



BRANDON
UNIVERSITY

CASE STUDY

Floating Leaf Fine Foods

Strategies for Growth of Bulk Food Processing in Manitoba

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RURAL
DEVELOPMENT
INSTITUTE

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>> Acknowledgements

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Rural Development Institute, Brandon University

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Executive Summary

>> This applied research project answers the question: *Where are the opportunities for growth in bulk food processing?*

This case study is one of eight conducted to describe successful bulk food processing companies in Manitoba and give insight into opportunities for growth and innovation in these industries.

Floating Leaf Fine Foods is a vertically integrated, family owned business that has been processing wild rice for 4 generations. They process and package naturally grown wild rice, for food service, retail, private label and food manufacturing markets.

Wild rice is grown naturally in the lakes and rivers of northern prairie Canada, and its supply is inconsistent due to weather and water levels. This is a challenge to the industry as a whole, however Floating Leaf has managed this risk by offering diversified products (e.g. blends) and services (e.g. co-packing).

Floating Leaf is a company that has focused on innovation; they keep up to date with current trends in the industry such as: packaging design, sprouted seeds, and convenience foods that are also tasty and healthy.

There are many opportunities for growth under the above trends, and also in export markets. Floating Leaf's planned updated and expanded facilities will give them the capacity to take advantage of these opportunities.



Courtesy of Floating Leaf Fine Foods – www.eatwildrice.ca

Introduction

PURPOSE OF STUDY

Growth in food processing to produce bulk ingredients represents a major opportunity for Manitoba to increase economic activity in the province. This research follows from a preliminary study into the opportunities for growth that come from innovation in the bulk food processing industry in Manitoba. For the purpose of these studies a bulk ingredient processor is defined as a company that sells to manufacturers, bulk wholesalers, distributors, businesses and food service. Private label sales are also included as a type of bulk sale in this research; in addition some processors also sell their own branded products. The unit of sale will be in most cases significantly larger than the retail size.

The notion of health benefits associated with ingredients was an additional factor examined with the majority of companies selected.

RESEARCH METHODS

The main research method was interviews with company and association leaders through the supply chain, together with researchers and other innovation partners.

This research uses “Instrumental Case Studies”: eight Manitoba bulk food ingredient processing companies and their associated supply chains are examined to provide insight into growth and innovation within the bulk food processing industry.

The studies gather data on: history, activities (describe chain processes), setting (product & industry), and other contexts and informants (chain). Beyond this description, the focus of the study is growth and innovation in each company and supply chain.

The “Oslo Manual” guidelines¹ for collecting and interpreting innovation data were used to formulate the interview tool for the semi-structured interviews conducted in this study.

¹ Oslo Manual Source: OECD & Eurostat Agri-Food. 2005: Guidelines for collecting and interpreting innovation data.

An innovation is defined as the implementation of a significant change in product, process, marketing or organization that is new (or significantly improved) to the company.

The interviews covered several areas of focus:

- Overview: a description of the company, industry and supply chain, and how they work together
- An investigation of innovation in the companies, supply chain and industry:
 - Past innovations that lead to this industry
 - Innovation opportunities for the future
 - Factors that affect ability to innovate
 - Linkages to outside innovation resources

INTERVIEW PARTICIPANTS

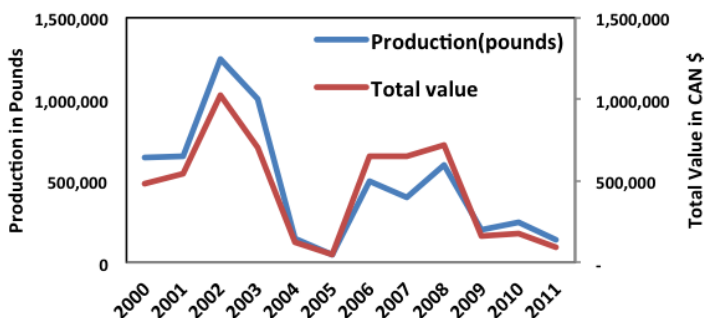
Participant	Role
Murray Ratuski - President Floating Leaf Fine Foods	Processor / Manufacturer
Eric Sylvestre Saskatchewan Rice Harvester	Grower/Harvester
North American Food Distributor	Distributor
Matthew Ratuski – Sales & Customer Relations Director Floating Leaf Fine Foods (previously in Food Service)	Processor / Manufacturer (Distribution)
Alphonsus Utioh – Manager Food Development Centre	Innovation partner
Peter Jones - Director Richardson Centre	Research Centre
Dave Shambrock Manitoba Food Processors Association	Processor Industry Association

