Philosopher's Wool Co.: SME Sustainable Supply Chain Management in the Global Economy

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PHILOSOPHER'S DILEMMA: Finding a Profitable Small to Medium Enterprise (SME) Supply Chain Model in the Global Economy

In 1975, Eugene and Ann Bourgeois literally built their home and farm in Inverhuron, Ontario, Canada from the ground up using their own labor and help from friends and neighbors.[1] The farm produced, among other agricultural commodities, wool fleece obtained from shearing their own sheep herd. The business decision to enter into the woolen trade came after the couple learned the ancient Fair Isle two-handed knitting technique during a trip to Great Britain. They decided to use their design talents and commitment to hard work to begin the Philosopher's Wool Company ("Philosopher's") in 1984. The mission of the company was to **"**support sustainable agriculture… We have always been a fair trade company, producing wool yarn that is as natural and organic as possible." To accomplish its mission, Philosopher's designed a business plan using a social entrepreneurship model. It would produce, for wholesale distribution to global markets, natural organic woolen products using a sustainable vertical supply chain which included partnering with other local fleece producers and craftsmen. At that time, Ontario quality fleece production was at a virtual standstill because of government pricing policies that stifled market growth.

Another significant component of Philosopher's business plan was to achieve a profitable market entry strategy into global markets through partnering with foreign distributors. However, given its small size and limited operational capacity as an SME (small to medium enterprise), it was difficult to attract foreign distributors. The problem of achieving a competitive advantage became even more complicated when the U.S. Government added border tariffs on exportation. This increased delivery and distribution costs. So, Philosopher's was forced to abandon its original plan of wholesale distribution and instead, became a retail distribution operation. That meant that Eugene and Ann had to leave the farm operations for several months at a time and travel across the United States and Canada to sell their products direct to consumers at knitting and craft shows. In their 70's and with no business successor in sight, Eugene and Ann realized that their days of direct retail distribution were numbered given their age and the competing needs of the farm. A return to the original and more costly wholesale distribution model, which included the need to partner with U.S. distributors, seemed inevitable. But, the challenge of how a SME could successfully compete for foreign distributors where it had little financial leverage

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in the marketplace remained unresolved. Still unable to close a final deal with a U.S. distributor, Philosopher's continued to search for a solution and remain a viable concern.

INDUSTRY BACKGROUND: CANADIAN WOOL MARKETS

Canada's Wool to Market

The Canadian Co-operative Wool Growers Limited (CCWG) was established in 1918 by the sheep industry as a national system of collecting and marketing its member's production through a co-operative system (co-op). The co-op collected, graded, measured, and marketed the producers' wool, and after deducting its costs, returned the difference to the producers as their price. Wool prices in Canada had been historically low for several years. [2] Generally, prices paid to wool producers were insufficient to cover the costs of shearing. Thus, wool production had generally not been the primary reason for raising sheep in Canada. The Canadian co-op system had done nothing to create end use value for fleece production. Other than acting as a conduit through which product was sold in the marketplace, it offered no economic development assistance to local farmers. Whatever collective market power or economic advantage was expected to flow from integrating SME fleece producers in the Canadian market never came to fruition. There was a substantial consumer demand for finished woolen products and loose yarn supplies locally but it was being satisfied through importation rather than developing competitive local production and distribution channels.

The CCWG co-op graded and marketed approximately three million pounds of raw wool each year with most of this production coming from Quebec, Ontario, and Alberta. China was the major buyer of Canadian wool. In total, 90 percent of Canada's production was shipped to Britain, France, Germany, Spain, Japan, United States, China and India. Canadian wool had a niche in the marketplace because of it high elasticity or springiness that helped it to keep its original shape. (Global market comparisons are provided in Exhibit 1).

