

Final Paper
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Fagopyrum esculentum or Buckwheat as most of the world calls it is a staple food in many countries, especially those in the Middle East and Asia (WholeGrain Council, 2013). Buckwheat has been apart of the human culture for 8000 years and around 4000 years ago it became a cultivated crop grown by farmers (WholeGrain Council, 2013). From being around so long, man kind have found ways to utilized this crop and making use of all aspects of it in foods and fibre products.

From the start of cultivating crops, everything was all hand done from seeding to harvest. Through experimenting and more understanding of the how things work and finding better ways to create a product that will satisfies the needs of the period of time. One if the inventions were a grain cleaner. The idea behind a grain cleaner is as what the name says, it cleans grain from undesired particles. This is achieved by sifting through the whole product, which is the entire haul from the field, and removed different sized particles. Setting up the grain cleaner to keep the size of the current grain by keeping the grain the main section of the cleaner until the end. The principal is really simple as the grain passes through the whole machine. Having a slightly large 1st screen, compared to desired grain, to remove all the large particles. As the grain progresses through the cleaner, it will reach a spot where the screen is slightly smaller. This will remove all small particles. In theory, you should have no other pieces of anything in the end product. The only issue with this style cleaner is if the grain is the same size as the particles you are trying to clean out.

Product Information

The cleaner of choice is the “Market Grain Cleaner” by Flaman (Photo 1). It is a company from Saskatchewan that has two locations in Saskatoon and Southey. They have 9 team members that run the operation. Warren Schmidt is the division manager and works with Mitch Flaman in sales and marketing (Flaman, 2014). Roy Ritchie and Jeff Aitrogge are their lead-specialist in grain cleaning and screens (Flaman, 2014). Ross Empey, Sheldon Ball, Kayla Nemanishen, Gerwin Dalagin, and Wency Mendoza comprise the rest of their team (Flaman, 2014). The contact number for Flaman is (306) 934-2121 (Flaman, 2014). This company does have a foundation to “help providing the basic needs of life for children and family around the world”(Flaman, 2014). They do also donate to many charities with the same line of thinking for helping others in different countries. It has a 1000-bushel and hour capacity and uses only 5 HP to operate (Flaman, 2014). It is a pull type unit and will be able to be moved around to where ever it is needed if it is in the field or to be delivered to different farmers if they share the costs.

The Market Grain Cleaner only benefit is having is that it promotes Canadian job in Saskatchewan. From the demand of exporting this product is very moderate as this is a sale that would last around 20 years. What I mean by that is this machine as a life expectancy of 20 years (Flaman, 2014). They do service their parts for any repairs that may come up. This would be on the purchaser to do the repair, as it would be way too much to travel over to where ever the cleaner is. This issue could be a deal breaker compared to other companies that are located in more than one

country. Some components are building out of country like the motors and electrical wiring (Flaman, 2014). Depending on the price of steel depends if it is Canadian steel or not but the assembly is all-Canadian done (Flaman, 2014). There are some foreign completion from china and other Asian companies that have a matched price or below the price of \$5000 (approximate) cost of the Market Grain cleaner (Flaman, 2014). The model “5XZC-3A small grain cleaner” is an Asian match to our price that is in the park of \$4,300 to \$4,900 USD (AliBaba, 2014).

Critical analysis

Nepal is a country where you don't grow food to make money. The family whom resides on it utilizes every single useable part of the land to create food for the entire year. This completely changes the way of thinking when it comes to a cropping system to them. It does always keep in mind maximizing yield and keeping a quality of the food grown but it's when the land is done growing one crop, another is planted right away if not already before the harvest of the pervious crop. North American farming is setup completely different from the Nepal Farming practices as NA (North American) farmers sell their crop for money and in return buys food with that money. On top of that, they have a smaller percent of income that goes towards food leaving money for investing in equipment to make more money or make a practice more efficient and from that saving money (Khanal, 2014). Compared to Canadians who only have 10% of earnings that go towards food (see chart 1). Nepal farmers do not have much disposable income if any. This makes purchasing

anything almost an impossible act. They tend to trade surplus food for other items that are required to survive. There is a huge hump that Nepalese farmers need to get over to create an income on top of food produced for life. Once they have reached that, possibilities are endless for what the community will do. The best way a farmer can create more money to spend is by have more yield in the field or less waste after it comes off and put into storage. But in order to be able to do something like this is by investing into an idea to be able to make more food or save more food.

The target for this grain cleaner would be a wealthier farmer in Nepal (if there is some) or a community that is willing enough to put food quality and clean seed for replant in a priority that the cost would not be as much in Value. This is a small market for my product but it is a product that can service a large area of farmers quickly. The Target crop for the grain cleaner is buckwheat. Buckwheat can mature in around 90 days after planting (Nepal Agricultural & Forestry Pvt. Ltd, 2014).