WILD RICE INDUSTRY

Wild rice is a grass which grows in water (*Zizania aquatica* or *Zizania palustris*); a very distant cousin of Asian rice. The grain has been traditionally gathered as a food in North America for hundreds of years. In Canada wild rice is usually harvested as a naturally organic crop, grown in the clear fresh water lakes and streams of Ontario, Manitoba, and Saskatchewan. Rice is harvesting over one month in the fall, with 4 or 5 passes over the lake by specially adapted air-boats. Wild rice also is commercially cultivated, in paddy fields, in California, Minnesota (also grown in wild), Hungary and Australia.

The majority of Canada's wild rice is grown in Northern Saskatchewan. Manitoba's annual production has focused exclusively on wild rice that has been harvested from natural bodies of water (lakes and rivers) mainly in areas east of Lake Winnipeg, in the Whiteshell and in the northwest near The Pas and Flin Flon. Over the last decade, Manitoba's share of Canada's annual wild rice production has averaged around 25 percent². Manitoba's annual wild rice production (and associated \$ value) have fluctuated significantly in recent years.

Historical Production and Value of Wild Rice in Manitoba



2 http://www.gov.mb.ca/trade/globaltrade/agrifood/commodity/wild_rice.html & https://umanitoba.ca/faculties/afs/dept/agribusiness/media/pdf/Crops_in_Manitoba_2012.pdf

Health Benefits of Wild Rice³⁴

Wild rice is classified as a whole grain, is a good source of dietary fiber and has nearly double the amount of protein of white rice. The fat content is low; however, most of the lipids are essential omega-6 and omega-3 fatty acids. In addition to macro-nutrient content, wild rice contains phytosterol levels several times higher than white rice. Furthermore, the antioxidant activity of wild rice is 10–15 times higher than white rice.

Current interest in ancient grains and gluten-free diets, as well as possible antioxidant and lipid lowering properties, make wild rice an attractive grain addition to the diet.

FLOATING LEAF FINE FOODS

The Company

Floating Leaf Fine Foods (FL) is a family business owned by the Ratuski family. The family business started in 1935 with buying green wild rice, and began processing in the mid 1950's. FL currently has a Manitoba roasting plant, and a processing and packing plant in Winnipeg.

Over these years, Floating Leaf has been supplied with wild rice by the same families of harvesters mainly located in Northern Saskatchewan, Manitoba and fewer in north-west Ontario.

Floating Leaf is the only Canadian company involved in every facet of the wild rice industry; from harvesting, to processing, to blending and packing. In addition to the products they make, Floating Leaf is an accredited co-packer of other companies' products.

Floating Leaf is a true long-term family business as the fourth generation of the family is actively involved in the management team. FL currently operates with 20 employees, half are part-time.

3 <http://cerealchemistry.aaccnet.org/doi/abs/10.1094/CCHEM-08-13-0161-RW>
4 Surendiran et al, Nutr Rev. 2014 Apr;72(4):227-36

Processing

Raw wild rice is cured for 2 or 3 days at the Floating Leaf facility. Processing occurs with a unique technique developed by the Ratuskis, the process is based on the principles of roasting instead of par-boil steaming. This results in wild rice with excellent color, taste, texture and stronger aroma.

At Floating Leaf's Winnipeg facility the rice is cleaned before further processing; this involves removing dust, metal detection, etc. The rice is then graded by size and further processed for the desired cooking time and consistency; it is then ready for packaging or blending with other grains.

Floating Leaf's Winnipeg facility is BRC certified; meeting the requirements of Global Standard for Food Safety. It also holds the following certifications: HACCP, Organic (OPAM), Kosher and Non GMO.

Products

The Floating Leaf brand includes pure wild rice; wild rice blends (gourmet and prairie) and pasta; pancake, muffin and waffle mixes; stuffing; and other products. All the company's wild rice and blended ingredients are available in retail packaging and bulk quantities.

