

University of Guelph

Canadian Agri-food Exports: Bernardin

Exporting Pectin to Nepal

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Part I

Product Description

Bernardin is a Canadian company that sells pectin and home canning supplies in many stores all over Canada and the United States. At Bernardin, their goal is “To provide you with the tools and expertise you’ll need to bring nature’s bounty to your table all year long.” The company has dedicated laboratories where all its products and recipes undergo extensive and careful testing carried out by Bernardin specialists, including allergy and dietetic related issues are considered. All safety aspects are scrutinized and controlled, from pectin performance to thermal shock resistance, Bernardin ensures that its products meet high standards expected by their customers as well as creating a line of products to be proud of (Bernardin, 2011). Bernardin is part of the Jarden Corporation. It is a corporation of over 100 different brands sold globally. The proposed idea is to export and sell large scale and wholesaling quantities of the pectin and canning product kits to the fruit farmers in Nepal, mainly targeted to the Kafal (or Kaaphal) berry farmers. These kits would contain; pectin, jars, lids, recipes for local fruit varieties, safety equipment, labels, jar lifters, and funnels. These kits would ensure that the farmers had everything they needed to start making the jam and not need to spend extra money. These items would also be available separately to if they did not wish to purchase a whole kit. The pectin is the most important part of the kit as it is the main product being marketed which is why it will be available separately in large quantities.

What is Pectin and how is it Made?

Pectin, a substance commonly used for thickening preserves, sauces, and jams for hundreds of years, and was first isolated in the 1820's. Pectin was commercially produced first in Germany in 1908, and then it began to quickly spread over the United States where it was first patented. The majority of pectin is now produced in Europe and countries that grow high numbers of citrus fruits such as Mexico and Brazil (International Pectin Producers Association, 2001). Pectin is a naturally occurring part of the cell wall of edible plants, most commonly extracted from the peel of citrus fruits and the pomace of apples (Nex-xus Distribution, 2010). It is found in the middle lamella, which is the layer between the cells in the cell wall. More specifically, it is found between the outer most peel and the fruit sections. In citrus fruits, this is also known as the "pith" which is the white bitter part of the peel. Pectin is also found in the membranes between the fruit sections that contain the pulp. It influences growth and gives the fruit its firmness and encourages water retention (International Pectin Producers Association, 2001). It is what creates the gelatinous state of jams and jellies, without pectin, the jams and jellies would simply be sweet fruit juices. Pectin now has a wide variety of uses aside from jams and jellies. It can be found in beverages, yoghurts, fruit juices, and even some milk products (Nex-xus Distribution, 2010). Pectin is available in two forms, liquid and powder. (Bernardin, 2011) The liquid form is isolated by putting the peels and cores of apples, or the pith and membranes of citrus fruits into water at a ratio of one part fruit to six parts water, the fruit and water is brought to a boil for an hour and twenty minutes. Then it is strained through multiple layers of cotton or muslin cloth to get rid of the pieces of fruit so only pectin is left behind. The powder form is made by removing the pith from citrus fruits and the cores and peels from apples and dehydrating them for 24 hours,

and grinding them into a fine powder. This process is called aqueous extraction. (M. T. Turakhozhaev, 1993).

Machinery Costs

In the early stages of this business venture, no machinery will be needed. If the pectin and jam business in Nepal takes off, it may turn in to a more commercialized product and require a manufacturing facility and a processing plant to make larger quantities of the Kafal berry jam and other fruit preserves in a more efficient, cost effective manner.

Labour

The labour costs will be generally low for this product in the beginning. The main focus of the jams will be on the Kafal berry which is a sweet red berry similar to a raspberry. It is only available between the months of May and June, and is looked forward to by the Nepalese every year. They are found in the Himalayan foothills, at between one thousand and two thousand meters above sea level (Pathak, 2013). It is currently harvested from wild growing trees by locals who then bring them to Kathmandu in woven bamboo baskets to sell in farmers markets, this would be the only labour required in Nepal at the first introduction of the company. Should the company succeed in Nepal, the Kafal berry trees could be produced in a more commercial way, with farmers growing orchards of them and harvesting much larger quantities of the berries, to allow some for jam making as well as the Nepalese traditional uses which have been around for many years. Creating a more commercial level of Kafal berry production would require more labourers, which would increase productivity of the company and create more jobs for the Nepalese population. There is a large amount of seasonality in the Kafal berry growing season.

