Canada-Nepal Agri-Food Final Paper

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Part I-Product Information:

Canadian wheat is just one of the many crops grown in Canada. Besides wheat, soybeans, corn and canola are also produced here. Looking at the country Nepal, we understand the climate, temperature and weather patterns. With this information it helps us decide which crop will excel the best in those conditions. For this report, I will be marketing and explaining the benefits of winter wheat to the country Nepal. There are many different types of winter wheat available in Canada. Each variety of wheat gives it own end product (flour, bread etc.), depending on the nutritional value within the wheat. The general growth cycle of winter wheat begins when it is planted as early as September to as late as November. Over the winter months, the wheat enters a vegetative state, until spring returns. In the spring, winter wheat begins to grow. Finally in late July, early August the wheat is mature and is ready to be harvested. There are many different uses of wheat once it is processed. Throughout the rest of this paper, there will be critical evaluations of the product, and the export potential to Nepal.

Product Information:

To begin, winter wheat is a very important crop grown in Canada today. It was first grown by pioneers, leading to the opening of agriculture areas in Canada in the 1800's (Goodwin, 2005). The main growing areas of wheat are the western provinces and eastern Ontario (Dexter, Preston, Woodbeck, 2006). These places are the ideal areas to grow wheat because of the climate and growing environment. Winter wheat can be grown on various types of soils, but it is best suited to well drained soil that has not been seeded to the crop in the year prior (Goodwin, 2005). When deciding which wheat there are two categories, spring wheat which is planted mainly in the prairie regions and winter wheat

which is fall planted is usually found in the warm, southwestern region of Ontario (Goodwin, 2005). Winter wheat is able to stand harsh winters, because it goes into a vegetative state during the winter months, causing the crop to be unharmed. When spring returns, the crop continues to grow until it reaches maturity in late July, early August. When it reaches maturity it is harvested then processed, to become various products. Due to this ability it allows for the crop to be successful in Canada.

There are many different types of spring and winter wheat. Some types include: western red spring, prairie spring red, prairie spring white, western extra strong, western amber durum, western soft white spring and western red winter (Goodwin, 2005). Depending on the company, determines which types of seeds are available.

Canadian Company:

C&M Seeds is a Canadian company that is located in Palmerston Ontario. This company began its operations in 1978 from the families Cameron and McLaughlin, hence the name "C&M Seeds" (C&M Seeds, 2013). These two families already produced pedigreed seed so choosing the seed industry was only natural. (C&M Seeds, 2013). This company's customers include the local farmers and Co-ops in the Midwestern Ontario region. By, staying local it has allowed this company to have a strong and trusting relationship with its farmers. (C&M Seeds, 2013). With continued support and their great reputation from the farmers, it has allowed for the company to have over 250 respected dealers, and still growing. Which in turn will, expand the number of jobs benefiting more people. Finally their mission is to push the advancement in agriculture and the rural economy of Ontario. With the continued advancements in the seeds genetics, and strong

push on the marketing varieties, C&M Seeds are willing to do everything they can to make agriculture and crop production a prosperous venture for all farmers (C&M Seeds).

Varieties that C&M Seeds carries for winter wheat include: Hard Red Winter, Hard White Winter and Soft Red Winter. For each main variety, there are different types each with its own characteristics. Focusing on just the Hard Red winter variety, the crop is planted in the fall, and harvested in July or August. Contains Protein premiums and higher pricing makes it attractive to wheat growers (C&M Seeds). Most types for Hard Red Winter wheat have great yields, good resistance to leaf disease and suited to all winter wheat growing areas (C&M Seeds). The cost of hard red winter wheat seed depends, whether the customer buys seed from company or uses seed from their previous crop. For example, if the farmer uses his seed from the previous year and gets it cleaned and treated it can cost $35 to $50 an acre. However if the farmer chooses to buy new Certified Seed with a high performance level of seed treatment it can cost $70 to $100 an acre depending of the seeding rate desired (Meulensteen, 2014). Generally there is no drastic change in cost between varieties at the most it would be $1 to $2 more per acre. The only downfall about this company is that it does not export to other countries. C&M Seeds however, has sub-license agreements for other companies to seed their product brand in other areas of Canada (Meulensteen, 2014).