Floating Leaf also packages private label products, makes custom blends and co-packs products for other companies.

Markets / Customers

Food service is a very big part of Floating Leaf's business. Retailers (large but also independent chains), food manufacturers, wholesalers, brokers, distributors and co-packing clients comprise the customer base of Floating Leaf. Exporting to international destinations is an additional part of Floating Leaf's business; currently FL exports to Europe, Australia, Japan, Dubai and South Africa.

Position in Industry

Floating Leaf is one of the largest processors and manufacturers of wild rice and blends in Canada and the only Canadian company with national branded pure wild rice.

Competitive Advantages

- Involved in all facets of the process – harvest to packaging
- Focused on on-going innovation
- Family business with long history and knowledge of the industry

Supply Chain

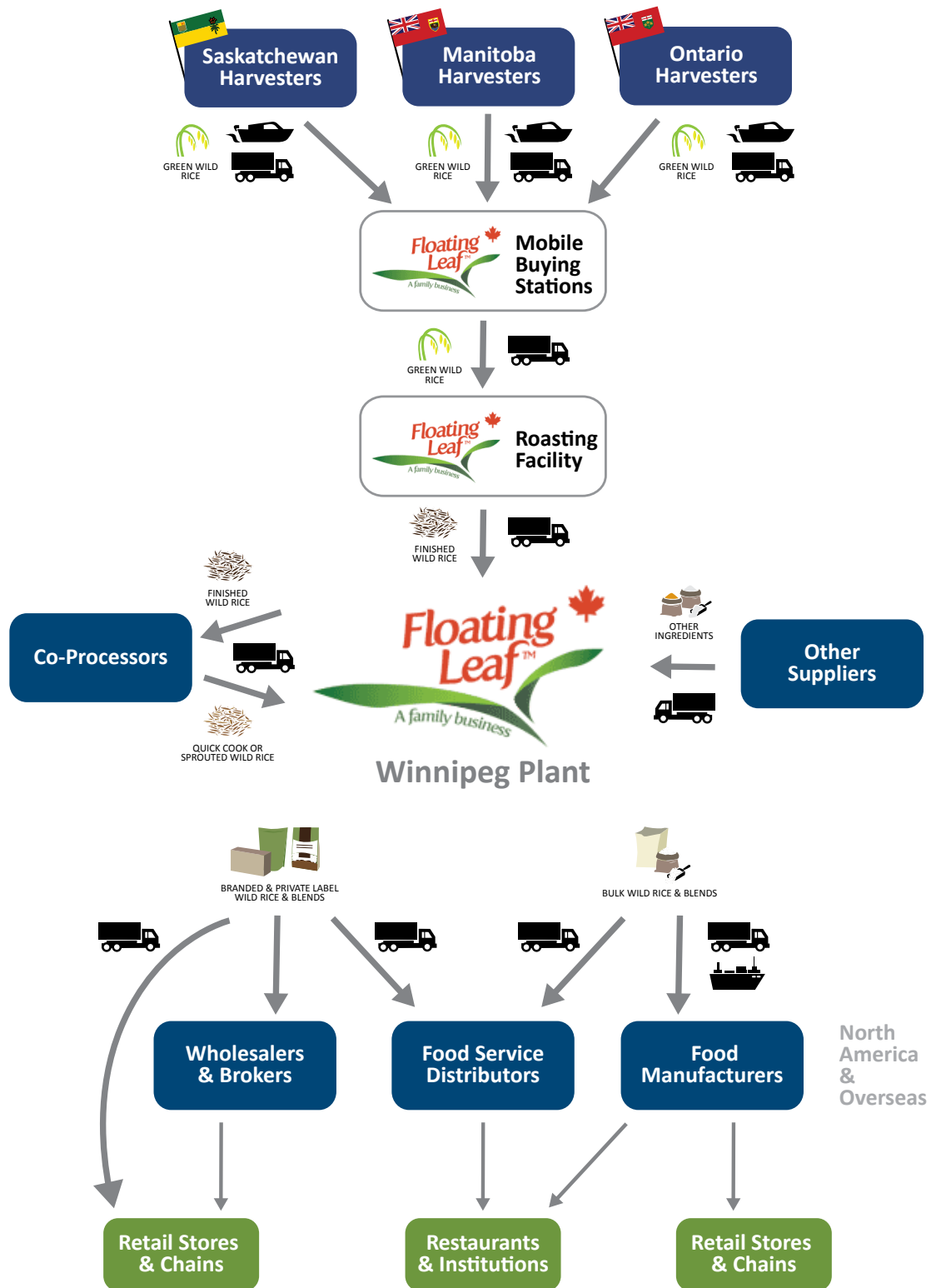
Floating Leaf gets its wild rice supplies mostly from Saskatchewan harvesters, but also from Manitoba and North West Ontario. In the cases of insufficient Canadian supply, wild rice is also imported from the US.