Only having the berries available for two months of the year could pose a threat to the business potential. However creating jam from the Kafal berries would mean the berry's flavour that is loved and celebrated by the Nepalese culture would be around for a longer period of time every year.

Health and Nutrition Information

Kafal berries have many medicinal and health properties to them. In traditional Hindu medicine culture called Ayurveda which is a form of alternative medicine, Kafal berries possess a variety of health benefits such as vishagna, which is considered a natural detoxifying property, the berries also are said to have an astringent quality to them called stambhana, astringents are chemical compounds that contract the skin, similar compounds that are more familiar to the western world are witch hazel and calamine lotion. Avedanasthapaka is a natural pain killer found in the Kafal berry. Kanthya is said to help soothe a sore throat. The bark and seed from the Kafal berries and trees are also considered to possess medicinal qualities that can help with heart health, helps treat edema, and haemoptysis which is the coughing of blood (Boss Nepal, 2014). With so many positive health benefits from the Kafal berry this could be used as a marketing strategy for the tourist. With homeopathic and traditional medicine practices becoming a popular topic in new world, a jam made from a fruit that possess so many qualities would spark interest in the product. Pectin itself does not have a lot of nutritional qualities. In a one ounce serving of pectin there are 91 calories, 1 calorie from fat, 56 milligrams of sodium, 25 grams of carbohydrates, and 2 grams of fiber. Pectin also contains 4% of the daily value of iron. Pectin however is a naturally occurring substance, which is also a positive characteristic that will appeal to tourists interested in natural foods and are conscious of manmade food additives as well as the

Nepalese people who are also interested in natural and holistic food and food additives. The nutrition value of Kafal berries is unknown, however they are similar to raspberries, which are high in dietary fiber, a great source of vitamin c and vitamin k, as well as very low in saturated fats and cholesterol. Jam however, is a very sweet sugary food, jam is a topping used to enhance the flavour of an otherwise plain tasting food such as toast or saltine crackers. It is not meant to be eaten on its own as a separate food. It is not a very healthy food, but something to make food taste better.

Market Opportunity

In Nepal, pectin will be a niche product directed mainly towards tourists who are visiting Nepal. This is largely due to the fact that they will likely be the ones who can afford to buy the jams made from the Kafal berry. This does not mean that the Nepalese people will not be able to enjoy it as well. The Nepalese farmers will be able to make the jams and sell them in local markets as well as make them for their own family. During the Kafal season the berries are usually served in a paper cone with rock salt and spices on them making a tasty treat that marks the end of spring and only have a shelf life of 2-3 days (Pathak, 2013). Bringing pectin to Nepal through Bernardin Ltd will allow the Kafal berry flavour to be shared with the world and extend the length of time the berries can be enjoyed. It is not a product required or needed by the population, but is more of a luxury product to improve flavour and create a new way for farmers to market their produce.

Benefits Canada

Bringing Bernardin's pectin to Nepal would have benefits for Canada in that Bernardin would need a whole new marketing team for the Nepalese market, with researchers, brand ambassadors,

project managers, and Canadian representatives in Nepal who conduct business directly with the government, farmers and trade officials, ensuring that the product still maintains Bernardin's high standard of product and quality. Canada doing business in Nepal could also introduce a possible trade agreement between the two countries, allowing for easier exchange of goods and services and creating a positive relationship with the country. This could ultimately lower the cost of exporting goods from Canada to Nepal making the pectin more affordable to the Nepalese people and making it more attractive to the targeted market. Whether or not a trade agreement between Canada and Nepal is established this could open the door to more Canadian companies doing business there as well strengthening the bonds between them.

Environmental Sustainability

According to the International Pectin Producers Association, Canada is not a producer of pectin. When contacted about where Bernardin obtains the pectin they sell, no response was offered. From previous information it can only be assumed that Canada either does not produce pectin and that it imports it from a high producing company most likely, the United States or Mexico due to their close proximity to Canada, or that Canada does produce pectin and is not registered with the IPPA. That being said, the production of pectin has a relatively low impact on the environment. Majority of the production is through boiling or dehydrating. So the only real effect from the production of the pectin would be the power required to heat the water, and the energy needed for the dehydration process. The transportation of the pectin will have the largest environmental impact, but as a whole, exporting pectin to Nepal from Canada is environmentally sustainable.

