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VERMONT MILLED GRAIN PRODUCTS LOCAL MARKET STUDY REPORT
EXECUTIVE SUMMARY

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Northern Grain Growers Association (NGGA) was established in 2008 with its mission to encourage and support the production, processing, and marketing of grains in Vermont and the surrounding regions.

The purpose of NGGA is to:
1. Provide education and outreach to beginning and established farmers.
2. Provide networking opportunities to farmers through newsletters and websites.
3. Develop applied on-farm research that address the questions of the grain growing community.
4. Provide mechanisms for seed exchange and improvement among farms.
5. Develop plans for increased grain processing infrastructure in the region.

NGGA is a farmer-run organization with the following individuals currently serving as board members:

Brent Beidler - President
Jack Lazor - Vice President
Heather Darby - Treasurer
Ken VanHasinga - Secretary
Ben Gleason
Hilton Dier
Mike Thresher

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VT MILLED GRAIN PRODUCTS LOCAL MARKET STUDY REPORT BY WILLIAM ROBB
EXECUTIVE SUMMARY

OVERVIEW

This study was designed to provide a picture of the broad market for flours, cornmeal, and other milled grain products across the state. In providing estimates of the types and amounts of locally grown and milled grain products that could be sold, this report intends to support the redevelopment of the grain sector of the agricultural economy in Vermont.

The study was divided into three sections. The primary focus of the study was on small retail country stores, mid-size groceries, and general stores across the state, with data collected in an online survey. A second portion of this study focused on cooperatives, using semi-structured interviews. The third portion of the market study focused on bakeries. There are a few large-scale commercial bakeries that distribute regionally, a handful of mid-sized commercial and artisanal bakeries, and a large number of small bakery/café’s that operate either on their own or in conjunction with a larger store or restaurant. A subset of these were interviewed by phone.

METHODS

Survey questions for small retail stores were designed to provide a picture of the distribution network supplying stores, the product selection process, and product characteristic requirements. A sample of 414 small retail establishments was generated from a complete list of retail stores developed from commercial vendors and the Vermont Association of Independent Country Stores. Owners were contacted via phone. Of these, 201 (49%) were eligible for the study, meaning the store sold flours and other grain products. Eligible store owners were then asked to complete a survey either on the web or via mail. Data was collected from 48 stores, for a response rate of 24%. Percentage estimates based on these data have a confidence interval of +/-10%. Data was collected from 4 cooperatives. Finally, data was collected through semi-structured phone interviews of 10 primarily large commercial bakers.
GENERAL FINDINGS

SMALL RETAIL STORE RESULTS

Potential for Local Grain Purchases

Overall most small retail stores were interested in purchasing Vermont grown grains!
- 67% of stores were interested in information about Vermont-grown grain products.
- 45% of stores were willing to work with NGGA to bring grain products into their store.

Most of the stores surveyed already sold grain products that could be provided locally:
91% sell wheat flour; 64% sell 5-lb packages of white flour; 26% sell 5-lb packages of whole wheat flour
88% sell oats; 76% sell cornmeal
83% sell various baking mixes (pancake, muffin, cake, Bisquick®)

Why Purchase Local Grains?

Many stores indicated that they currently purchase Vermont-made products. Interestingly, stores indicated that 70% of store product selection is based on customer request and 52% based on whether the product was Vermont-made.

The primary benefits of locally milled grain products were community-related (Figure 1).

63 to 73% of stores indicated selling local grains would result in the following “strong benefits:”
- aid to the local economy
- good community relations
- known growers/producers

47 to 70% of stores listed “strong benefits” related to the food itself:
- fresher food
- higher quality food
- safer food

Figure 1. Small retail survey responses for the benefits of purchasing from local growers.
GENERAL FINDINGS

**Barriers to Purchasing Local Grains**

Several barriers to purchasing local grains were identified by retail stores (Figure 2).
- Over 50% of stores identified lack of availability and product cost as strong barriers
- Over 20% of stores indicated reliability and consistency of product were strong barriers
- Identifying local sources and dealing with more vendors were also barriers

![Figure 2. Small retail survey responses for the barriers to purchasing from local growers.](image-url)
Distribution was identified as a barrier to increasing local grain products in retail stores and specifically cooperatives. Currently, 86% of food products are obtained through a wholesaler (Figure 3).

Interestingly, over 50% of the stores use direct store delivery and direct purchasing to procure local products. However, less than 10% of products are purchased in this manner.

Cooperatives specifically stated they appreciated the direct connection with producers but have a hard time managing paperwork and logistics associated with so many vendors.

Figure 3. Small retail store product sourcing methods.

