

# Exporting Canadian Whiskey Distillery Systems to Nepal

Kyle Rutherford

## PART 1 – PRODUCT INFORMATION

### Product Description

The product that I am proposing to export to Nepal, is a Canadian manufactured, whiskey distillery system. This distillery system is manufactured by Specific Mechanical Systems Limited, based out of Saanichton, British Columbia. It is a skid mounted, 240-gallon, all-in-one distillery system, meaning that it includes every piece of equipment required to distill spirits from start to finish on one system (Specific Mechanical Systems, 2016). The 240-gallon system is the most common distillery that Specific Mechanical Systems manufactures (Specific Mechanical Systems, 2016). The distillery system is 19 feet long, 6 feet wide, and 11.5 feet tall (New Liberty Distillery, 2015). The distillery can produce on average, 50,000 cases of liquor per year (M. Jackman, personal communication, November 23, 2016). For easy transport and maneuverability, the entire system is mounted on an aluminum skid, so it can be moved around the facility if required. It is also pre-plumbed and pre-wired, so there is no need to connect every section of the system together. It is designed for facilities with limited room, or inadequate supplies to make an ordinary, non-skid mounted distillery function properly.



[www.specificmechanical.com/](http://www.specificmechanical.com/)

## **Canadian Manufacturer**

The manufacturer of the 240-gallon distillery system is Specific Mechanical Systems Limited, based out of Saanichton, British Columbia. Specific Mechanical is a stainless steel and copper equipment fabricator, specializing in brewery and distillery systems. Established in 1986, the company has built up a reputation in the craft brewing and distilling industry, fabricating over 650 brewing and distilling systems over the past 30 years (Specific Mechanical Systems, 2016). Specific Mechanical also manufactures stainless steel and copper processing equipment for various industries such as dairy, waste water treatment, pulp and paper, oil and gas, biotechnology, and pharmaceutical (Specific Mechanical Systems, 2016).

## **Machinery Required**

The 240-gallon distillery system is manufactured in Specific Mechanical's 44,000 square foot manufacturing and design facility (Specific Mechanical Systems, 2016). The facility features four separate variations of welders, three separate variations of plasma cutters, along with two 5-ton overhead cranes (Specific Mechanical Systems, 2016). A full line of steel shears and rollers are used for the fabrication of each component for the distillery system.

## **Labour Required**

Specific Mechanical employs over 100 people at its design and manufacturing facility (Commerce, 2012). These include welders, engineers, fabricators, designers, and project managers. To fabricate and assemble one 240-gallon distillery system,



<http://specificmechanical.com/>

the project managers usually assign four to five employees to each system. This will be a project that they will work on for two to three months. Once the system is built, employees will then test the system, before it leaves the facility. This is a quality control procedure that is performed on every system that Specific Mechanical manufactures (M. Jackman, personal communications, November 23, 2016). Every component of the system is tested to make sure it is working properly, within the safety requirements (M. Jackman, personal communications, November 23, 2016).