Ontario Market

Philosopher's was located in Inverhuron, Ontario. With approximately 4200 farms, Ontario had approximately 25-30 percent of the sheep population in Canada. The cost to shear and transport the fleece for sale to the CCWG was $.50 to $.70 per pound (in U.S. dollars). In the ten years between 1975 and 1985, the price paid by the co-op to sheep farmers had ranged on average between $.32 and $.50 per pound, well below the production cost. Up until this point, shearing sheep and disposing of fleece was seen more as a necessary cost of doing business. Delivery of fleece to the co-op was basically an exercise in waste disposal of an unwanted by-product. Philosopher's managed to turn by-product cost into profit for itself and other sheep farmers in Ontario under these depressed pricing circumstances.

PHILOSOPHER'S SUSTAINABLE SUPPLY CHAIN MODEL

Corporate structure

In 1975, Eugene was a doctoral student in philosophy (ergo, the name, "Philosopher's Wool") and Ann, a teacher. Motivated to become entrepreneurs, they started a farming business producing lamb, chickens, eggs, hay, vegetables, fruit, and wool fleece. Upon entering into the wool trade in 1984, their plan was to use their flock of sheep to produce both meat product and fleece. Their supply chain business model required growing hay for feed, sheep shearing to produce fleece, processing the fleece into finished wool, dying the yarn, and producing knitting kits based on original designs for customers to make sweaters, shawls, gloves, hats and other woolen articles using the Fair Isle knitting method. The model was designed for the vertical integration or organization of each step of production and distribution of woolen products, from shearing to selling. The idea was to follow a true stakeholder approach aimed at providing an increased economic benefit to each local shearer, farmer and crafts person who added value to the product as it progressed along the supply chain to the end user or consumer. Ann also decided to teach classes to consumers in the Fair Isle knitting technique.

Along with the farming partnership, Eugene formed a sole proprietorship called "Philosopher's Stone." Philosopher's Stone was built as a shop connected to the farm house. The shop sold yarns, pottery, finished sweaters, knitting accessories, kits, stained glass and some foodstuffs. Shortly thereafter, in 1985, they incorporated the wool business partnership which became known as The Philosopher's Wool Co., Ltd., a Canadian corporation. Philosopher's was staffed by Eugene and Ann as its first two employees. Family members came in and out of the business and provided temporary help at times but showed no interest in business succession. Later, a bookkeeper/office helper was added to the small staff. When needed, Eugene hired temporary seasonal farm help or received assistance from other friends and nearby farmers.

