

**Canadian Organic Growers  
(Gulf Islands Chapter) Island Natural Growers**

## **Growing Up Organic**

# **Farm Produce Value-Added Food Processing Feasibility Study**

**March 2009**

**Prepared by**

**Patricia Reichert**

# **TABLE OF CONTENTS**

## **EXECUTIVE SUMMARY**

<b>1. INTRODUCTION.....</b>	<b>2</b>
<b>2. OBJECTIVES OF THE STUDY.....</b>	<b>2</b>
<b>3. COMMUNITY CONTEXT.....</b>	<b>.2</b>
<b>Agriculture</b>	
<b>Food Processing</b>	
<b>Food Culture</b>	
<b>4. OPPORTUNITIES and OBSTACLES.....</b>	<b>3</b>
<b>5. RISK MANAGEMENT.....</b>	<b>5</b>
<b>6. PROPOSED OPTION.....</b>	<b>6</b>
<b>Considerations</b>	
<b>Developing the business</b>	
<b>Incubating Start-Up</b>	
<b>Suggested Product Development</b>	
<b>Processing Team</b>	
<b>Facility</b>	
<b>Marketing</b>	
<b>Example of Product Estimated Costs and Net Revenue</b>	
<b>Cash Flow</b>	
<b>7. CONCLUSION.....</b>	<b>9</b>

## EXECUTIVE SUMMARY

The purpose of this study is to assess the feasibility of starting a food processing business that would add value to produce grown by Salt Spring Island farmers. The objectives of such a business would be to increase farm income, to diversify and make the best use of locally grown produce and to contribute to the development of a stronger, more sustainable local food system.

The study has been conducted within the context of the Growing Up Organic project on Salt Spring Island. The project is managed by Island Natural Growers, the Gulf Islands chapter of Canadian Organic Growers. It is funded by Canadian Organic Growers with support from the Organic Sector Development Program. This past year Growing Up Organic organised the first regular sales of produce from local farms to two institutions on the island: the Gulf Islands Secondary School and the Meadowbrook Seniors Residence.

The study outlines the opportunities and obstacles associated with starting a local food processing venture. It notes, for example, that the demand for local food far outweighs the supply and that produce production on Salt Spring Island is growing. More than 30 farmers have been participating in Growing Up Organic through its first year and they are set to increase production in the upcoming season. The vision for the community in the recently revised Official Community Plan and the implementation of the Area Farm Plan provide a strong foundation for developing and sustaining this kind of local food venture. At the same time there are obstacles that cannot be underestimated. One of which is the lack of funding needed to capitalize a food processing business.

The section on risk management presents a technical assessment of the main risks affecting feasibility and suggests ways of mitigating the risks through specific management actions. The study points out that a central risk is ensuring a dependable supply of the farm produce inputs. In response, it advises that feasibility hinges on managing the scale of processing so that production does not outstrip the supply of inputs needed to create a unique line of products. It also advises that several key factors need to be taken into account in managing the risks. For example:

- Because of high farming costs on Salt Spring and because of the low supply/high demand equation, the net margins on processed products are going to be very sensitive to the price of inputs. Whereas most food processing businesses seek out the lowest priced inputs, the cost of inputs in this venture will be tied entirely to the local food market.
- A central objective is to increase farm incomes, not undercut the price of inputs. At the same time, competing in the processed food marketplace (even on Salt Spring) is bumping up against grossly under-priced processed food choices. Price competitiveness is going to have to be carefully managed.
- Feasibility hinges to some extent on community engagement in all kinds of local food choices, including locally processed products.

The study proposes a way of moving forward. All things considered it suggests that a collaborative venture makes more sense than having many individual farms doing their own processing. And it suggests starting slowly, developing and testing products using an incubator approach. Section 6 of the study describes how this approach could be organised. One of the key elements it proposes is tapping into Growing Up Organic to provide the coordination and organizational structure, at least for the start-up and demonstration phase of the venture.