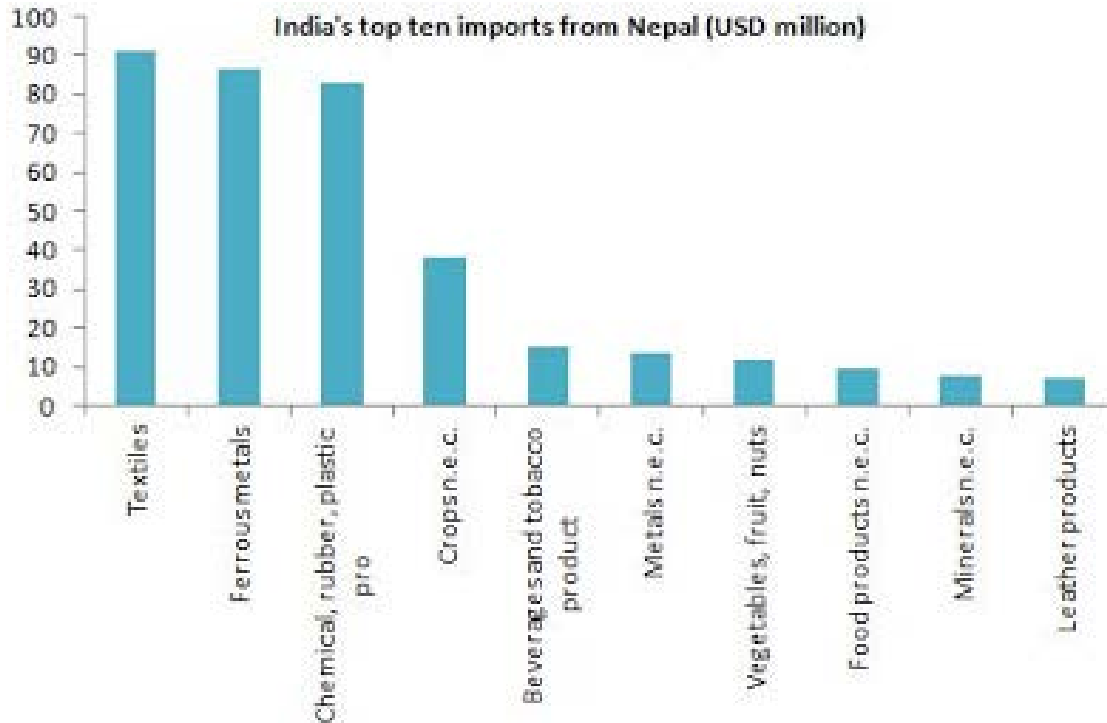
### **Inputs Required**

The 240-gallon distillery system is largely manufactured out of stainless steel and copper. The copper used to build the system is sourced from outside of Canada, in Germany (M. Jackman, personal communications, November 23, 2016). The system also contains carbon and alloy steels, nickel alloys, and titanium (Specific Mechanical Systems, 2016).

### **Market Opportunity**

The market opportunity of the distillery system is relatively limited to larger craft distilleries, however, the products produced from the system can reach a large population of people, such as the local Nepalese, as well as Nepalese citizens across the rest of the country. Tourists could also purchase the products from the distillery, if they were to go on a tour of the facility. As of 2010, Nepal was exporting \$15 million US dollars' worth of beverages and tobacco products to its neighbouring country, India (Sapkota, 2011). The addition of a 240-gallon distilling system in Nepal would mean that the country could potentially increase their exports of the beverages and tobacco products to India. It would also reduce the need to import

alcohol in from other countries as well. The country would be more self-sufficient with an all-in-one distilling system.



<http://sapkotac.blogspot.ca/2011/11/nepals-top-ten-exports-to-and-imports.html>

### **Benefits to Canada**

Exporting the 240-gallon distillery system to Nepal would benefit Canada's economy both in the regional area of Saanichton, British Columbia, as well as nationwide. An increase in exports would mean that there would be an increase in Canada's GDP (Global Affairs Canada, 2016). As of 2015, export values on industrial machinery, equipment, and parts totaled \$32.8 billion CDN (Statistics Canada, 2016). The distillery system would add to that number if it were exported to Nepal.

The exportation of the distillery system would also boost employment in the local area. Specific Mechanical has grown substantially as a business in the last five years, increasing their employees from 45 to 100. This is due to the increase in exports to countries outside of North America (Commerce, 2012). They have expanded on an international scale to promote their distillery systems to a broad range of customers. Specific Mechanical have exported distillery systems to several countries across the world including Australia, Brazil, China, Guatemala, Ireland, Japan, Korea, Philippines, Puerto Rico, Taiwan, and Wales (Specific Mechanical Systems, 2016).

Trade relations between Canada and Nepal would improve from the partnership of this export, which is a benefit to both countries. As of 2010, the Canadian exports to Nepal were \$22.5 million CDN. The Canadian imports from Nepal were \$14.2 million CDN (Statistics Canada, 2010). These numbers have risen at a steady rate for the past five years (Statistics Canada, 2010). Exporting the 240-gallon distillery system would add to the Canadian exports value to Nepal.