The Sustainable Vertical Supply Chain: Resources, Production, Distribution

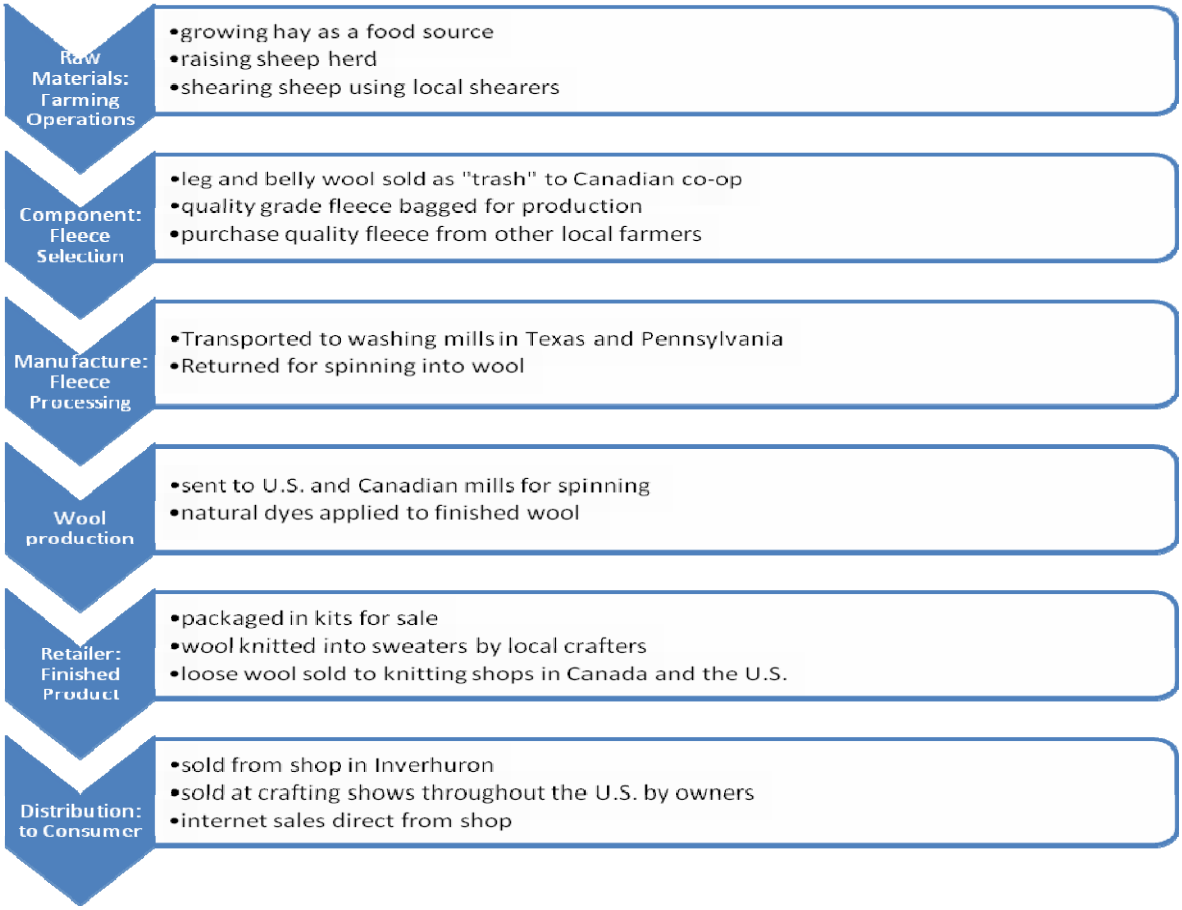
Philosopher's grew hay as a source of food for the sheep. As part of this operation, Eugene partnered with local farmers to make round hale bales for feed and then gave a portion of his hay production to other local residents in need. Each year, fleece grew on the sheep and Philosopher's hired a local sheep shearer to assist in the shearing process. Leg wool and belly wool was carted away as trash, called "tags," and sold as "felting wool" after being processed. Philosopher's sold the tags to the co-op for approximately $.50 to $.70 cents per pound through a local farming agent who also charged a small commission.

The remaining quality grade fleece was stored in six foot bags each weighing approximately 180 pounds. Other local farmers were contacted directly or through the shearer and invited to supply, sell, and deliver their fleece to Philosopher's as an alternative to supplying the co-op. Unlike large manufacturers, SMEs like Philosopher's operated less formally. There was no formal supplier selection, no supplier certification process, no long-term contractual agreements, no shared technology or demand data. Instead, partnering with other farmers as fleece suppliers was

essentially determined by local geography. Selection simply depended upon the person who lived and farmed next door and whether that neighbor had a good reputation in the local community. Through the local integration of like-sized SME farmers into Philosopher's supply chain partnership, the farmers received not only an increased initial payment of $.75 per pound but an additional amount was later paid to the farmer after the fleece was processed and weighed. On the average the second payment was approximately $1.20 per pound, in some cases even more depending on the finished wool yields. Yields could vary based on the cleaning processes used by each individual supplier. As a result of these higher prices paid for fleece, farmers expanded wool fleece production, changing the model from a mere by-product cost of engaging in the meat producing business to a revenue generating part of sheep production. Farmers used the newly found profits from fleece production to defray costs of hay production and for cleaning their barns. The income from meat production became almost pure profit. Another case in point was the local Ewenity Dairy. The dairy was able to develop a cheese and yogurt manufacturing business by using the fleece profits to cover the farming costs.