## **1. INTRODUCTION**

This study examines the feasibility of starting a food processing business that would add value to produce grown by Salt Spring Island farmers. It considers the opportunities, obstacles and risks that affect the feasibility of such a business. It proposes a start-up option that mitigates the risks and takes advantage of the organizational structure which is being built by Growing Up Organic to incubate the business.

The study has been conducted within the context of the Growing Up Organic project on Salt Spring Island. The project is managed by Island Natural Growers, the Gulf Islands chapter of Canadian Organic Growers. It is funded by Canadian Organic Growers with support from the Organic Sector Development Program.

## **2. OBJECTIVES OF THE STUDY**

This study assesses feasibility relative to accomplishing the following objectives:

- To increase farm incomes.
- To produce fine quality processed foods using locally grown ingredients.
- To use the second grade produce that is a regular part of every growing season, thus increasing the value of produce that has very low or no value as is at the market.
- To provide an option for using crops that are second grade due to exceptional circumstances/crop failures, thus reducing risk for produce farmers.
- To demonstrate food processing options using local inputs, at a small but commercial scale.
- To increase the availability of locally produced food in this community.
- To increase food security on Salt Spring Island.

## **3. COMMUNITY CONTEXT**

### **Agriculture**

Agriculture on Salt Spring Island is set to grow. The vision for this growth is expressed in the 2008 revised Official Community Plan and in the Salt Spring Island Area Farm Plan (2008).

Almost all of the more than 13,000 acres of farmland on Salt Spring are not in food production. In fact, only about 1% of the 9,600 acres of active farmland and less than 1% of farmland within the Agriculture Land Reserve on Salt Spring are currently in produce production. The Area Farm Plan presents 25 recommendations aimed at increasing agricultural production, access to farmland and food security on Salt Spring.

Implementation of the Area Farm Plan is in the early stages. Two concrete actions that have been taken so far are the establishment of the Salt Spring Island Agriculture Alliance and the creation of the Salt Spring Island Farmland Trust. Value-added processing is consistent with the Area Farm Plan recommendation to develop agriculture infrastructure on Salt Spring Island.

### **Food Processing**

Food processing can be a key element in building a stronger agricultural base and a stronger local food system. The need for more small scale food processing in the region has been identified by the Capital Region Food and Agriculture Roundtable (Reichert, CR-FAIR, March 2007).

Currently, only a very small number and volume of Salt Spring Island agricultural products are commercially processed. The main ones are: i) certified organic Jersey milk which is processed into certified organic cheeses; and ii) apples which are processed into apple juice and dried apple chips. The cheeses are produced on and by one farm on the island as the farm's primary commercial activity. The apple processing is done by a number of farmers as a supplementary activity.

A small quantity of herbs and other farm-grown products are processed at a very small scale on various farms and sold at the Saturday Market. The commercial volume of these products is negligible.

### **Food Culture**

Salt Spring Island has an active food culture. There are many restaurants, chefs and eaters who are working to increase availability and accessibility of good quality food. Local food is a key ingredient in this effort.

Despite the importance of food and food security in the community at large, very little of the food that is eaten on the island is grown here. At present local farmers are producing only 4% of the meat and produce that Salt Spring residents are purchasing through the course of a year. Some increase in produce production has been occurring in the past couple of years. Unfortunately, there is a noticeable decrease in meat production since the reduction in the availability of slaughtering facilities and the introduction of higher slaughtering and feed costs.

The demand for local food far exceeds the supply. With only one exception, commercial produce farmers are effectively selling all of the fruits and vegetables they grow to Salt Springers. Distribution is mostly through farmers markets and at the farm gate. The exception is apples; more apples are grown here than are being used and a small volume is exported to off-island buyers.

At present only a very small amount of produce and meat is available for sale to restaurants and the local grocers. This past year Growing Up Organic organised the first regular sales of produce to two institutions on the island; the Gulf Islands Secondary School and the Meadowbrook Seniors Residence.