Part II

Transportation and Logistics

The goal of keeping this product as affordable as possible means that sacrifices on time will have to be made in transportation. The faster something is delivered the more expensive the cost (Purolator, 1960). The least expensive route of transportation is ground shipment transport truck. The pectin would be loaded onto a truck and driven to the nearest harbor with access to the ocean. The pectin would then be loaded onto a freight liner and shipped across the Atlantic Ocean and Indian Ocean, where it will then be loaded on to another truck in from a harbor in Bangladesh and driven to Nepal. Once in Nepal the pectin will be distributed amongst its buyers. The pectin is then used to make Kafal berry and other fruit preserves and jams which are then sold in farmers markets and super markets. Because the travel time will be so long the farmers will have to wait a very long time to begin the production of their pectin products, this time could give them a change to decide on the flavours they wish to create and which fruits they will use in their jams. Ultimately the cost of shipping will increase the price of the pectin, but cost of transportation will be as minimal as possible.

Storage Issues

There are 2 types of pectin available, powdered and liquid. The liquid form needs to be refrigerated and used after 7 days of being opened, this is not a realistic expectation for Nepalese farmers as we cannot assume that all farmers have a way of keeping the pectin cold, and that they will be able to use it in 7 days. The dry form of pectin, is much easier to keep and has a longer shelf life

of up to 6 months. It should be kept in a dry place off the ground. A cool dry place would be best. The climate in Nepal ranges from hot tropical weather to the cool mountainous regions in the Himalayas. So storing the pectin could be an issue in some parts of the country. But as a whole it should not be a large issue when it comes to the preservation of the pectin powder.

Cost Analysis

The costs for this business venture are relatively high at the initial glance. The difference between the Nepalese Rupee and the Canadian dollar is quite large. 1 Canadian dollar is equal to 82.21 Nepalese rupees (Rates, 2014). With Nepal having such a high exchange rate and a relatively low GDP per capita which is currently \$409.4 USD (Economics, 2014). Keeping this product as least expensive as possible is very important. To put it in perspective, this means that a 57g box of pectin that costs \$2.25 in Canada, would cost 197.86 NPR. For the local farmer, this seems out of the question considering that would mean spending half of their yearly earnings on a small box of pectin. This is why purchasing wholesale and bulk quantities of pectin as a community would make more sense and make the product more affordable to the more local and smaller farming operations in Nepal as well as making it more appealing to the large scale fruit farmers in Nepal if they were able to purchase the pectin for a more reasonable price. On average the wholesale price for pectin is approximately \$15 to \$20 per kilogram on Chinese and Indian online stores, and many of the suppliers have a minimum order of around 100 kilograms (Alibaba, 1999). If Bernardin were to set similar prices and minimum orders, the cost would be approximately \$168 079 NPR for 100 kilograms, plus shipping and handling and applicable taxes. This is still a large number, but if compared to purchasing 100 kilograms worth of 57 gram boxes alone, it would equal approximately \$378 177.75NPR. So the price is less than half that of

purchasing pectin per 57gram box. Buying the pectin as a community or if regional government along with the wealthier more well off fruit farmers pooled together to purchase the pectin, it would save money and allow more access to it in the country by making it more affordable. The regional governments and Bernardin could work together and come up with a per gram price once the product reached Nepal and have it available to the public in farmers markets as well as in chain grocery stores such as Bhat Bhatenti which is one of the largest grocery chains in Nepal (Bhat-Bhatenti Supermarket, 2013).

Benefits to Nepal

Brining jam and pectin to Nepal would create a whole new way of farmers marketing their produce to the locals as well as create a great new tourist attraction. Being able to have jams made from the local fruits of Nepal would make it easy for tourist to try new things and still feel in their comfort zone, and make it feel like they had a little piece of home with them. Jam is a very simple and easy food to make, with very few ingredients and simple instructions, farmers could even use it for their own family needs, as well as create a product that could be sold in supermarket chains and large stores. Should the Kafal berry jam be a success with the tourists, in the long run it could turn into a potential export from Nepal, being sold in specialty food stores, airports, and online markets. This would mean a higher standard of food safety would need to be established in order to adhere to global food safety laws. This would be a huge step for Nepal's economy and improve their health and safety standards, which could lead to other product exports as well. Increasing the appeal of Nepalese goods and raise their status as a food safe country. The Kafal berry season is a very traditional and cultural event that could bring many tourists to witness the traditional harvesting, folklore and songs associated with the fruit. The

many holistic medicinal properties of the berry could be a major sell feature of the jam to tourists, listing all the properties the berry and plant as a whole can offer on the label as well as the stories and folklore that are part of the culture would make the jam not only a delicious topping but a souvenir as well. The jam could also inspire a new kind of tour that visitors could experience, where they could go on a Kafal berry harvest tour, seeing the way the wild berries are harvested and even get to harvest a few of them on their own, making it an interactive event that introduces Nepalese culture and traditions and encourages purchase of the jams.