Philosopher's then transported the fleece to several washing mill facilities in Texas and Pennsylvania. The need to integrate American SME washing mills in the supply chain, as opposed to local washing mills, arose because the Canadian co-op system marginalized fleece production to such an extent that washing mills were unable to survive in the marketplace. As a result of improved sheep rearing and fleece cleaning procedures, wool production yield was increased and much waste was eliminated in the production process. On average, Philosopher's received an increased yield of approximately 530 pounds of yarn from the original 1000 pounds of fleece purchased directly from local farmers as compared to the approximately 400 pounds of yarn yield if the wool came from the co-op where improved cleaning and sanitation practices for the fleece had not been implemented. Also, in conformity with its organic production mission, Philosopher's washing process required only one wash cycle instead of two and thereby reduced the use of detergent chemicals used to wash the wool. This washing process also retained approximately 50-60 percent of the natural lanolin in the wool. Because of the high retention of lanolin, there was also no need to put chemical moisturizers in the wool. The process reduced allergic reaction to the wool and produced a softer and more competitive brand quality. After washing, the wool was then returned to Philosopher's for spinning and dying in mills in the United States and Canada.

PHILOSOPHER'S VERTICAL SUPPLY CHAIN MODEL



To further integrate SME production as part of the supply chain, Philosopher's hired local knitters from Inverhuron and other adjoining local communities to knit finished product sweaters and other woolen clothing articles. Knitters were hired as independent contractors and paid by the piece, usually $110 to $170 per sweater depending on the complexity of the pattern. The finished sweaters were sold at retail for $400 to $700. Made from some of the finest wool, the finished product was designed to last a lifetime under normal wear and tear conditions. As an added financial benefit, Philosopher's offered its knitters a dollar for dollar matching tuition program up to $2000 for each child of the family attending college. Knitters also received an annual bonus on a pro rata basis for completed pieces during the year which was between $100 and $1000. The company did not outsource globally: its financial commitment was to rebuild the local community in which it conducted its business.

Additionally, Philosopher's SCM (supply chain management) philosophy focused on integrating other SMEs to create employment opportunities in local markets and return profits into the community. Shearers, farmers, knitters, and woolen mills were part of the local supply chain partnership which benefitted from Philosopher's goal of sustainable pricing and sharing profits.

According to Philosopher's co-owner, Eugene Bourgeois, **"**it's all about being recognized as a responsible brand." He explained that responsibility meant many things to Philosopher's. The stated goals of the company included fairness in price to other suppliers and creating meaningful partnerships in the supply chain enterprise to induce higher product quality at competitive prices. "The major difference between my approach to Philosopher's and a large global company approach concerns profits and notions about profits. We took a very long-term approach to profits, demanding first that truly sustainable prices would be paid to farmers [other wool producers] for the commodity produced. If we couldn't develop Philosopher's in such a way that these payments to farmers were achievable, then there was no benefit to operating Philosopher's and it would fail. I readily admit that this is a radical approach to the topic but I genuinely believed that it would be possible to pay farmers and develop a viable business. The reason for doing so is hardly philanthropic alone, although my attitudes about society played a major role. It is difficult to achieve a consistent supply of quality feedstock. [3] Were we able to do so, through pricing structures, we would build a reliable supply chain whose members know the alternative and so have a direct and vested interest in our success. That, in turn, is what has happened."