## **PART 2 – EXPORT POTENTIAL TO NEPAL**

### **Nepal as a Country**

Nepal is a small country located in the southern part of Asia, bordering southern China, and Northeastern India, with an area that covers 147, 181 square kilometers (Statistics Canada, 2010). This land is divided into three different landscapes. The Mountain



<http://www.infoplease.com/atlas/country/nepal.html>

region, which is in the northern part of the country along the border of China; the Hillside region, which is in the central part of the country; and the Terai region, which are the flatlands in the southern part of the country along the border of India. Nepal has a population of approximately 28.432 million people, for which 75 percent of the population is employed in the agriculture industry (Fortune, 2015). Therefore, the agriculture industry contributes a considerable 33 percent to the nation's GDP (Fortune, 2015). The tourism industry contributes eight percent to the nation's economy (Ministry of Foreign Affairs, 2016). Close to half of the nation's economy depends on these two industries. Something is needed to tie agriculture and tourism together, so they can grow together, producing a stronger economy for Nepal. The 240-gallon distillery system from Specific Mechanical Systems would connect the two industries together, purchasing the grain produced by farmers in Nepal, and selling the spirits produced by the system to tourists who visit the distillery.

### **Transportation Logistics**

From Specific Mechanical's manufacturing facility, in Saanichton, British Columbia, the components of the 240-gallon distillery system would be loaded and secured into a 40-foot shipping container, where it would be loaded onto a truck (Canadian trucking company), and delivered to a shipping terminal in Victoria, British Columbia. It would be loaded onto a cargo ship to travel across the Pacific Ocean. The ship would dock at a port along the coast of India.



<http://specificmechanical.com/>

From there, the shipping container would be loaded onto a truck and transported to Nepal. Nepal closes its borders often, due to the recent blockade between India and Nepal (Pokharel, 2015). This can be difficult to bring imports into the country. When this happens, the shipping container will be offloaded from the truck and it will be stored in city in India, until the border opens in Nepal, at which time the container could be reloaded onto a truck and cross the border. The cost of storing the shipping container in the Indian city bordering Nepal is \$5000-\$6000 per month.

### **Cost Analysis**

The initial cost of the distillery system is \$270,000 in Canadian dollars (R. Snow, personal communications, November 16, 2016). In Nepal, the currency used is the Nepalese Rupee. The exchange rate is 1 Canadian dollar for 79.13 Nepalese Rupees. That is equivalent to 21,365,100 Rupees (Statistics Canada, 2010). For most of the distilleries Specific Mechanical have manufactured, a third topper head is usually required to distill other spirits such as vodka (M. Jackman, personal communications, November 23, 2016). This is an additional \$40,000 Canadian dollars, or 3,165,200 Rupees. For the larger distilleries who require the distilling system to operate continuously, additional fermentation chambers are required, so that enough grain can be distilled into a mash, which is then transferred to the distillation system. The 240-gallon distillation system includes one fermentation chamber, however it is not sufficient enough to provide a continuous mash for the distiller. Fermentation takes approximately 2-3 days (Kim, 1997). In most cases, Specific Mechanical have sold two to three additional fermentation chambers, so that they can provide a continuous supply of mash to the distiller so it can operate steadily (M. Jackman, personal communications, November 23, 2016). Each additional fermentation chamber costs \$50,000 Canadian dollars each, which converts to 3,956,500 Rupees. All together for the 240-gallon distillery system and the 3<sup>rd</sup> topper head plus two additional

fermentation chambers (I will quote two chambers instead of three, to reduce the cost of the export), the total cost would amount to \$410,000 Canadian dollars, or 32,443,300 Rupees (M. Jackman, personal communication, November 23, 2016).

### **Needs and Benefits to Nepal**

Nepal has many benefits of importing the 240-gallon distillery system. These include a market for the grain that is produced in the country, a leftover by-product from the fermentation process that can be utilized as animal feed, employment at the distillery who purchases the distillery system, a new attraction for the tourism industry in Nepal, and cheaper alcoholic beverages.

### **Market for Grain**

Farmers in Nepal grow a wide range of crops, including corn, millet, and barley (Krishna & August, 2010). These three crops are the most commonly grown in the country. In order for farmers to achieve the best profit from their commodities, a strong market must be available for them to sell to (Ghimire, 2016). The 240-gallon distillery system uses these grains to produce several different spirits, such as whiskey,

brandy, rum, and gin (New Liberty Distillery, 2015). The addition of this distillery system to a distillery in Nepal would create a new market for the grains that the farmers produce, since the distillery would become a buyer of the



<http://www.alamy.com/stock-photo/barley-nepal.html>



grain. This would increase the profitability of the grain (Ghimire, 2016).

### **By-product for Animal Feed**

The grains are used in the fermentation chambers of the distillery system, where the grain is fermented for two to three days (Kim, 1997). This creates a mash, which is then used in the distillation process. The by-product of the fermentation process is the components of the grain that were not fermented into the mash. These include the condensed soluble and the dried grain from the fermenter. This by-product can be used as feed supplement for livestock (Zhu, Deyoe, Behnke, & Seib, 1991).