Nepalese people used buckwheat for its flour, which they use in Roti, Chapade, and Dhido (Nepal Agricultural & Forestry Pvt. Ltd, 2014). Fibres from the stalk can be used to weave baskets like other types of fibres produced in Nepal. The Nepalese people are vary useful of all parts of the plant as resources are very minimal.

Getting the grain cleaner across the ocean into Nepal will take some planning the machine will be shipped to Vancouver from either of the two locations in Saskatchewan by transport truck already loaded in the ocean container. You will be able to fit 10 of these units into an ocean container according to its dimensions and

compared to ones in Alibaba (AliBaba, 2014). This will reduce shipping's cost to how ever many up to 10. After it is loaded onto a ocean freighter, it will travel to Haldia, India where it will be offloaded at their port. At that point it will be loaded on a transport truck again and be delivered to pre-arranged location.

The do have the upper hand in transportation as they can deliver the cleaner by transport truck solely. As a country that is from across the ocean, we do have to transport by a large barge in ocean container as well as transport freight in both countries if shipping across an ocean.

I expect only to sell maybe one ocean container full of grain cleaners to Nepal, which is only 10 units. With the expectation of only selling 10 units to Nepal, I do not think the Market grain cleaner is the right choice of product to bring to Nepal from Canada. Having China and all these other countries that supply Canada with products next door makes it extremely hard to product a cheap product, ship it over, and make it all worth while for the purchaser. The unit price is way too much for one farmer over there can afford. Getting a community to purchase a grain cleaner is more likely than one person to purchase but still very unlikely. A farmer there could make a homemade version with a few branches and some chicken wire and manually shake all the bushels by hand. This is the most time consuming way but they do have the time in the off-season to do it. Also Nepalese farmers don't all have access to hydro. This means only the ones with access to hydro or has a generator of some sort have the option of purchasing it. From those few farmers then have the extra money to purchase a unit like this for \$5,000 is more than unlikely. I am not

sure what the standard hydro voltage or amperage is. This is an additional potential cost in what motor is installed. If it is different to Canada's standard hydro type, this could mean an expensive motor that does no more than the ones we have available. Petrol and Diesel are very hard to come by in Nepal, as they are pricey commodity (Khanal, 2014). If you do have a generator to produce hydro, would it be worth it to them to use on a grain cleaner? Maybe they have better, more value use to them to ration the fuels out.

Shipping costs are as much as the unit is it's self. Even though to make money you need to invest into something to either save your money or make you have more products to earn you more money, it's really hard for a person, company, or an operation to make that initial step to advance them selves in the production. It is the theatrical hill that once you get over; it's all down hill easy from then. You may come across a few bend or bumps in the road but it's way easier than climbing the hill.

The only way for Nepalese farmer to purchase this grain cleaner from Flaman is to have a even more small scale unit that could be run by a crank instead of a motor to eliminate the use of hydro electricity. This machine can run 1000 bushels through it in a hour (Flaman, 2014). It could be reduced by one eighth and become a perfect size unit for Nepalese farmers. If this translates into price, this grain cleaner could be purchased for \$625. This price is more manageable for low-income producers.

My market plan would still be the same for whom purchases the grain cleaner.

Having a community purchasing the unit would be the best for everyone who invested into the unit. For any unseen costs would make it easier for many people to help divide the cost instead of having a sole person with the burden.

In the end, the grain cleaner idea is a great idea. Having clean grain, Buckwheat in this instance, makes all the food produced from it safer as undesired material is removed from it and potentially making it taste better. It would give the farmer the ability to clean next year's seed from broken ones or any other size related deformities. On the other hand, the negative of having such an expensive crop and not having electricity available at all location in Nepal makes this a really hard sell. After all this, I would not recommend this product to be sold to the Nepalese people.

Image 1 (<http://flamangraincleaning.com/products/market-grain-cleaner-50#.VHIHUYeifS4>)



Chart 1 (<http://www.cfa-fca.ca/programs-projects/food-freedom-day-2014>)

Percentage of Disposable Income Spent on Key Expenditures - 2013

	Per Capita* Expenditures (\$)	Percentage of Disposable Income
Food and Beverages (home)	3260.79	10.6%
Tobacco	358.83	1.2%
Housing and Utilities	6420.73	20.8%
Transport	4019.90	13.0%
Recreation and Culture	2422.33	7.9%
Insurance and Financial Services	2337.71	7.6%
Clothing and Footwear	1283.54	4.2%

Sources: CANSIM 380-0067 and 380-0072

* Per capita expenditures and disposable income are determined using a population estimate of the third quarter from Statscan (35,158,304). Source: <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=0510005&paSer=&pattern=&stByVal=1&p1=1&p2=31&tabMode=dataTable&csid=>

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