Products

Philosopher's manufactured three principal products: finished woolen goods, knitting kits, and loose wool skeins. Sales of sweaters and finished goods accounted for about one percent of its combined show and shop retail annual sales. The kits accounted for approximately 30 percent of total sales with loose yarn accounting for 70 percent of total sales. Sixty percent of the total revenues were earned at retail show venues; the remainder was generated by the shop and through internet sales. On average, 95 percent of profits were earned in the United States. Once again, Philosopher's followed its own model for sustainable SCM practices involving the consumer. For example, the average sweater cardigan kit cost $130. For this price, Philosopher's included the yarn, patterns, and buttons to complete a sweater. Typically, a sweater required seven to nine skeins of yarn. Philosopher's included eleven skeins to ensure completion and offered to buy back, at its loose skein price, any unused skeins. It also replaced any color in the pattern at the customer's request. Philosopher's assured supply chain continuity in product lines by not discontinuing dye lot colors used in the kits.

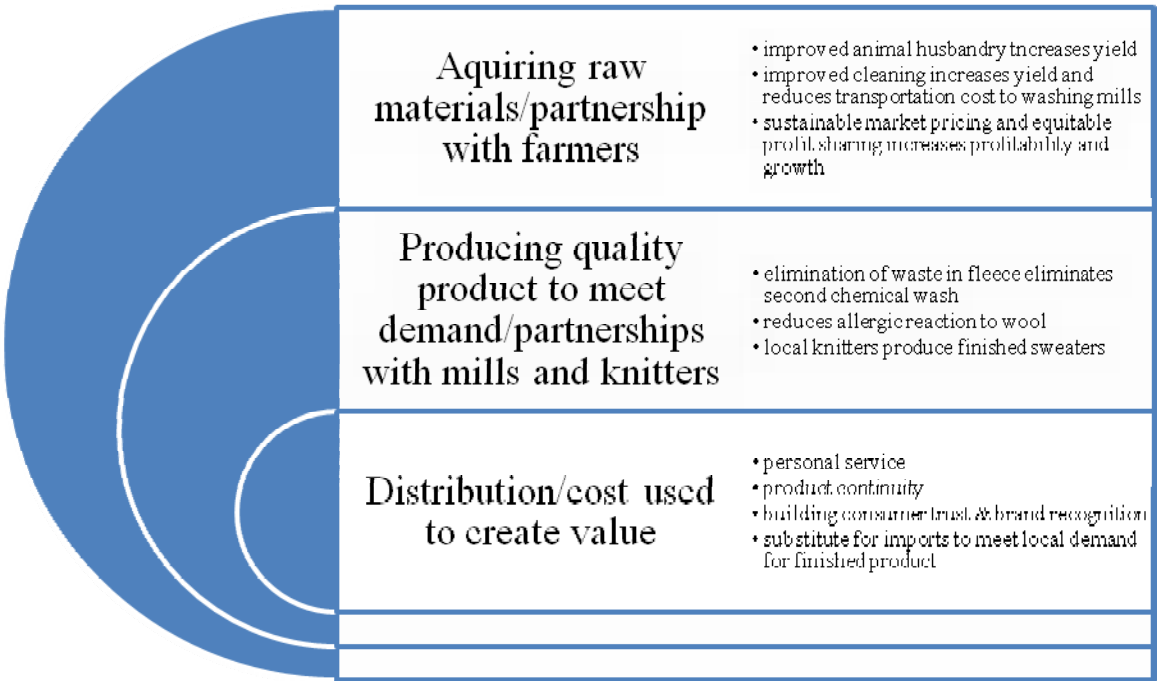
Philosopher's also created a website where it provided free knitting patterns and knitting instruction. The kit package listed a phone number that was personally answered by Ann Bourgeois or other members of Philosopher's staff to address knitters' questions. The goal was to protect consumer trust. Customers also received a free canvas knitting bag with purchase, personalized help and instruction, and were made to feel part of a special community that knits in an ancient tradition. Knitting training and customer assistance were also available on-line at http://www.philosopherswool.com/Pages/Twohandedvideo.htm.

Philosopher's published several knitting books, including several co-authored with other knitters engaged in creative pattern design. They also sold a knitting DVD that demonstrated the Fair Isle technique.

