decade due to increased publicity for cheeses through restaurants that use them to add value to individual menu items. The media also has increased interest in specialty cheeses through travel, food, and cooking programs.

Ice cream has a wide array of target markets and characteristics because two large consumer interests are represented: healthy desserts and indulgence desserts.

Selling and Distribution

How a product will reach consumers is important to consider before beginning to manufacture it. The target market will dictate distribution channels. Many market opportunities are available for value-added dairy products. However, getting into these markets is not as simple as it may seem. Some options include:

Farmers Markets

Many farmers markets exist all around the country. A directory of Kentucky farmers markets is available at the KDA website <http://www.kyagr.com/marketing/farmmarket/2012FarmersMarketDirectory.htm>. Entry and space rental fees vary among markets.

Retail

Local, value-added products have a small, but strong niche market in many specialty grocery stores and some regional and national grocery chains. Larger markets require larger quantities of a product, so cooperative efforts among a few dairies are sometimes beneficial in pursuing this kind of market.

On-farm Sales

Setting up a farm store or stand and offering on-farm sales is another option. On-farm sales are often coupled with agritourism, and farms often offer lunch options, farm tours, and sell a small variety of products in the farm store. Populations, family income, and road traffic near the potential distribution point are important factors to consider in the decision to start an on-farm store. KDA has a Division of Agritourism that has information related to establishing a farm store or stand. It is available online at <http://www.kyagr.com/marketing/agritourism/index.htm>.

Community Supported Agriculture (CSA)

In a CSA program, individuals contract with a farmer to receive a weekly or bi-weekly basket of products from the farmer for a fixed price during the growing season. Many farmers have expanded their CSAs to include value-added products like dairy, eggs, and meat, in order to add more value to the baskets and to carry the market through the winter. As a result, an existing CSA program may be a viable market for some. The locations of existing CSAs are available through <http://www.localharvest.org>.

Institutional Buying

This involves direct contracts to sell products to an institution, such as a school, university, hospital, nursing home, business, or restaurant. This type of market may be seen as a more secure situation, because of contracts.

Agritourism

According to the Kentucky Farms Are Fun website (<http://www.kentuckyfarmsarefun.com/>), agritourism is defined as, "The act of visiting a working farm or any agricultural, horticultural, or agribusiness operation for the purpose of enjoyment, education, or active involvement in the activities of the farm or operation."

Many farms only do agritourism, while others combine it with an on-farm processing venture. Agritourism is an excellent way to educate the public on the importance of agriculture and involves considerable public interaction, people skills, and relationship building skills. Some events may involve school tours, individual tours, or community events. Establishing this relation-

ship with a community helps to increase rural economic development dollars and develop community support for agriculture.

Agritourism can be a very profitable, fulfilling addition to a farm when properly managed and planned. Farms should be presentable to the public. When bringing the public onto a farm, the correct insurance and liability coverage is important. Interacting with the community, the insurance company, and even other agritourism businesses is key and very helpful in planning one's operation.

Completing the Farm Work

Many farmers forget an important fact; they cannot do everything by themselves. Paid labor is inevitable to ensure that all of the work is completed. Therefore, human resources management is another important aspect of managing an on-farm processing business.

Employees are the most important assets of a business. Each employee's strengths and weaknesses should be considered. When a customer walks into a business, one of the first things they notice is the employees. Each employee must know and understand the story of the farm and the product, and be able to effectively communicate to customers.

Like all jobs, employees should be compensated for their work, and this is no different for farm-related work. Most farmers are used to working for nothing and having their family do the same. In a business, a farmer or owner always should pay themselves for their labor. This helps keep the amount of labor actually put into the business in perspective.

Public Interaction

When owning and operating a business, working with the public is inevitable. Business owners must interact and effectively communicate with customers, employees, suppliers, or investors. For some farmers, this can be a favorite part of owning a business, and for others, it can be the worst. Most farmers do not have to work with people on a daily basis, and this can be a huge adjustment for them.

Representing the product is very important and critical when working with customers. When selling a product, entrepreneurs must know the type of consumer the product attracts. Be prepared to answer questions about the product's origins, production process, attributes, and strengths and weaknesses compared to competitors. When striving to make a sale, it is crucial for business owners and their employees to establish a relationship

with customers and make them feel that they need the product. When deciding on marketing strategies, entrepreneurs should capitalize on a product's attributes and stress those to consumers.

Dealing with objections is also another huge part of working with the public. Unhappy customers can come along for many different reasons. Dealing with and understanding how to communicate with these customers is just a part of business. Remember that the only bad objection is the one that is not heard. Objections should be considered as constructive criticism. Producers should try to understand the objection and change the person's perspective of the product. Objections may not only come from unhappy customers. They can be from customers who feel they do not need the product, may not have the money, or simply are not interested. In each of these situations, a seller should work toward persuading the customer, but know when to quit and always avoid arguments.

When owning and operating a business, an owner will work very closely with their suppliers. These suppliers are responsible for the inputs that go into making a product. Owners should have open lines of communication with suppliers at all times. Suppliers should be treated well for their contribution to the business.

Working with the public can be as simple as knowing how to effectively communicate. One should always be confident when talking to a customer, supplier, or employee. Business owners should value everyone who plays a role in the production and selling of a product.

Conclusions

On-farm dairy processing can be an exciting and rewarding adventure. However, entering this business should not be taken lightly. To properly and effectively produce different products, one must first decide the best-suited product for their business. The producer also must be well-informed of the inputs and outputs involved. Not only must one evaluate the costs and benefits, but they must consider the product's impact on consumers, producers, suppliers, and employees.

To have an effective business, one must have a comprehensive business plan that includes future goals. This business plan should include a market analysis.

Owners must have good communication with employees, consumers, suppliers, and other farmers. Effective communicating will increase product demand.