Real World Names and Contact Info

The Co-Founder, President and Vice Chairman of Jarden Corporation is Mr. Ian G. H. Ashken. Ashken has been the Chief Financial Officer and Vice Chairman since 2001 when Jarden was first formed (Jarden, 2013). The contact person for Bernardin was unable to be found or reached; this information will be needed to further carry out the business venture. Head of operations as Bhat-Bhatenti Supermarkets is Mr. Panu Poudel (Bhat-Bhatenti, 2013). More information is needed for contacting officials in Nepal as well as Canada.

Sales Marketing Strategy

Tourists are very much the target of this product. Tourism is one of the best ways to get a country noticed and to help it grow. If tourists have a positive and unique experience somewhere new, they are likely to recommend it to friends, family, co-workers, and any other person who they think would enjoy the same experience. Which is what this project is all about, getting Nepal noticed, helping the country grow as a whole and to make it a better place to live and do business. Once the Kafal berry jam is perfected samples of the jam and the berries will be sent to all the popular travel companies in Nepal along with information about the history and the

process of making the jam, how the berries are a tradition and a cultural food, and the stories associated with the harvest. The time of the harvest is in May and June, which is when the Kafal berry picking tours will be available. This would allow the tourists to see exactly where the berries come from and how they get from the tree to the jam. As mentioned earlier the berries and the bark have ancient Hindu medicinal properties. This could be another selling point, using the health benefits as an incentive to buy, creating the mindset that the jams are a sweet treat that also has potential health benefits. And with the current health food and natural medicine fad, this would definitely have a positive effect on the sales of jam. The jams could also be available at airports, train stations, bus terminals, and any other places that tourists would frequent. To gain as much brand exposure as possible, the jams would also be sold in supermarkets like Bhat-Bhatenti and local farmers markets. From the tourist experience, they might not want to come all the way back just for the jam. This could launch it into a possible export good that get exported to Europe and other countries that it attracts visitors from, allowing them to create more revenue from the product. This would also require the need for food safety regulations. Nepal currently does not have a processed goods export standard, as most of their exports are unrefined and raw goods. If they created a food safety standard they would improve the way they are viewed on a food safe level and also make the first steps in to improving their economy. In order to make all this happen it would have to start small, just like any business that is just starting out. But with time, Kafal berry jam could be the start of an excellent business venture in Nepal featuring a Canadian company.

Import and Export Documentation

In order to export the jam to other countries, such as Canada, the Kafal berry jam will require a certificate of origin. A certificate of origin is an international trade document. It is a form that needs to be filled out by the exporter or its agent and states that the shipment is completely produced, processed or manufactured in a specific country (WCF 2014). Pectin also has purity standards that must be met in order to be used in commercial food products which can be found on the International Pectin Producers Association website. However Bernardin does its own quality control testing and extensive research to ensure top quality pectin is being sold under their name. Although pectin is not a plant, it is derived from plants, so a phytosanitary certificate may need to be filled out and approved, this is a document that helps trade, but is not an official trade document (Government of Canada, 2014).

Conclusion

In conclusion exporting pectin to Nepal has great potential as a successful business venture. It is a very scale-able business and could change Nepal's agri-food sector for the better. Although costs are high mostly due to high exchange rates, it can be made possible through careful planning and possible assistance from organizations like UNESCO which is the United Nations Educational, Scientific and Cultural Organization. It is an organization dedicated to peace and security through the promotion of international collaboration, using culture, education, and science to enhance the respect for human rights, justice, and fundamental freedom (UNESCO, 2014). With the help of global organizations and the collaboration of Nepal and Canadian business leaders, something as simple as pectin has the potential to be the first stepping stone in a bright new future for Nepal, and for a Canadian Business.

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