

Nepalese Beer

Introduction

Craft Beer Industry: Canada

Canadian beer and liquor sales in the 2013 fiscal year totalled \$21.4 billion, \$9.1 billion of which was for beer (Statistics Canada, 2014). Beer has remained the drink of choice for Canadians, who consumed approximately 2.3 billion litres of beer in 2013. Over a 10 year period, market share of domestic beer has declined from 91% in 2003 to 86% in 2013 (Statistics Canada, 2014). This trend stems from the growing popularity of niche beers and craft beers, as Canadians are demanding more variety in the beer consumption rather than a greater quantity. Beer consumption per capita has declined slightly from 83.6 litres in 2003 to 78 litres in 2013, some of which are consumers shifting towards consumption of wine and spirits (Statistics Canada, 2014). Canadians have shifted their consumption choices towards can beer which represents a 47% share of the market in 2013 versus 43% for bottles (Beer Canada, 2014). This has important implications for packaging decisions when designing a product to be sold in Canada.

Canada's beer industry is thriving. According to Small Business Accelerator (SBA, 2014), roughly 10 million Canadians drink beer. In recent years Canadian consumers have been increasingly demanding craft beers -- that is, beers produced by craft breweries and microbreweries in small batches, that are usually limited to 10,000 barrels per year (SBA, 2014). While much of this craft beer has been produced domestically, increases in imported beer suggest that Canadians are also consuming craft beers from other countries. People are moving away from "name brand" beers to smaller companies that specialize in niche beers and emphasize quality (SBA, 2014).

When proposing a new product for import, it is important to understand the regulations and demand of the market space that one is entering. The Canadian alcohol market is highly regulated so imports of liquor, wine, and beer require prior authorization by the appropriate provincial commission before customs will clear the shipment (Foreign Affairs, Trade and Development Canada, 2014). Since the market is controlled provincially, initial attempts to penetrate the Canadian market should focus on the geographic areas that contain the appropriate demographic, namely the provinces of Ontario and British Columbia.

British Columbia (BC) has seen a surge in the number of microbreweries. In 2009, Statistics Canada reported 209 breweries in Canada, 49 of these were in BC. Sales of small batch craft beer in BC has risen from 6.4% in 2007 to 12.7% in 2011 (SBA, 2014). Similarly, the craft beer industry in Ontario has seen rapid growth. In Ontario, craft brewers market share has more than doubled since 2002 rising from less than 2% to almost 5% of beer consumption by volume (Ontario Business Report, 2012).

The small batch beer industries tremendous growth has created secondary benefits that support the local economy. In Ontario, the microbrewery industry accounts for 600 direct jobs (or 20% of the brewing industry employment), while estimates of indirect jobs and benefits to farmers and local communities have not been tallied, but are expected to be significant (Ontario Business Report, 2012). If one translates the success in Ontario and BC to production of craft beer in Nepal (for the purposes of export to Canada), one can see that the partnership will not only benefit local farmers, but also provide jobs and skills opportunities for the rural landless.

Nepal Production of Craft Beer for Export

Nepal is famous for a local beer made from finger-millet (*Eleusine coracana* L.), a common grain used in the diets of some Nepalese people. Finger-millet is a tall grass with a head consisting of many small seeds; it will grow where other crops typically fail and thus lends itself well to the harsh climate of the high regions in Nepal (CGIAR, 2014). Finger millet is consumed in many forms including cakes, puddings, porridges, and beer. An advantage of finger millet beer is that it is gluten free.

Creating a viable microbrewery in Nepal will require careful, strategic coordination as the business will be heavily vertically integrated. That is, the brewery plays an important role in ensuring demands for local millet consumption are met while meeting the brewery's production requirements. Production of finger-millet in Nepal has remained very consistent. According to the United States Department of Agriculture, 250,000 metric tonnes of finger-millet are produced each year since 1999 (Index Mundi, 2014). The brewery will work closely with the producers to ensure production is maximized and thus creates surpluses for contracted sale to the brewery. Investments in storage facilities need to be made to reduce supply variability from seasonality of the finger-millet harvest as farmers do not have the capacity to store their production on farm.

Ensuring that small-holder farmers in Nepal can achieve surpluses, can be attained by focusing on educating farmers on superior growing techniques. A USDA (2011) report on *Integrated Weed Management for Maize-fingermillet Production Systems of the Mid-hills of Nepal* suggests that there must be a renewed focus on the effects of extreme climate conditions and weed management to increase production in Nepal. Finger millet can be planted as an effective intercrop, usually paired with maize, which make up a large portion of the Nepalese diet (CGIR, 2014).

One of the most crucial elements to success will be to utilize advanced breeding methods to attain more desirable genetic traits, thus supplying the desired surpluses for brewing. New varieties should have shorter stems so that wind and rain will be less likely to damage the crop, and it is more able to withstand low rainfall and disease than unimproved varieties (CGIAR, 2014). These advancements must focus on increasing finger millet production within its commonly intercropped environment (failing to recognize intercropping will mean research efforts are misguided, as the finger-millet will not likely be mono-cropped). This method will also allow greater numbers of hillside farmers to access the improved varieties

The company's focus on enhanced breeding, distribution, and education have numerous direct benefits, however there are many secondary benefits. (i) Finger-millet is nutritious, it contains proteins, minerals, vitamins and micronutrients. (ii) Higher incomes from sale of surpluses to the brewery will provide the farmers with increased incomes, which can directly impact their ability to access more nutritious food and, make investments in the productivity of their farm (such as terracing). (iii) Research and innovation for the purposes of producing finger-millet for beer will help reduce the variability of annual yields, which will simultaneously improve the quality of finger-millet kept for personal consumption, thus improving food security for the farmers.

Conclusion

Bilateral trade of finger-millet beer between Nepal and Canada can meet Canadian demand for niche beers and simultaneously improve quality of life for Nepalese small-holder farmers. Canadian buyers must be accessed through the provincial liquor boards with an emphasis on the Ontario and BC markets for the most effective market penetration.

Modifications must be made to local Nepalese recipes to satisfy Canadian tastes. At the same

time investments into brewing facilities in Nepal must consider all factors of production to ensure the system is sustainable and does not bring detriment to the small-holder farmers.

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