Wild rice is harvested using air-boats then transported to Floating Leaf's mobile stations by truck or boat. These stations move periodically depending on where the wild rice areas are. Wild rice is trucked to the Floating Leaf's roasting facility for initial processing, then to the Winnipeg plant for grading and packing. Some product is shipped to co-processors for sprouting or conversion to quick-cook rice.

At FL's BRC facility in Winnipeg the wild rice is cleaned, graded, blended and packaged into the final product for retail, private label or bulk sale.

Floating Leaf sells directly to food service distributors, food manufacturers, brokers, warehouses and large retail chains. When it comes to overseas customers, they mainly sell their products through distributors.

Floating Leaf Wild Rice Supply Chain



Innovation

Floating Leaf is a vertically integrated company that has close contact with its wild rice harvesters and processes rice for bulk ingredient sales, retail branded and private label products. The majority of their innovations have centered around developing innovative processes and products to expand the market for wild rice in retail and bulk ingredients and innovating to serve their

customers better. Harvesters and distributors are constantly innovating to increase efficiencies and keep up to date with technology. There are opportunities for Floating Leaf and the wild rice industry to expand the wild rice industry through exports and increased use as a "healthy" food and ingredient.

<p>FL 1 Innovation: Unique Processes</p> <p>Type: Process / Product</p> <p>New to: Wild rice industry</p> <p>Part of supply chain: Processor</p> <p>When: 1965 & 2014</p> <p>Time Line: one-step x 2</p> <p>Developed: In-house and with Food Development Centre</p>	<p>The Ratuski family developed a unique, proprietary roasting process for their wild rice in the 1960s. Careful monitoring of temperature and moisture gives a consistent premium product that is darker, stronger aroma, nuttier taste, and firmer texture than other processes.</p> <p>"Wild Rice in Minutes" was launched in 2014. A proprietary process produces quick cook rice that cooks in 10-12 minutes, is easy to digest, and has very similar nutrients to conventional wild rice. This innovative product will open markets in convenience foods and blends using wild rice.</p>
<p>FL 2 Innovation: Blends</p> <p>Type: Product / Marketing → Organizational</p> <p>New to: Wild rice industry</p> <p>Part of supply chain: Processor</p> <p>When: Continuous to future</p> <p>Time Line: Multiple step-wise</p> <p>Developed: In-house with Food Development Centre and customers</p>	<p>Floating Leaf has been making simple blends of wild rice with brown and white rice for decades.</p> <p>They are now taking advantage of the opportunity offered by their quick cook proprietary process by developing multigrain blends for their own brands, private label and custom ingredient customers. Floating Leaf has worked with chefs and customers to blend tasty combinations that add to the health value and "functionality" of wild rice with pulses, seeds and other grains.</p> <p>Blends also diversify Floating Leaf's products, spreading risk, especially when wild rice is in short supply.</p>
<p>FL 3 Innovation: New Products</p> <p>Type: Product / Process → Marketing</p> <p>New to: Industry</p> <p>Part of supply chain: Processor / Manufacturer</p> <p>When: Continuous to future</p> <p>Time Line: Multiple step-wise</p> <p>Developed: In-house with co-packers & customers</p>	<p>Floating Leaf has developed two new products using wild rice flour as an ingredient: wild rice pastas and pancake mix. The flour is made by milling "splits", broken rice that is not suitable for sale as whole grains.</p> <p>Wild rice is an organic product with many useful nutrients; it falls well within the "natural health products" umbrella. Floating Leaf is researching other opportunities to use whole grains, wild rice flour and other extracts as ingredients in products that follow current consumer trends of healthy, convenient foods. Wild rice "bars" with added "functional" ingredients and wild rice water (similar to barley water) are examples of possible future products in this category.</p>