The farmer can profit from the distillery system in two ways, once by selling the grain they produce to the distillery, and again when they receive a source of food they can feed back to their livestock.

### **Employment at the Distillery**

The distillery who utilizes the 240-gallon distillery system would require more employees to operate the system, as well as manage the operation of the system. This would help reduce the unemployment rates in Nepal which are very high, at 50% (Fortune, 2015).

### **Tourism Industry**

Nepal's tourism industry is a large contributor to the country's economy (Ministry of Foreign Affairs, 2016). Taking advantage of what this industry has to offer, by offering tours of the distillery facility and the 240-gallon distillery system itself. This would help boost the income from the tourism industry in the area where the distillery is located. Development in the

tourism industry has been shown to improve economic growth in Nepal according to a study published in 2014 (Gautam, 2014). Therefore, the country will benefit as a whole from the distillery system.

### **Cheaper Alcohol**

Nepal's importing costs for alcoholic beverages are very high, since they have a 100% duty charge (Nations Encyclopedia, 2016). This makes it inconvenient and impractical for some of the Nepalese, so they do not have access to such a luxury. Importing the 240-gallon distillery system from Specific Mechanical would be a large initial cost for the distillery, however, there wouldn't be such a high inflation on the price of the alcohol, because there wouldn't be a duty charge added to the initial cost of the product. This would make it more affordable for the Nepalese citizens to purchase.

### **Contact Information**

The target consumers of the 240-gallon distillery system are established craft distilleries in Nepal. In the country's capital, Kathmandu, there are four distilleries that are currently in operation. These include the Sumy Distilleries Pvt. Ltd, Gorkha Brewery Pvt. Ltd, Highland Distillery Pvt. Ltd, and Asian Distillery Pvt. Ltd. (The Whisky Portal, 2016). These four distilleries are only a sample of how many distilleries there are in the entire country of Nepal. Therefore, the market for the 240-gallon distillery system could span to other distilleries that are located across the country.

### **Sales/Marketing Strategy**

To market the 240-gallon distillery system from Specific Mechanical, the highlights and benefits of the system need to be compared to the distillery systems from the competing

manufacturers. The distillery system is an all-in-one system, which includes all of the components required to produce spirits from start to finish. This system all mounted on a transportable skid, for easy maneuverability. Specific Mechanical pre-tests every distillery system to ensure that it is working properly. To ensure the safety of the people who operate the distillery system, Specific Mechanical fits each pipe fitting with a five PSI pressure relief valve (M. Jackman, personal communications, November 23, 2016). This valve prevents the pressure from building up too high in the fermentation and distilling chambers. Therefore, the valve can prevent explosions from happening that are caused by too high of PSI in the chambers. Specific Mechanical also equips every distillery system with explosive proof electronics, as another method to prevent explosions (M. Jackman, personal communications, November 23, 2016). This is another safety feature to keep the operators of the distillery system safe.

### **Import/Export Documentation**

Exporting the 240-gallon distillery system from Specific Mechanical out of Canada requires you to follow a series of steps. First, you must obtain a business number, issued by the Canada Revenue Agency, regardless of whether you are a business or a single individual (Canada Border Services Agency, 2016). The goods exported need to be identified and a form submitted to the Canada Border Services Agency, signifying the country of destination. This agency will inform you if you need any special permits or restrictions set in place by other government departments. To classify the export, you must determine if you need an export declaration. Exporting to Nepal will require an export declaration, which will also need an export code to go with it. This code can be found by contacting Customs Tariff. Once the export code has been recorded, the method of shipping must be reported to the Canada Border Services. The distillery system is transported in a 40-foot shipping container, which would be transferred to a

cargo ship. Therefore, the report along with the export declaration, needs to be submitted at least 48 hours before the shipping container would be loaded onto the ship. Finally, after the distillery system is exported, a Certificate of Origin will need to be provided to Nepal, the importing country (Canada Border Services Agency, 2016).

Importing into Nepal requires the documents submitted to export from Canada, such as the Certificate of Origin and Declaration Form (Nepal Freight Forwarders Association, 2016). Along with these documents, Nepal requires the importer to provide a certificate of their insurance policy, and import license (Nepal Freight Forwarders Association, 2016).

