# Canadian Basil for Nepalese Farmers Luke Hannam

### **Specific Canadian Company**

The Canadian Company I have chosen to export the basil seeds is Ritchers, a Toronto based green house and sales outlet for a variety of herbs. The first Ritchers catalogue was printed in 1970 and their line of products has only grown since then. Along with Herbs Ritchers also has vegetable seeds, roots, oils, dried herbs, and whole plants for purchase. Along with their retail business, Ritchers also provides consumers with a program that is designed to be an educational workshop that teaches growers how to better manage their crops in areas such as seeding rates and applications, what yield potentials are possible and how to achieve them, as well as important market data to increase the profitability of these crops. The program is called GrowerZone and has a target audience of large scale growers and well as back yard hobbyist's and everyone in between. Due to the wide range of people GrowerZone reaches, it would be very possible to teach Nepalese farmers on how to grow their crops using the same information and teaching methods. Ritchers has a very diverse line of products, in fact on their website alone, there are 59 different varieties of basil for retail, leaving the consumer with many options.

## **Product Description**

#### **Basil in General**

Basil is a member of the mint family and is a herb used primarily as an additive or topping for a number of culinary dishes. Basil is often found paired with tomato and is seldom found by it self as a salad due to its strong flavour. Basil is well known for its aromatic fragrance

and broad leaf structure. Although some members of the mint family and other herbs are considered to be invasive, basil is not and is a relatively docile plant. Other uses for basil include medical teas and lotions as well as topical treatments. Basil is known as the king of herbs due to the variety of uses and the versatility of its compounds.

### **Red Rubin Basil Variety**

The variety of basil of have chose is Red Rubin Basil, and it was selected for a number of reasons. The first being the ease of germination, compared to other varieties Rubin Basil has a much higher rate of successful germination, making it an attractive feature for potential Nepalese farmers. Another quality of Rubin Basil that is desirable is its disease resistance, as it is less susceptible to contracting specific leaf diseases that would decrease the quality and volume of basil produced by a plant. This variety was particularly selected because the Nepalese farmers should be more concerned with their investment in basil seeds surviving (against frost and disease) than the individual flavour associated with east strain of basil. Red Rubin Basil has proven to be the hardiest variety and the easiest to grow in tougher conditions making it a superb variety in the mind of a hypothetical Nepalese farmer.

### **Inputs Needed**

Like many other plants, basil is not a particular needy crop when it comes to inputs. Since the majority of Canadian basil is grown in an organic environment, herbicides such as Round-Up can not be used, as any herbicide applied would simply kill the basil plant along with a Nepalese farmer's investment. Some mild insecticides could be used to control some insect problems. However, since the leaves of a basil plant are very tender, only a very mild pesticide could be applied without damaging the basil plant. A very affordable and viable option for Nepalese farmers to control insects is a simple dish soap and water mix that would be lightly sprayed onto the foliage of the basil leaves. To deal with any plant based competition or weeds, manual removal of the weeds would best fit this scenario. Aside from dealing with these issues, only simple inputs are required such as water and a nutrient rich soil. Some fertilizers may be needed depending on soil conditions. Examples of these fertilizers are nitrogen, potassium, potash, of phosphorus.

#### **Benefit to Canada**

Canada would have a number of benefits if basil seeds were exported to Nepal. Firstly, the seed company Ritchers would directly benefit due to the sale of their product. If large amounts of seeds were sold then the possibility of job openings would benefit the economy of Toronto, Ontario, and Canada. Extra employees may be needed to grow the plants in a green house environment, harvest the seeds, package the seeds, and then further market the seeds to Nepal, as well as coordinating the sale and transportation of said seeds.

-jobs created

## Compare and Contrast Different products available from Canada

Since there are so many varieties of basil, it makes more sense to compare basil over all to a different crop than comparing all the varieties of basil with one another. A very comparable crop to basil is Kale. Kale is a crop that is known for health benefits and being extremely high in specific vitamins and minerals.