Methods of Distribution

The increase in export costs to foreign distributors, as a result of heavier border tariffs, transformed the business from a wholesale operation to a retail operation. Eugene and Ann changed their distribution strategy and began to travel throughout the United States and Canada to attend knitting shows where they sold the kits, provided instruction, and personally met with local yarn distributors who carried their loose wool in knitting specialty stores.

PHILOSOPHER'S SUPPLY CHAIN:
A Coalition of SMEs Using Cost to Create Value



Philosopher's Decisions: Past, Present, and Future

At first, Eugene and Ann did their own shearing, kept back some fleece for Ann to card and spin, but sold the bulk of their production to the co-op. They sold the fleece with high expectations because they had produced the finest quality based on the care and feeding of their livestock. Five months later a check arrived from the co-op paying them $.32 per pound. It had cost them $.70 to sheer and transport the fleece. After discussions with the co-op they expected to do better the next year but the next production returned $.50 per pound from the co-op. Eugene's confusion increased when he visited a local yarn shop (that later sold Philosopher's loose yarn) which offered a 20 percent discount on a yarn purchase of $200 or more. He bought the yarn and quickly realized that he had just spent $22 for a pound of yarn, on sale, compared to the $.32 per pound that Philosopher's had just received for its fleece.

Eugene was determined to increase his profits. His experience convinced him that farmers could improve fleece prices if they participated directly in marketing the product. The key was to convince other local farmers to clean their fleece to reduce mill processing costs and weight transportation costs. The process also contributed to improving local animal husbandry because farmers were required to engage in better care of their livestock to produce cleaner fleece.

Eugene also reviewed a local provincial study that showed Canada had imported the equivalent of eighty five million pounds of finished woolen goods to satisfy a domestic demand of over forty times the amount of wool being produced in Canada. If Canadians were to sell every scrap of wool produced domestically in finished product, it would amount to less than 3 percent of the documented consumer demand. Convinced that a market existed, Eugene devised a plan to buy fleece from other local farmers. If they could deliver dry, clean, and high yielding fleece, he would reward them with a higher price than the co-op. He based the price on the weight of the finished wool that their shipment yielded after it dried. If Philosopher's could earn $2.65 a pound by selling finished yarn after expenses, it was committed to paying local farmers $2.00 a pound and investing the other $.65 in the company's future operations. Eugene's plan worked. It created a new supply chain partnership between Philosopher's and other local farmers and achieved his original goal of paying sustainable commodity prices to local fleece producers in Ontario.

The payment of higher prices to the farmers for cleaner fleece also resulted in less waste and higher yields giving Philosopher's an economic competitive advantage in the marketplace. Fleece sold by the co-op yielded between 48-50 percent of wool product after the fleece was washed. Spinning depleted fleece yield by another 10-13 percent. Because farmers were motivated by increased price to produce cleaner wool, which also had the effect of reducing processing and transportation costs, Philosopher's found that it had received an increased yield of approximately 530 pounds of yarn from the original 1000 pounds of fleece purchased directly from local farmers as compared to the approximately 400 pounds of yarn yield if the wool came from the co-op where improved cleaning and sanitation practices for the fleece had not been implemented. According to Eugene, "Sustainable SCM resulted in higher yields, decreased costs, and less waste, all of which increased Philosopher's bottom line."

Philosopher's sustainable business practices in SCM were well-regarded by the Canadian co-op. Eric Bjergso, General Manager of the CCWG stated in a recent 2008 interview: "By sharing the value added revenue with the primary producer, Philosopher's Wool has paid premium prices to some producers of select well prepared wool clips. I do not know how many producers or the amount of wool that they purchase on an annual basis for this niche market. I do commend them for their efforts in developing this specialty market and then forming a partnership with the producer."