**Potential Sales for Local Grain Products**

There is a potential to sell local grains to retail stores including cooperatives. However, the volume may be somewhat limited since these outlets do not sell a significant volume of grain products on a yearly basis. Based on the survey data, we projected monthly sales by small retailers:

- 20,000 to 30,000 5-lb packages of white flour
- 5,000 to 10,000 1-lb boxes of cornmeal
- 50,000 to 60,000 packages of baking mix
- 20,000 to 30,000 1-lb packages of rolled oats

Based on these volumes a local mill would need to produce approximately 900 tons of white flour per year. This translates into roughly 1800 acres of wheat harvest per season in Vermont. The acreage of wheat required would increase based on needs for other products such as whole wheat flour and ingredients for baking mixes.
COMMERCIAL BAKERY RESULTS

Potential for Local Grain Purchases

Bakers indicated that a relationship with the grower and/or miller is an integral part of their definition of “local.” “If it is called local,” said one respondent, “I want to know the persons who grew and milled the grain, and don’t want to have to get on a plane to go see them. Knowing them is huge part of the whole deal.”

Bakers were interested in local grain but had several concerns.

The two main concerns regarding working with locally grown and milled flours were price and consistency.

Higher volume bakers are very price sensitive, and are accustomed to getting discounts for volume – one baker mentioned getting a 10–12% discount on pallet volumes.

Flour quality is also very important to bakers. The higher volume bakers, in particular, are not set up to frequently adjust mixes. They often responded that they “like the consistency of the current products” or that local products’ “lack of consistent availability affects both our production process and the finished product.”

Potential Sales for Local Grain Products

There is potential to increase the amount of local grain used at bakeries in Vermont. The projected total usage of flour per month by Vermont bakeries:
- 816,000 pounds of white flour
- 53,000 pounds of whole-wheat flour

Based on these volumes a local mill would need to produce approximately 5,214 tons of flour per year. This translates into roughly 10,500 acres of wheat harvest per season in Vermont. The acreage of wheat required would obviously be based on flour extraction rate, whole wheat or white flour products, and overall quality on a yearly basis.

CHALLENGES

- There is no commercial flour or other food-grade mill in Vermont. The largest potential sales would be from white flour and this product is not currently processed in Vermont.

- Availability and marketing of grain products is limited. There are currently few product lines available as bulk, packaged, or value-added to be distributed to the markets outlined in the study.

- Processing infrastructure for development of oats or other hulled products (barley and spelt) are not available in Vermont. A significant quantity of potential sales resides in oat products.

- Stone-milled flours have a limited shelf life. Whole grain flours have the whole germ intact, which increases the health benefits to the consumer, but also makes the flour a perishable product that will go rancid if left for too long on the store shelf.

- There is a need for sufficient high quality grain storage. Adequate storage could allow producers to hold supply throughout the year, ensuring a constant supply to retailers, cooperatives, and bakeries.

- Distribution of local products needs to be improved. This survey found that small distributors, like Capital Candy, are willing to entertain the possibility of delivering local grain products to area retailers. There is also potential to work with the Neighboring Food Cooperative Association to develop a Vermont Coop Distribution route. Further, distributors like Hillcrest Distributors are currently delivering local flours to Vermont bakers from Champlain Valley Milling. All of these ideas could be explored and expanded upon to increase distribution of Vermont grain products.

- Grain quality in Vermont often lacks consistency due to local weather constraints as well as processing constraints. Further markets could be developed if consistent flour products were developed and marketed. To some extent this could be accomplished at a commercial mill.

- There is still a need to provide education and outreach to consumers about the benefits of purchasing locally produced grains and flours.
OPPORTUNITIES/RECOMMENDATIONS

- A feasibility study should be conducted to determine if a commercial flour mill could be a viable business in Vermont.
- Co-packing opportunities should be explored with other existing regional grain facilities. For example oats processing and white flour milling exist just north of VT in Quebec.
- Investment in the aforementioned infrastructure and analysis would build markets and increase the number of farms producing grains in Vermont.
- Advertising and marketing technical expertise should be made available to assist growers, millers and food entrepreneurs in developing and labeling locally grown Vermont grain products that tells the story of a place.
- Food science expertise and further collaborative efforts between growers, chefs, bakers, and other food industry experts should be implemented to develop value-added grain products such as ready mixes (muffin, pancakes, cake mixes).
- Increased investment in agronomic and processing technical expertise will assist producers with developing high yield and quality products.
- Investigation of potential grain producer cooperatives will help determine if barriers such as distribution and storage can be overcome.
- Education of the consumers and other end-users would help to overcome perceived versus actual quality barriers associated with locally produced grains.