Processing:

The processing stage begins after the wheat is harvested. After the wheat has been combined, it is sent to the grain elevators. At the elevators the wheat will be held there, so it reaches and stays at the proper moisture content and temperature (Meulensteen, 2014). While at the elevators, the company will in turn sell the wheat to the end users. Most end

users are buyers for animal feed companies however some of the wheat can be bought to be ground into flour for baking purposes. (Meulensteen, 2014). For most processing stages the cost is equal. There is the change the cost depending on what the users want to do with the seed. In conclusion the processing stage is a quick but important step within the marketing system.

End Products and Nutritional Information:

After the seed is purchased from the elevators, it can be used for various products. There are a few factors that decide what products can be made from each different type. Wheat is considered a "Whole Grain." In the case of being a whole grain, the grain can be eaten as a whole, cracked, split or ground. It can also be milled into flour and then used for various breads, pastas, cereals and other products (Healthy Grains, [no date]). Focusing on the hard red winter wheat variety, we look at the nutritional value of the seed. This particular seed has a very low count in saturated fat, cholesterol, and sodium, along with a high amount of dietary fibre, with good amounts of manganese and selenium (Condè Nast, 2014). Eating meals with whole grains boosts, can benefit people from getting heart diseases because it is naturally low in cholesterol (Healthy Grains, [no date]). Overall, red hard winter wheat is very nutritional wheat to use for food products.

Machinery Required:

Machinery required for winter wheat, isn't very much. First, some type of seed drill is required for planting. There a various types of machinery that operate in No-Tillage or Conventional Tillage (Meulensteen, 2014). No-Till drills seem to be a common piece of equipment for planting. The average cost for planting is $21 per acre on top of that the farmer will face a charge of fertilizer. This cost can range from $120 to $150 per

acre, depending on the management style, and base fertility level in the soil. (Meulensteen, 2014). When the wheat becomes mature it is ready to be harvested. To harvest, most farmers today use combines for machinery. Once again the cost depends on the amount of time and fuel used. From there a final cost is decided.

Labour Required:

Labour required, cost and issues that come from growing hard red winter wheat include, the crop being seasonal and the cost of planting. For not only hard red winter wheat, but for all types of winter wheat it can only be planted in the autumn months. If the seed is not planted during this time frame, the crop will not exist due to drastic temperature changes. Other disadvantages include, is that the wheat cannot be grown on poorly drained soils, and it cannot be grown in western Canada or northern Ontario because the temperatures are too cold for the wheat to survive (Meulensteen, 2014). Cost to plant is another disadvantage depending on how many acres the farmer plans to grow. On top of planting there is the cost of fertilizers and herbicides to help the crop succeed. Finally the farmer would face harvesting, and fuel used charges. Along with any processing charges, such as drying the wheat because of high moisture content. These are some of the challenges included with growing hard red winter wheat.

Marketing:

Market opportunities for winter wheat is endless. Crop farmers would have a better market opportunity if they buy Certified wheat seed, from a company. This way, there is reassurance to how the seed was treated and cleaned (Meulsteen, 2014). Where as if a farmer was to keep seed from previous crops, it would be up to them to have it cleaned and treated, so it is safe and free of disease. It is better for the farmer to purchase

seed straight from the company, so he can avoid any hassles that might come from his own seed. Further more, with continued support from the government it allows industries such as the Ontario Cereal Industry Research Council (OCIRC), to continue their research of different wheat varieties and come up with other products available from wheat (Agriculture Canada, 2014). Within this industry they are seeking to find new markets opportunities. Researchers are studying traits of wheat, and how different milling techniques will enhance the end product (Agriculture Canada, 2014). One of the end goals that this industry has, is to have farmers benefiting from the newly developed seed. Finally they are also seeking the ability to meet the buyer's preferences (Agriculture Canada, 2014). The marketing aspect for winter wheat will always be changing due to the advancements in genetics and research conducted.