#### Transportation of Basil Seeds from Canada to Nepal

Due to the light weight of basil seeds and density they can be packaged in they can be shipped in a relatively small container even compared to larger seeds such as corn or soybeans. Since they are so easy to ship there are a variety of options available for shipping basil seeds to Nepal. Ritchers is Toronto based company, there for the most logical place to ship the seeds from Canada is the Pearson International Airport in Toronto. The bags of seeds that are one kilogram a piece could be stacked onto skids to make maneuverability less of an issue. Skids could then be loaded onto the plane which would take them to the India, likely the airport in Katmandu would be the least expensive. An exact cost of shipping is difficult to estimate due to the constant fluctuation in prices and the regulations each company and country has with the importing/exporting of seeds and live materials.

## **Documentation Required**

One issue with exporting seeds out of Canada is that there is a complicated process that involves much paper work and occasionally some research. The Canadian Food Inspection Agency (CFIA) is responsible for facilitating the programs that deal with the authorization of exporting and importing seeds. Only specific seeds are allowed to be exported and if they are, only a limited amount can be released from Canadian borders. This entire process can be frustrating for both the importing and exporting companies and can be enough of a deterrent to abort exportation plans.

#### **Benefits to Nepal**

There are a number of benefits to Nepal if they chose to import Canadian basil seeds. Firstly, basil will provide farmers with an alternate source of income aside from their livestock

and other crops, and since basil can be grown so densely there is little land needed to be a profitable crop. Secondly, Nepal has a very limited diet and the introduction of basil will bring about a variety of dishes and recipes which will satisfy both the Nepalese people and tourists alike. Another benefit to Nepal is that the soil structure and composition will improve. Since only the leaves of basil are harvested, the stalks and roots will decompose into the soil and thereby adding nutrients and organic matter to a sometimes poorly maintained soil system. If basil is grown at a large scale on some farms increased labour could be needed to plant, maintain, harvest, and sometimes dehydrate the basil. The basil seeds would likely be purchased by a seed distributor in Nepal who would then resell the seeds to Nepalese farmers. This exchanging of goods and the service provided will increase cash flow in the Nepalese economy therefore improving and expanding investments and strengthening the economy overall.

## **Introduction to Nepal**

Nepal is a land locked country bordered by China and India on all sides. The population of Nepal is approximately 28 million. with an area of just under 150,000 square kilometers. The country is about 800km long and 200km in width. Nepal is a fairly poor country and after suffering from an earthquake in 2015 the country is in need of charity and assistance. With Nepal being under the poverty line there is not much help from within the country it self so there is much outside support needed in order to get back on its feet.

The primary industry in Nepal is agriculture with approximately 70% of the population some how involved in agriculture and 28% of the land used for farming. Agriculture is responsible for 38% of the countries Gross Domestic Product. The landmass of Nepal is divided into three main agro-ecological regions. One being the mountain region that makes up 35% of the land mass and is not suitable for agriculture. The next region is known as the hills and makes

up 42% of the land mass. This region is used to produce fruits and vegetables as well as some livestock. The soil in the hill region is mostly a sandy loam and clay loam. About 29% of the hill are irrigated. Transportation in the hill region is still fairly limited and livestock are the only reliable modes of transportation through the hills as there are not many roads. The Terai is the most southern region and contains the majority of the countries population. The terai region is responsible for the majority of the agriculture in the country due to its flat land and fertile soil where grains and higher quality crops can be grown. The terai region is the most suitable for the growth of basil seeds due to the climate and farming practices currently used in the region.

## Who will purchase the Product?

Canadian basil seeds will be primarily marketed to the farmers of the Teria region as well as those in the southern region of the hills. The primary reason for selecting these agroecological regions is due to the mildness of the climate since basil does not yield very well in cold climates and is sensitive to frost.

#### Cost, Labour, and Sales Associated with the Product

The packages of seeds that are sold by Ritchers for Rubin Basil cost 765 dollars for a one kilogram bag without the cost of shipping. There are other, less expensive varieties of basil available from Rithcers, however these varieties are not as conducive to the Nepalese growing conditions. The labour involved in the production of basil is very similar to that of tobacco. The seeds must be planted, maintained, and harvest and for the most part (especially in Nepal) by hand. If the seeds were to be redistributed in Nepal by a seed dealer then the price of the seeds would further increase, making the seeds extremely expensive.