### **Government Grants/Loans**

The Canadian government offers a variety of different grants and loans to Canadian businesses and entrepreneurs wanting to start new business opportunities. The Global Opportunities for Associations (GOA), is a funding program that supports businesses and associations in Canada, to start new business opportunities in developing sectors or expand sectors that are currently active (The Canadian Trade Commissioner Service, 2016). The fund provides anywhere from \$20,000 Canadian dollars to \$250,000 for the recipient for the first year. For funding after the first year, the recipient must re-apply to the grant. The next application process for the funding program takes place between April 1, 2017, and March 31, 2018 (The Canadian Trade Commissioner Service, 2016).

### **Regional and Global Competition**

Some of the competing companies who manufacture distilling systems in the United States are Hillbilly Stills based out of Barlow, Kentucky (Hillbilly Stills, 2015), and Vendome Copper and Brassworks from Louisville, Kentucky (Works, 2016). Other competing distilling

system manufacturers around the world include Forsyth Distillation in Moray, Scotland (Forsyths, 2016); CARL Artisan Distilleries and Brewing Systems in Stuttgart, Germany (CARL Distilleries, 2016); and Muller Pot Stills and Distillery Units in Oberkirch, Germany (Muller, 2012). All of these distilleries have been in business longer than Specific Mechanical Systems has, however, they do not offer the same product as Specific Mechanical does. These competing companies offer either large scale distillery equipment for large operations (Works, 2016), that are not portable and maneuverable on a rolling skid, or they manufacture small scale distillery equipment for the hobbyist (Hillbilly Stills, 2015). Specific is different from these other companies, because they manufacture the 240-gallon distillery system, an all-in-one distillery system that is pre-plumbed and pre-wired mounted on a rolling skid for easy maneuverability (Specific Mechanical Systems, 2016).

### **Final Recommendations**

To obtain a better understanding of the impact the 240-gallon distillery system will have on the country of Nepal, further research must be conducted. Determining if there will be any negative impact on the Nepalese citizens is a priority before exporting the distillery system. Due to the initial cost of the distillery system and the additional transportation costs, I do not believe that this product is a cost-effective export. I do believe that there is a need for a distillery system that would connect the agriculture and tourism industries together, however, I think there needs to be a cheaper alternative for the Nepalese distilleries to purchase.

## References

- Canada Border Services Agency. (2016, April 1). Step-by-Step Guide to Exporting Commercial Goods from Canada. Retrieved November 29, 2016, from <http://www.cbsa-asfc.gc.ca/export/guide-eng.html>
- CARL Distilleries. (2016). CARL Artisan Distilleries and Brewing Systems. Retrieved November 30, 2016, from <http://www.brewing-distilling.com/>
- Commerce, G. V. C. of. (2012). Meet Specific Mechanical Systems. Retrieved November 27, 2016, from [http://www.victoriachamber.ca/chamber\\_interviews/Specific\\_Mechanical\\_Systems.aspx](http://www.victoriachamber.ca/chamber_interviews/Specific_Mechanical_Systems.aspx)
- Forsyths. (2016). Forsyths – Distillation. Retrieved November 30, 2016, from <http://www.forsyths.com/distillation/>
- Fortune. (2015). 5 things you need to know about Nepal's economy. *Fortune Newspaper*. Retrieved from <http://fortune.com/2015/04/27/nepal-gdp-economy/>
- Gautam, B. P. (2014). *Economic Dynamics of Tourism in Nepal*. Retrieved from [http://search.proquest.com/subzero.lib.uoguelph.ca/docview/1700393598?rfr\\_id=info%3Aaxri%2Fsid%3Aprimo](http://search.proquest.com/subzero.lib.uoguelph.ca/docview/1700393598?rfr_id=info%3Aaxri%2Fsid%3Aprimo)
- Ghimire, R. (2016). Adoption Pattern and Welfare Impact of Agricultural Technology. *Journal of South Asian Development*, 11(1), 113–137. Retrieved from [http://resolver.scholarsportal.info/resolve/09731741/v11i0001/113\\_apawioat.xml](http://resolver.scholarsportal.info/resolve/09731741/v11i0001/113_apawioat.xml)
- Global Affairs Canada. (2016). Canada's State of Trade: Trade and Investment Update – 2015. Retrieved November 27, 2016, from <http://www.international.gc.ca/economist->

economiste/performance/state-point/state\_2015\_point/index.aspx?lang=eng

Hillbilly Stills. (2015). Hillbilly Stills. Retrieved November 30, 2016, from

<http://www.hillbillystills.com/>

Kim, J.-S. (1997). Development of clean technology in alcohol fermentation industry. *Journal of Cleaner Production*, 5(4), 263–267. Retrieved from