Benefits To Canada:

Winter wheat provides many advantages and benefits to farmers and Canada. Starting off with increasing job opportunities. C&M Seeds already have 250 respected dealers across Canada (C&M Seeds, 2013). With continued support of this company, they will be looking to keep growing and be sure it succeeds in the future. As the company grows, more jobs will be created; mainly sale persons, however experts, researchers, different types of managers for the genetics or plants, even shipping and receiving people will be required. The more operations and expansions this company makes, the number of jobs will increase. Next, any type of winter wheat is weather resistant. For, the most part winter wheat can survive any winter where the weather doesn't become serve and cold. As mentioned before, winter wheat goes into a vegetative state during the winter and continues its growth in the spring. Competitive advantage is

another key benefit for winter wheat. The crop efficiently uses spring moisture, giving it a growing benefit. Also, since the plant starts its growth so early in the spring, it beats the spring weeds giving itself a head start (Japp, 2013). There are also the growing trends, from producing winter wheat. Studies have shown that many types of winter wheat provide high yields, especially Priesley, Gallus which carry the highest yields within C&M Seeds hard red winter seed (C&M Seeds, 2013). Not only does winter wheat have competitive advantages, weather resistance and positive growing trends, it allow saves money! That's right, because the crop begins its growth so early in the spring it allows for it to beat the spring weeds and pests, saving farmers a spring herbicide application most of the time (Japp, 2013). Winter wheat is a great crop to use for crop rotation, for farmers. By rotating crops it improves soil so it is healthier, providing a better growing season, instead of growing the same crop for many years in a row (Meulensteen, 2014). When farmers decide to grow winter wheat they are able to maximize the return on the investment of manpower and equipment. An added bonus would be having the equipment and people available for months of the year (Meulensteen, 2014). The benefits, to the farmer and Canada are endless making winter wheat a great crop to invest in.

Environment Sustainability:

Environment sustainability within Canada for this crop is evident. Looking into the future for the crop there is to endless opportunities for growth and development. This can range anywhere from genetics to marketing and products. The only downfall for most farmers in choosing this crop is the weather in a certain area (Meulensteen, 2014). Winter wheat has not been improved enough to survive extremely harsh winters. Most farmers

have interest and intention of growing winter wheat each year, however the weather influences this decision (Meulensteen, 2014).

In conclusion, after analyzing and critically evaluating the different aspects of the product winter wheat, it provides a better understanding about the product, marketing values, costs and benefits. Winter wheat has always been an important crop in Canada, because it provides many different products and comprising over 10 million hectares of land (Goodwin 2005). With continued advancements in the genetics and marketing of winter wheat it will only continue to succeed and prosper in the future.

Part II-Export Potential To Nepal:

There will now be a critical evaluation of the export potential of winter wheat to the country Nepal. After viewing the country's geographical regions, climate regions, trade systems, potential buyers and marketing systems. It will show how winter wheat can benefit Nepal.

Country Information:

Nepal is located in South Asia the north end of the country borders China while the south, west and east is surrounded by India (AgTrade, [no date]). Within this country there are three geographic sections. These include: lowlands plains (Terai), hill region (Pahad) and the mountain region (Parbat). There are also five climate zones as well, they are: tropical/subtropical zone, temperate zone, cold zone, subarctic zone and the arctic zone (AgTrade, [no date]). The lowland plains are comprised of tropical savannas, grasslands, valleys and foothills. The hill regions contain more mountain ranges, and sub-tropical river valleys occupy the southern end of this region (AgTrade, [no date]). In the south end of the country, they usually experience warm, tropical summers and mild

winters. Where as in the north end the weather consists of cool summers and serve winters (Naturally Nepal, 2012). Since winter wheat varieties are weather resistant, and they are able to survive most winters, however they are not able to handle the extreme cold temperatures that would be found in the sub arctic or arctic zone. That would be one disadvantage to the crop, when being exported to Nepal.