Eugene and Ann were concerned about the future. In their 70's, the couple was tired of travelling long distances by car throughout the United States and Canada for months at a time only to return to their farm and face neglected duties. They knew that they needed to find U.S. distributors for their kits and loose wool products but it proved difficult to compete in an already well established retail market. Their target customers had been specialty knitters looking for

unique kits and woolen products in the craft show markets. Changing to the craft superstore environment and to specialty yarn stores proved to be difficult. Philosopher's was known for its unique Fair Isle designs, difficult for the average knitter. Also, hand dyed wools sold at a premium, and that meant less competitive pricing than the established domestic wool manufacturers.

In order to become profitable in a wholesale market, Philosopher's was faced with the need either to raise prices or to cut costs. Raising price in an already tight market was not an attractive solution, so they decided to cut costs. However, cutting costs meant changes in their sustainable supply chain model in several respects. First, they stopped purchasing and warehousing local fleece production. Rather than dropping the price paid to farmers as the co-op had done, they simply cut back on annual purchasing. Second, they produced fewer handmade sweaters and reduced their finished inventory supply which meant that they employed fewer local knitters. Finally, they began meeting with larger U.S. wool product distributors in an effort to promote their products for U.S. markets. Eugene and Ann were unhappy with this result. They felt that the cutbacks impeded their efforts to build local economies in their community. The large manufacturing plants that sustained whole communities in the area had long ago closed their doors. Philosopher's had attempted to rebuild the local economies by expanding the woolen trade using the SME supply chain model.

In 2009, both Eugene and Ann suffered illnesses that prevented them from continuing to travel to knitting shows. Without any success in establishing a partnering arrangement with a foreign distributor, they confined their retail operations to the shop and internet sales.

Exhibit #1

Global Market Comparisons

Only 5.4 percent of all farms in Canada reported raising sheep in a recent 2001 census (See Exhibit 2). In 2003 that translated to approximately 993,000 head of sheep raised nationally with an average flock size of 74 head per farm. The sheep population varied considerably on an annual basis. To put this in perspective using statistics from World Sheep Inventories, China led the world in national flock size at 1,034,007,000 head of sheep. No other nation was even a close second. The next largest national flock was located in Australia with 113,000,000 head. The United States remained ahead of Canada with a national flock size of 6,685,000.

Profits from sheep production included meat from slaughter, sales of sheep, and revenues from wool production. Canada produced 1500 metric tons of wool in 2002, approximately 3.3 million pounds, which represented only one percent of the $102.5 million in farm-gate total revenues from combined sheep production during the same period.

According to the Wool Market & Business Update Fall 2008 Report prepared by the Canadian Co-operative Wool Growers Limited (CCWG), China still remained the major source of global wool production through its own production or through outsourcing of wool processing to China by foreign growers.[4] Italy remained the second largest wool processor and manufacturer in the world but continued to face intense competitive pressure from China and other low cost countries. Canadian wool production represented a mere fraction of the world market production figures. The report further indicated that current financial world turmoil had created volatility in the commodity markets which was not a positive signal for the global wool markets. Analysts did not predict any improvement in depressed wool prices until global financial problems in the world commodity markets became more stabilized.

Exhibit #2

Canadian Sheep Industry Table: The Canadian Sheep Federation

Canadian Sheep Industry

Canadian Sheep Statistics

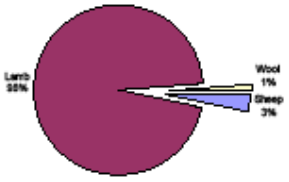
* 13,232 (5.4%) of all farms in Canada reported sheep on farm in 2001Census
* 975,600 sheep & lambs on farm January 1, 2003
* National Average flock size of 74 head
* 80% of lambs born January to July

Canadian Sheep Inventory

Source: Statistics Canada - Sheep Statistics

* 464, 726 Sheep and Lambs processed in Canada in 2002
* 34% were processed by 21 Federally Inspected plants
* 66% were processed by hundreds of Provincial plants
* Wool Production: 1500 Metric Tonnes in 2002
* $102.5 million in farm-gate sales