<p>FL 4 Innovation: Packaging</p> <p>Type: Marketing</p> <p>New to: Company</p> <p>Part of supply chain: Processor</p> <p>When: Continuous to future</p> <p>Time Line: Multiple step-wise</p> <p>Developed: In-house with designers and packaging suppliers</p>	<p>A significant portion of Floating Leaf’s business is retail – whether their own brands or private label.</p> <p>Floating Leaf is continuously developing and introducing new packaging materials and designs. Together with developing and offering products that meet customers’ needs, an essential marketing tool is keeping packaging up-to-date and ensuring products are attractive and noticeable on the shelf.</p>
<p>FL 5 Innovation: Safety Certification</p> <p>Type: Organizational → Process</p> <p>New to: Industry</p> <p>Part of supply chain: Processor</p> <p>When: Continuous to future</p> <p>Time-Line: Incremental</p> <p>Developed: In-house with certifiers and rest of chain</p>	<p>Floating Leaf has multiple certifications such as Organic, Kosher, non-GMO and HACCP. They have completed certification through the internationally recognized BRC program, meeting the Global Standard for Food Safety, the only wild rice producer in Canada to have this level of certification.</p> <p>BRC certification has opened doors for new domestic and export markets for wild rice ingredients and retail products; as well as providing similar opportunities for other Manitoba products through a co-packing service.</p>
<p>FL 6 Innovation: Agronomy and Technology</p> <p>Type: Process</p> <p>New to: Company</p> <p>Part of supply chain: Producers & Distributors</p> <p>When: Continuously, past and future</p> <p>Time Line: Incremental & step-wise</p> <p>Developed: In house with other producers & equipment suppliers</p>	<p>Wild rice harvesters are periodically investing in new harvesting equipment, and improving harvesting and grain handling methods to give the best wild rice grain quality. There are opportunities to improve re-seeding and straw-management to more effectively manage this wild crop. Wild rice is an annual plant and the establishment of a seed-bank to ensure seed supplies year over year was suggested as a tool to stabilize supply.</p> <p>Distributors are continuously upgrading to keep up with technological changes in inventory and data management; this enables them to serve customers better, be more efficient and avoid waste.</p>
<p>FL 7 Innovation: Expand Markets</p> <p>Type: Marketing</p> <p>New to: Industry</p> <p>Part of supply chain: Processor</p> <p>When: 2013 to future</p> <p>Time Line: Incremental & step-wise</p> <p>Developed: In house and with distributors</p>	<p>Several participants pointed out that there are many opportunities for wild rice to expand into two large niche markets, both for export and ingredients. Organic and vegetarian were highlighted, where blends with pulses, seeds and other grains make the product healthier and more convenient.</p> <p>The starch market is currently very open to new alternatives; this is an opportunity for the wild rice industry to expand their reach into more mainstream markets.</p>

FL 8 Innovation: New Plant	<p>Floating Leaf is planning to build a new processing facility in Manitoba within the next 5 years. This will replace and update the existing processing and packing functions of their current facilities. It will also include the capacity to “sprout” wild rice and other grains and pulses, currently being done at co-processors.</p> <p>The new facility would increase Floating Leaf’s processing capacity; whilst also offering a needed service of sprouting, processing and co-packing to the Manitoba food processing community.</p>
Type: Organizational → Process	
New to: Company	
Part of supply chain: Processor	
When: before 2025	
Time Line: Step-wise	
Developed: In-house, with partners	

Innovation Methods

Factors that Affect Ability to Innovate

The **incentives to innovate** for Floating Leaf is to stay ahead of the competition, that means to bring something different/better or a new concept to the market. It was clear from all supply chain members that in order to “stay in business” and grow, innovation must be an ongoing thing. From the grower’s point of view, ensuring a good quality crop was the major incentive which eventually results in better crop value.

Floating Leaf innovates initially in house but then seeks feedback from their customers, suppliers and other partners. Ideas **are generated** by the management team; members of the team are constantly attending trade shows, observing market trends, talking with chefs and other customers. Almost all members of the supply chain mentioned “talking with others” is what triggers innovation ideas.