Needs and Benefits To People:

Benefits for the Nepal woman and children would include, the nutrition value of the different varieties of winter wheat. For all winter wheat types, it is considered to be a "Whole Grain." Since it is a whole grain it can be milled, split or eaten whole (Healthy Grains, [no date]). Whole grains are rich in dietary fiber, which aids in digestion. Looking at a particular winter wheat, hard red winter. This wheat has extremely great nutritional value. It has a low count in cholesterol this will help reduce heart diseases, as well as saturated fat, and sodium. Since red wheat has this nutritional value, it will benefit the children and women of Nepal.

Environmental Benefits:

Nepal farmers would find great benefits from importing winter wheat and growing the product. First off, winter wheat is an easy product for the farmers to plant and grow. As mentioned before, winter wheat enters a vegetative state during winter and continues growth in the spring. So, in terms of benefiting the farmers, they would plant the wheat in the fall, and then they are able to rest over the winter months. When spring finally comes, the farmers are able to put focus on other sources of planting and work, because help and equipment will be free (Meulensteen, 2014). Another benefit that these farmers would come across is how rotating their fields with different crops will allow for

a healthier soil to form, therefore improving their crop production in future years (Meulensteen, 2014). In Canada, farmers that plant winter wheat are able to maximize their investment if this is the case Nepal farmers should have the same benefit (Meulensteen, 2014). The common benefits found within Canada, will apply to Nepal as well.

Transportation Logistics:

Transportation of winter wheat seed to would begin, when the company or a farmer ships the wheat or seed to a grain elevator. From the elevator, companies will purchase seed to create other products, such as flour. Located in Ontario Canada, there is the Welland Canal. When the winter wheat seed is purchased by an importing nation, the seed would be loaded onto a ship, and shipped to the importing country. Since Nepal does not have any sea ports, the ship would be docked in India (Khanal, 2014). From India to Nepal, it is twenty-five kilometers. (Khanal 2014). So, when the ships dock in India, the seed would then be transfer to trucks, and transported to the markets or farmers within Nepal. This would be the transportation map of winter wheat seed from Canada to Nepal.

Marketing Strategy:

To market winter wheat, specifically hard red winter in Nepal they should talk about the benefits, growth cycle, products etc. Any type of winter wheat is planted in the autumn and harvested in late July or early August. The unique thing about winter wheat is that farmer's plant it in the fall, instead of pushing to have it planted in the spring. As talked about before, having the seed planted in the fall allows for the equipment and labour help to be free for other busy months of the year (Meulensteen, 2014). Next, most

farmers in Nepal will be able to make back all the money invested in growing the crop. If the farmers choose to grow red hard winter they will find great nutritional value from it. However, most of the benefits and products have been list previously above. By explaining the great benefits, growth and possible products will all lead to the marketing and selling of this product.

Cost Analysis:

Cost is one of the most important topics for the potential of marketing this idea in Nepal. Going back to the planting and seed cost lets analyze it again. Certified seed can be purchase from seed companies. Now, depending on how many acres farmers want to plant, decides the cost. Certified, high performance level seed has a going rate of $70 to $100 per acre (Meulensteen, 2014). Now, on top of just buying seed there will be a cost of fertilizer which can range from $120-$150 per acre. However this depends on the growers management style and the base fertility level in the soil (Meulenstenn, 2014). By now the farmer is up to $250 per acre at most. If the farmer does not have the equipment required to plant they can have planting done for $21 per acre. (Meulensteen, 2014). These would be all the costs involved with growing the crop. Once the crop is harvested there would be a cost for the grain elevator use and the harvesting stage. To ship the seed to different country, that would also place an expense. It is easily seen that the potential of marketing this crop in Nepal is getting expensive. Since the expense is a key factor to farmers in Nepal, this product maybe better suited for the richer farmers or have it be a group investment. This cost analysis has shown that Nepal importing this crop seed, will cause a major expense for the farmers, which would eliminate small family farms and only leave the richer and bigger farms to expand.

Overall Recommendation of Product:

In conclusion, I would recommend this product to be exported to Nepal. This product may cause some expenses in the beginning however most farmers are able to make back the investments in the product. For hard red winter wheat, it provides a great source of nutrition for consumers, and a numerous amount of potential products from the harvested wheat. It's certainly a product that has the ability to grow and develop in future years to come!

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