[http://resolver.scholarsportal.info/resolve/09596526/v05i0004/263\\_doctiafi.xml](http://resolver.scholarsportal.info/resolve/09596526/v05i0004/263_doctiafi.xml)

Krishna, B., & August, P. (2010). National Issue Paper on the Agriculture Sector ( Adaptation ), (August), 1–24.

Ministry of Foreign Affairs. (2016). Tourism in Nepal. Retrieved October 18, 2016, from

<https://www.mofa.gov.np/about-nepal/tourism-in-nepal/>

M. Jackman. 2016. Design Engineer Specific Mechanical Systems Ltd. Date: November 23, 2016

Muller. (2012). Müller Pot Stills and Distillery Units. Retrieved November 30, 2016, from

[http://www.brennereianlagen.de/contents/en/brennereien/kb\\_compactlineI.html](http://www.brennereianlagen.de/contents/en/brennereien/kb_compactlineI.html)

Nations Encyclopedia. (2016). Customs and Duties in Nepal. In *Nations Encyclopedia*. Retrieved

from <http://www.nationsencyclopedia.com/Asia-and-Oceania/Nepal-CUSTOMS-AND-DUTIES.html>

Nepal Freight Forwarders Association. (2016). Documentation Required for Import Clearance.

Retrieved November 29, 2016, from <http://neffa.org.np/additional-information/documentation-required-for-import-clerance/>

New Liberty Distillery. (2015). Distilled Whiskey. Retrieved November 29, 2016, from

<https://newlibertydistillery.com/craft-distillery-equipment/faqs-specs/>

Pokharel, K. (2015). The Two-Month Blockade of Nepal Explained. *The Wall Street Journal*.

Retrieved from <http://blogs.wsj.com/indiarealtime/2015/11/26/the-two-month-blockade-of-nepal-explained/>

R. Snow. 2016. Shipping and Receiving Manager Specific Mechanical Systems Ltd. Date:

November 16, 2016

Sapkota, C. (2011). Nepal's top ten exports to and imports from India and China. Retrieved

November 29, 2016, from <http://sapkotac.blogspot.ca/2011/11/nepals-top-ten-exports-to-and-imports.html>

Specific Mechanical Systems. (2016). Specific Mechanical Systems Ltd. Retrieved October 18,

2016, from <http://specificmechanical.com/products-services/brewery-systems>

Statistics Canada. (2010). Fact Sheet. Retrieved November 29, 2016, from

[http://www.canadainternational.gc.ca/india-inde/bilateral\\_relations\\_bilaterales/fs\\_nepal\\_fd.aspx?lang=eng](http://www.canadainternational.gc.ca/india-inde/bilateral_relations_bilaterales/fs_nepal_fd.aspx?lang=eng)

Statistics Canada. (2016, October 5). Exports of goods on a balance-of-payments basis, by

product. Retrieved October 18, 2016, from <http://www.statcan.gc.ca/tables-tableaux/sum-som/101/cst01/gblec04-eng.htm>

The Canadian Trade Commissioner Service. (2016). Global Opportunities for Associations.

Retrieved October 18, 2016, from <http://tradecommissioner.gc.ca/funding-financement/goa-oma/index.aspx?lang=eng>

The Whisky Portal. (2016). Distilleries in Nepal producing whisky, whiskey, bourbon or rye.



Retrieved November 30, 2016, from

<http://www.whiskyportal.com/region.asp?RegionID=49&Region=Nepal>

Works, V. C. and B. (2016). Vendome Copper & Brass Works Inc. Retrieved November 27, 2016, from <http://vendomecopper.com/>

Zhu, X., Deyoe, C. W., Behnke, K. C., & Seib, P. A. (1991). Poured feed blocks using distillery by-products as supplements for ruminants. *Journal of the Science of Food and Agriculture*, 54(4), 535–547. <https://doi.org/10.1002/jsfa.2740540405>