Canada's Sheep Industry: $102 Million in Farm-Gate Receipts



Source: Statistics Canada, Catalogue No. 21-011-XIE, Statistical Services, Policy and Programs Branch, OMAF

World Sheep Inventories

(Thousand Head)

WORLD	**1,034,007**
China	136,972
Australia	113,000
India	58,800
Iran	53,000
Sudan	47,043
New Zealand	43,141
United Kingdom	35,832
United States	6,685
Canada	993

Source: Food and Agriculture Organization, United Nations. www.fao.org

NATIONAL REPRESENTATION:

THE CANADIAN SHEEP FEDERATION

FEDERATION CANADIENNE DU MOUTON

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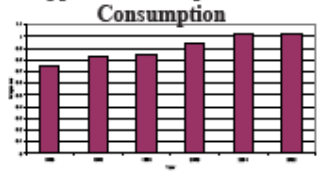
Apparent Per Capita Lamb Consumption



Source: Statistics Canada - Cat. No. 21-020-XIE

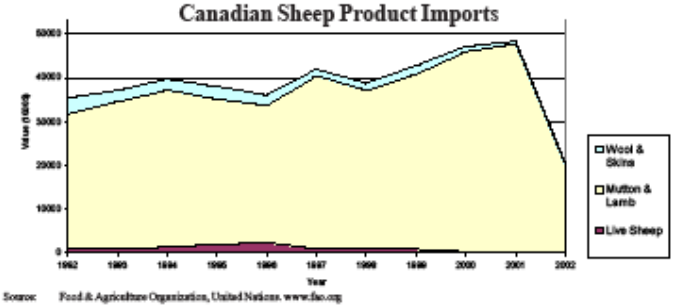
Canadian Live Sheep/Lamb Exports

Source: Food & Agriculture Organization, United Nations. www.fao.org
Statistics Canada - Sheep Statistics

Canadian Sheep Product Exports

Source: Food & Agriculture Organization, United Nations. www.fao.org

Canadian Sheep Product Imports



Source: Food & Agriculture Organization, United Nations. www.fao.org

Canadian Sheep Breeders Association
Francis Winger, Secretary/Treasurer
R.R. #4
Mount Forest, Ont. N0G 2L0
519-323-0360, Fax: 519-323-0468
email: fwinger@log.on.ca
www.sheepbreeders.ca

Canadian Purebred Sheep:

* Approximately 70,000 head of registered purebred sheep on 1000 farms representing 48 different breeds

Lamb as a percentage of Red Meat Consumption 2002

Source: Statistics Canada - Cat. No. 21-020-XIE

[1] This account of the transformation of the Philosopher's enterprise from idea to reality barely reflects the real excitement behind the story. Philosopher's Wool published a knitting book that includes a lengthy description of the history and development of the business that really should not be missed by any student of entrepreneurial models, see, Bourgeois, Eugene and Ann Bourgeois, *Fair Isle Sweaters Simplified* (2000). Washington, Martingale & Company, pp.4-25.

[2] Ontario Sheep Marketing Agency, *Introduction to Sheep Production in Ontario* (2006) at http://www.ontariosheep.org/Intropercent20topercent20Sheeppercent20Production/Introduction.pdf The Ontario Sheep Marketing Agency (OSMA) is funded by the sheep and lamb producers in Ontario. It was formed in 1985 under the Ontario Farm Products Marketing Act and all sheep, lamb and wool producers must register with the agency.

[3] Quality feedstock or sheep from which the fleece is harvested for wool production is critical to the overall quality of the wool used to manufacture end user woolen goods such as clothing. The idea is to increase prices paid to sheep farmers to enable them to improve the overall quality of the feedstock in the supply chain.

[4] Wool Market & Business Update Fall 2008 Report at http://www.seregonmap.com/SCM/index.htm