#### **Competitive Products from Other Nations**

Basil is not a very largely grown crop in Canada and is a relatively small industry compared to typical cash crops. Many other countries around the world grow basil including India and China. This provides a very competitive market for Canadian basil, because the most expensive part of importing basil from Canada is the shipping cost. These costs could be dramatically reduced if the basil were imported from India or China. There is little difference in quality from Canadian basil to Indian or Chinese basil in terms that would effect a Nepalese farmer.

### Recommendations to help potential Canadian exporting company in the future

One recommendation I would provide to the exporting company to make shipping logistics much simpler would be to increase the size of the seed bags from their largest available option which is 1kg, to the standard 45 kg bag. However, this would make the seed extremely expensive for any one in Nepal to purchase. In order to reduce cost for farmers, Ritchers could potentially sell Nepal seeds that are of a lesser grade then the ones provided to the average consumers. A more affordable option than the current ones provided would be a more feasible option than the ones that are currently offered by Ritchers would be a good idea considering the poverty found in Nepal to make the growing of basil a more realistic option for the average Nepalese farmers.

## **Future Studies Required**

Future studies of basil in Nepal would involve the cost of shipping the seeds from Canada to Nepal and comparing this to the lucrativeness of basil for Nepalese farmers. Some questions that need answering are: is it worth it for a farmer in Nepal to buy Canadian basil seeds, or

should they focus more on local crops currently being grown? Is there an market opportunity for basil to be sold in Nepal, or would the basil be exported to other countries such as India? DO Nepalese farmer see a potential for basil to have a place in their crop rotation or on their farm land? The opinion of Nepalese farmers is just as critical as the exporting company. On what scale, would basil be grown, in back yards, or in large acreages in cash crop operations? Are Nepalese concerned with the organic quality of most Canadian basil? as it increases the price of the product and has little effect on how the Nepalese would grow or market the product.

#### Conclusion

In conclusion, it would make sense that basil seeds from Canada would not be sent to Nepal as it is just too costly for the average Nepalese farmer to afford. Although it would not be difficult for a Nepalese farmer to learn how to grow basil and be successful at doing so, it is just not a feasible option for farmers to invest in. the return for farmers would out weigh the cost of the initial input however the upfront cost is too high for the average farmer to justify. Also the extra effort associated with the regulations in exporting seeds with regards to the CFIA. This is a very difficult process to go through for an exporting company and the complicated logistics are to large of a negative that out weigh the positives of possible business expansion. Further research would be required to determine if these estimations are true, however it is estimated that exporting Canadian basil seeds to Nepal is not a recommended option, especially considering that both India and China are producers of basil and it would be much more affordable for Nepal to import from these countries.

#### References

- Chapagain, T. (Presenter). (2016, September 15). Agriculture and Agri-Food Systems in Nepal. Speech presented at University of Guelph, Guelph, On/Canada
- Gattuso Media Design. (n.d.). FOOD CHOICES: ORGANIC VS. NON ORGANIC AND GMOS.

Retrieved November 29, 2016, from Basil Bandwagon website: http://basilbandwagon.com/2016/10/11/organicvsgmo/

- Kennedy, D. (2011, October 27). Nitrogen Fixing Plants. Retrieved November 29, 2016, from Vegitariat website: http://www.vegetariat.com/2011/10/nitrogen-fixing-natives/
- Priesnitz, W. (n.d.). Basil: King of the Herb Garden Everything You Need to Know to Grow and Use Basil. Retrieved October 18, 2016, from Natural Life Magazine website: http://www.life.ca/naturallife/0104/basil\_king\_of\_the\_herb\_garden.htm
- Ritcher, O. (n.d.). Welcome to the GrowerZone. Retrieved November 29, 2016, from Ritchers website: https://www.richters.com/show.cgi?page=Growers/growerzonemain.html
- Thomas B.R. (n.d.). Basil: Planting, growing, and harvesting basil. Retrieved November 29, 2016, from The Old Farmers Almanac website: <a href="http://www.almanac.com/plant/basil">http://www.almanac.com/plant/basil</a>

American Optometric Association (2015) *Lutein & Zeaxanthin* St Louis, MO: American Optometric Association