Participants unanimously cited “money” is the main **obstacle to innovation**. More funds are needed for exploring new opportunities, upgrading machinery etc, however funds are not always available. Time was an additional barrier identified as people get busy with everyday work and they don’t often dedicate the time needed to generate new innovative ideas.

Innovation Linkages

Floating Leaf uses a great variety of **external knowledge** sources such as: trade shows; the Food Development Centre; internet, TV and social media to observe the trends; customers and partners; and annual publications of large retail chains (e.g. Sobeys, Loblaws). Chefs are an important source of information, for the majority of the supply chain members, to identify trends and seek feedback for ingredients and product.

Relationships with innovation linkages are both formal and informal, but overall there is open communication among the supply chain members. Ownership of intellectual property does not seem to be of a great concern among the innovation linkages of this supply chain.

Linkage relationships were considered by most participants to be close to collaborative, even though the large retail chains are more difficult to work with. Floating Leaf seems to maintain a close relationship with members of both sides of the supply chain.

Consistence/Stability: Relationships within this supply chain are considered overall consistent and stable; with most participants feeling that stability plays a key role in a chain. An exception to this is the relationship with some of the growers. From the processor’s experience, price is a priority for growers and FL is integrating “relationship and trust” at the same priority as price. From the grower’s point of view, keeping the business relationship with Floating Leaf is crucial, even though there might be better offers for their crop.

Limits to Growth

Participants almost unanimously identified crop supply being the major barrier to growth. Consumer interest in wild rice has risen dramatically and is often outpacing supply. However, Canadian wild rice is grown naturally and its supply is not consistent.

There are a couple of reasons associated with the inconsistency in wild rice supply. First, wild rice is a sensitive crop and weather (e.g. high water, cool spring, short summer, early fall) significantly affects its production. In some cases there has been crop failure for two or more years in a row; causing problems for processors and the growers, who still need to cover their operating costs. Processors often try to offset the shortfall in Canada by importing rice from the US despite the noticeable differences between the two varieties. Secondly, when crop prices are good growers are tempted to sell the entire crop and there is not much seed left for re-seeding (which results in less production for the following year). Lastly, there are some wild rice production areas that have been abandoned because communities surrounding them have lost interest in the wild rice business. Younger generations in those communities seem to be less interested in wild rice business succession; access to some of the lakes is also a problem.

The instability in both pricing and in crop supply is hurting the industry. Floating Leaf has managed to diversify this risk by diversifying its products. The blends that are now produced use wild rice mixed with other crops, so less wild rice is needed. Expanding their business to co-packing for other processors is an additional way for FL to diversify its risk during low supply years.

Finally, in order to grow the companies need to innovate and in order to innovate they need to invest money. The margins, as in most of the food processing industry, are so compressed that they do not always allow companies to build up funds to invest in future innovation. Lack of funds is also seen as a limit by the other members of the supply chain. Revenue instability for example, which is associated with crop instability as mentioned above, does not allow the harvesters to save money to invest in new equipment or exploring new methods for harvesting.

Conclusion

Floating Leaf Wild Rice is a well-established family business with great knowledge of the wild rice industry built over the years. It is the only Canadian company involved in the whole wild rice process from harvesting to packing and marketing national brands.

Over the years Floating Leaf has introduced new processes and products to the market and has a mandate to keeping its products up to date and exploring new trends and new markets. Demand for wild rice is increasing both nationally and internationally and the marketing umbrellas of “natural”, “healthy”, “sprouted”, “convenient cooking” and “starch alternatives” are opportunities for growth of the company and industry. Export markets are also very promising, especially for a Canadian BRC certified company like Floating Leaf.

Wild rice is grown naturally in Canada and its production is not consistent from one year to another. This fluctuation in wild rice supply is hurting the industry since in some years processors either have to go without or import wild rice from the US (not always possible and with noticeable differences among the varieties). Floating Leaf is dealing with this issue by diversifying its services (co-packing services to other processors) and products (blends with other grains).

Floating Leaf has the capacity, experience and the focus on innovation needed to take advantage of the opportunities offered and succeed in future growth.



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