## **4. OPPORTUNITIES AND OBSTACLES**

At the best of times, it is challenging to predict all the factors that could affect the feasibility of starting a food processing business that would add value to produce grown by Salt Spring Island farmers. Margins are characteristically small in food businesses and large international corporations dominate regulatory regimes and the market place.

Even more challenging is predicting the interplay of the factors in the current dynamic economic environment. This is also a time, however, when what is usually an obstacle can become an opportunity. For example: 1) interest rates are lower if a loan is required; and 2) there are some indications that the global economic situation is sharpening people's focus on the need for stronger and sustainable community-based food systems.

### **Opportunities**

- The demand for local food of all kinds in this region currently far outstrips the supply. In market terms the difference between supply and demand is so large as to be immeasurable.

This means that a line of locally processed food products would compete very well in the local marketplace.

- If production did exceed local demand, the Salt Spring brand has proven to have currency beyond the local community.
- The current global economic situation appears to be affecting local food in a positive way. Although the effects are in flux, it appears that in this community many people are associating local food with good value for the money they have to spend on food.
- There is a lot of farmland on Salt Spring that has the potential to be brought into food production, thus increasing the variety and availability of inputs for processing over the short, medium and long-term.
- Involvement in Growing Up Organic started with six farmers and grew to more than 30 within the first few months. The majority have indicated that they will be increasing production in the upcoming season and over time. Some farmers are returning to growing produce because Growing Up Organic provides them with a marketing and distribution system.
- The main competition for locally processed food is from off-island sources, most of which are not even within the region.
- Food processing will diversify uses for local produce.
- Food processing could make use of some produce that could not otherwise be sold (e.g. late season green tomatoes, oversized zucchini, imperfect carrots).
- There are chefs within the community who have the skills to oversee the preparation of processed food products.
- The high school cook certificate program may be a source of apprenticeship labour.
- There are several key community-based organizations that could support and promote a local food processing business: SSI Agriculture Alliance, Island Natural Growers, the Farmers Institute, Chamber of Commerce.
- The financial institutions on Salt Spring are generally supportive of this business idea. Two of three have indicated that they don't see any unusual financing obstacles for such a venture.
- The newly revised Official Community Plan cites food security as an important part of the community vision.
- The Islands Trust Local Trust Committee supports local food processing in principle.
- Growing Up Organic is providing a positive and successful framework for supporting the development of a value-added food processing venture.

### **Obstacles**

- There may be difficulty finding an appropriate food processing facility on Salt Spring.
- Capital is not readily available to fund or secure funding for the establishment of a food processing facility or to purchase food processing equipment.
- There is a lack of start-up funding.
- Total dependence upon local produce inputs may be a problem. Generally speaking, food processing businesses establish the product line and then source the inputs from wherever they are available.
- There is a lack of industrially-zone land for setting up a processing facility.

## 5. RISK MANAGEMENT

### Goal

To develop a *profitable and sustainable* food processing business that is based on farm inputs from Salt Spring Island.

### Managing the Risks

Feasibility depends upon putting in place a plan for mitigating the risks that could affect the short or long-term viability of processing local farm produce at a commercial scale. The plan must demonstrate the capacity to respond to both the obstacles and opportunities in a timely manner with a good measure of common sense. Following is a technical assessment of the most significant risks.

<b>Risks</b>	<b>Management Action</b>
1. Total dependence upon locally grown produce inputs. If there is insufficient produce from Salt Spring farms it would adversely affect the dependability of the production line.	Guarantee sufficient local inputs by buying produce from many farmers rather than only one or two. Develop a strong line up of products based on basic produce that has a good track record over many years and long seasonal availability. Introduce the products in the product line, <i>gradually</i> , at a pace that is totally consistent with production volumes.
2. Variability in planting that makes the supply of produce inputs unpredictable. In small scale organic agriculture, diversity and rotation are essential practices.	Establish a base of farmers who commit to supplying certain produce for the processing line. Develop alternates to certain products in the main product line that take into account farm rotation schedules. Use the experience of Growing Up Organic to manage and plan.
3. Crop failures that significantly reduce or stop production of a particular product.	Take potential crop failures into account when developing the product line and the alternate products.
4. Insufficient buy-in to the concept by farmers.	Present a strong business case to farmers. Conduct focus groups with farmers prior to start-up to respond to concerns/questions and to establish commitment.
5. The volume of products may be too low to support sufficient cash flow to keep the business operating.	The start up phase must minimize fixed costs. The length of the start-up phase will be longer.
6. The costs of production may price the processed product too high for sufficient sales. These costs include: produce inputs, labour, equipment, licensed facility.	Processing should make maximum use of second grade produce which is priced lower than top grade. Through the start-up phase, labour should be purchased on an as-needed basis rather than full-time. Limit equipment purchases to small items only. Rent rather than purchase larger equipment & facilities.
7. Lack of tested recipes that make the best use of produce inputs.	Work with an experienced chef(s) to develop introductory products.
8. Lack of product testing in the local market.	Test market products in a cost controlled and effective way during start-up and manage production volumes accordingly.
9. Lack of funds to pay for experienced food processing business management.	Experienced management and coordination are essential to the success of the business.

## 6. PROPOSED OPTION

### Considerations

- The opportunities for food processing using local inputs far outstrip the obstacles.
- The central dilemma in the risk management assessment:
  - The strength and uniqueness of the business is that it will process food products that are created from locally farmed produce; and
  - The main risk of the business is the unpredictable volume of the supply of locally farmed produce.
- In its first season, Growing Up Organic has shown that while no one farmer on Salt Spring grows enough produce to be a viable supplier to institutions, when many farmers produce is combined the supply becomes very viable.
- Growing Up Organic has also shown that some produce is available in greater volumes than what the institutions are purchasing. It has also shown that some produce is available in larger volumes at a lower quality than is saleable at a top price. For example: apples, scarred pears and plums, scarred tomatoes, green tomatoes, large zucchinis and other summer squash, larger carrots. In addition, in any season there are some crops that have a higher than usual rate of imperfects. These are all crops that lend themselves to value-added processing.
- A central issue is managing the scale of processing production so that it is large enough to make money and not so large as to outstrip the supply of inputs.
- In part because of higher costs of growing produce on Salt Spring and because of the low supply/high demand equation, product net revenue margins are going to be very input-price sensitive.
- A central objective is to increase farm incomes, not undercut the price of inputs. At the same time, competing in the processed food marketplace (even on Salt Spring) is bumping up against grossly under-priced processed food choices. Price competitiveness is going to have to be carefully managed.
- Feasibility hinges to some extent on community engagement in all kinds of local food choices, including locally processed products.

#### i.

### Developing the Business

The considerations outlined above suggest that the best way to proceed is to:

- ✓ Start slowly and extend start-up over a minimum of two years; and
- ✓ Test products before going into large production not just for response in the market place but, importantly, for giving time to farmers to adjust their crops—rotations and volumes—to accommodate the need for processing inputs.

The considerations also suggest that the best model for starting this business would be:

- A collaborative venture, rather than many individual farms doing their own processing; and
- Start the venture on an incubator basis. Food processing incubator centres exist elsewhere but there isn't such a facility in BC. In the absence of such a centre, it may be possible to model some of the characteristics of an incubator situation within Growing Up Organic to test and manage start up of this food processing venture.

## **b) Incubating Start-up**

- Link the start-up of the value-added processing to Growing Up Organic in order to manage the supply of local produce ingredients.

Advantages:

- Makes maximum use of the coordination system already in place and avoids duplication of operational systems.
  - Allows for the streaming of produce, based on quality and supply, to either institutions or processing.
  - Maximizes economies of scale of inputs by coordinating purchases from many farms.
  - Minimizes the negative impacts of low crop yield risks by coordinating supply from many farms.
  - Supports the sustainability of the Growing Up Organic distribution “business” by diversifying its function.
  - Is consistent and complementary for farmers.
  - Produces revenue for GUO.
- Phase in the value-added processing over several months in order to demonstrate and test best products and best practices.
- Advantages:
- Mitigates the risk of setting goals for the value-added processing that exceed the availability of produce inputs.
  - Allows for measured and tested product development.
  - Limits the capital costs at start-up and allows for building capital resources over time.
  - Accommodates itself to direct marketing as well as wholesaling, thus increasing sales margins.
  - Could be implemented on a demonstration basis this fall.
- Use the demonstration start-up to design a larger incubator food processing on Salt Spring Island
- Advantages:
- Provides for managed expansion
  - Creates environment for small processors to operate under a Salt Spring Food Processing umbrella, sharing resources and facilities with the core business started by Growing Up Organic. The incubator facility could even accommodate a co-packaging venture if that's what farmers want.

## **c) Suggested Product Development**

These product ideas are based on:

- 1) Use of produce inputs that grow in quantity on Salt Spring and that often produce seconds, as learned through Growing Up Organic in 2008;
- 2) Farmers have responded positively to growing these inputs and supplying them for processing; and
- 3) Products that have an extended shelf life

Start-up product suggestions:

- Tomato-mixed vegetable pasta/pizza sauce
- Mixed fruit chutney
- Green tomato relish
- Fruit leather, dried fruit chips
- Canned pie fillers: e.g. vegetarian mincemeat; pumpkin-squash; pear-apple.

**d) Processing Team**

Work with a group of chefs to produce signature products. Provide apprentice placements for students in the cook certificate program at the high school.

**e) Facility(ies)**

Rent existing licensed kitchen facilities (there are four possible sites) on a piece-work basis.

**f) Marketing**

In the first season or two, sell most of the products directly through the Tuesday Farmers Market, seasonal markets, and by arrangement with chefs at special locations and events. This will establish the brand and spotlight the product in the community. It will also increase the margin and establish stronger cash flow for leveraging a loan with a financial institution for capital investment in year two.

**g) Example of Product Estimated Costs and Net Revenue**

<b>Product #1: Tomato vegetable pasta sauce</b>	
<b>Estimated Revenue for 480 750 ml jars</b>	
<b>@ \$8.00 per jar</b>	<b>\$3840.00</b>
<b>Costs*</b>	
<b>Ingredients (132 kg of produce)</b>	\$ 550.00
<b>Jars + labels</b>	\$ 760.00
<b>Chef + assistant</b>	\$ 170.00
<b>Facility rental</b>	\$ 75.00
<b>Equipment (amort.)</b>	\$ 20.00
<b>Total costs</b>	<b><u>\$1575.00</u></b>
<b>Net revenue</b>	<b><u>\$2265.00</u></b>

\* Detail on file on worksheet

**h) Cash Flow**

If **three products** similar to the one described above were created in the first year of the business, approximately \$4725 and 400 kg of produce would be required to start production.

If each product produced revenue similar to the example above, total gross revenue would be \$11,520 and net revenue would be approximately \$6795.00. These numbers may vary as estimated

costs are turned into actuals based on seasonal input prices (see “Considerations” page 6). The selling price would also have to be adjusted accordingly.

If storage, marketing and distribution cost one-third of net revenue, the remaining revenue available for coordination and further product development in year one would be \$4530.00.

## **7. CONCLUSION**

This study indicates that food processing using local farm inputs is feasible under certain managed conditions. The key conditions are: 1) developing products based on the collective inputs from several farms rather than on a farm-by-farm basis; and 2) managing start up and product development to match the availability of farm inputs.

The study further suggests that Growing Up Organic provides valuable, proven experience for how coordination and the development process could be handled. It suggests that Growing Up Organic could provide the incubator-like organizational structure for demonstrating the viability of this venture.