

THE CANADIAN WOOL COUNCIL

The Carpet Plan



CANADIAN WOOL
COUNCIL





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PART 1



EXECUTIVE SUMMARY

The mission of “THE CARPET PLAN” is to demonstrate the viability of producing 100% pure Canadian wool rugs of varying sizes destined for export to the design trade in selected countries.

The plan proposes harvesting pure Canadian wool from across Canada but most notably from Ontario and Quebec in the start-up phase due to the wool industry’s dominance in these provinces and due to the feasibility of transport to manufacturing centres.

The business model includes developing a premium pricing concept on raw wool to compensate producers who are willing to maintain certain care standards of their wool.¹

The rugs will be designed and manufactured to the highest environmental standards using natural, untreated wool, natural dyes, and environmentally friendly production methods. Where pertinent, we’ve made notations for improvements to the Canadian manufacturing sector. In other areas we’ve made notations where Canadian wool would benefit from tapping into global capabilities.

The business case examines a dual manufacturing and distribution model for maximum impact and lowest risk. Export market opportunities were identified for North America, Europe, and Asia.

A) Production line of 100% pure Canadian wool area rugs manufactured entirely in Canada for distribution to North American, South African, Asian and Australian markets.

B) A quantity of greasy Canadian wool shipped to UK manufacturing partners for processing, transformation, and distribution to European markets.

Production models were identified for the short term (years 1 to 3) then, amplified for the medium-term (years 4 and 5).

¹ In December 2021, The Campaign for Wool in Canada and the Canadian Wool Council formed a committee to address value chain needs. See “Canadian Wool Domestic and International Affairs Committee” in the Appendix for more information.

² International Wool Textile Organisation is the global wool authority with 23 nation members. Among many other roles, the IWTO produces reliable market intelligence relied on by many stakeholders.

The IWTO² and the UK-based advisors on this project have been instrumental in helping the Campaign for Wool in Canada to build a vision for an autonomous wool industry that doesn’t rely on foreign wool buyers and commodities pricing. A lean and agile vision that incorporates premium pricing opportunities to producers, environmentally sensitive processes, social giveback standards to the Canadian wool industry and product development worthy of carrying a “Proudly Canadian” stamp of approval.



CANADIAN WOOL
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THE CAMPAIGN FOR WOOL

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INTERNATIONAL
WOOL TEXTILE
ORGANISATION **IWTO**

COMMITMENT STATEMENT

In 2021, The Campaign for Wool in Canada and The Canadian Wool Council published THE WOOL PLAN 2021-2026; a five-year strategic initiative to reinvigorate the Canadian Wool Industry. The plan lists three (3) key missions over the next five years.

1. To rebrand and revalue Canadian wool
2. To advocate for the domestic wool industry
3. To promote Canadian wool to the global community



THE WOOL PLAN's analysis identified five (5) key bottlenecks in the value-chain that required strategic upgrading for the 3 missions to be made possible.

1. EDUCATION

The Canadian Wool Industry needs innovative programming to train the next generation of shearers and classers. It also needs college and university-level programmes accessible to those interested in careers in sheep and wool.

The Campaign for Wool in Canada hopes to establish training curricula here in Canada and create scholarship funds to make post-secondary education in wool studies accessible, here and abroad.

2. OUTREACH

The Canadian Wool Industry needs initiatives to inform and inspire consumers, designers, and supply chain stakeholders on the potential of Canadian wool.

The Campaign for Wool in Canada continues to excel in rebranding Canadian wool, from perceived waste, to one of the world's leading-quality natural fibres. Through pilot projects like "The Wool Rug Project", "The 100-Mile Blazer", "The Wool House Project", "Wool-on-Wool Fine Art" and the Canadian "Knit-Along" event, The Campaign for Wool in Canada continues to improve Canada's wool credibility and define its story.

3. BROKERAGE

The Canadian Wool Industry needs to modernize its brokerage system and build a fair-trade pricing model for Canadian wool producers. This includes finding an alternative model to selling wool overseas at commodities market pricing.



The Campaign for Wool in Canada has established premium pricing as a priority and will be launching social enterprise models aimed at giving farmers a better price for their wool.

4. INFRASTRUCTURE

The Canadian Wool Industry needs efficient processing and an agile, scalable manufacturing sector that can manage existing processing needs but can also evolve as demand increases.

The Campaign for Wool in Canada works directly with supply chain managers to learn where bottlenecks exist and collaborate on identifying industry-wide improvements for wool product manufacturing.

5. PROUDLY CANADIAN PRODUCTS

The Canadian Wool Industry needs a high-value added destination for its wool. This requires research and product development for commercial goods made of 100% pure Canadian wool destined for both domestic and export markets.

The Campaign for Wool in Canada is mapping the apparel, textile and semi-industrial market sectors looking for innovative product opportunities for Canadian wool, through pilot projects, research and development, and brand collaborations.

The Campaign for Wool in Canada, and The Canadian Wool Council, are committed to improving the Canadian wool industry for all stakeholders. Through our actions to-date and with forthcoming initiatives like THE CARPET PLAN we are offering solutions and leadership that blend efficiency, profitability, and environmental sensitivity to benefit all Canadians.

PRODUCT SUMMARY

THE CARPET PLAN examines creating a 100% pure Canadian wool rug with a dual pathway production model offering the greatest cost-benefit diversity with the lowest risk.

The rugs can be made of a 2-ply or 3-ply loose dyed yarn and pass-tufted into a cut-pile, level-loop, or multi-level loop area rug (designer's choice). Available dimensions between 8 M2 and 100 M2.

Wool is loose dyed (dyed before spinning) in 3 to 5 colour ranges and spun to create varying colour blends.

Area rugs are made to order. Sales exclusively through the design trade ensure the products are readily available to the discerning customer. Canadian embassies have also expressed interest in Canadian wool rugs and a distribution model is being considered for this niche clientele.

CRITICAL PATH SUMMARY

THE CARPET PLAN proposes two pathways to manufacturing the rugs.

Pathway 1 sees the rugs manufactured and distributed entirely in Canada. Rugs manufactured in the all-Canadian pipeline are destined for North American markets, as well as Asia, South Africa, and Australia through an innovative and agile distribution service. Recommendations for improvements to the production pipeline are included in this pathway.

Pathway 2 offers fractional transformation in the United Kingdom (UK). This means container shipping Canadian wool to a scouring centre in the UK and then sold to a manufacturing partner. The manufacturer acts as a distribution centre for European markets. The intermediary guarantees only selling to Canadian interests.

YEARS 1 TO 3 - BUILDING THE MODEL

1. ENTERING INTO PARTNERSHIP AGREEMENTS WITH KEY COMPANIES/INDIVIDUALS

- New social collection model
- New social distribution model
- Implementing a traceability system from farm to product end-user

2. SECURING INVESTMENT

- Investment for machinery upgrades (if/as needed)
- Investment for environmental process upgrades (if/as needed)
- Supporting partners in training for skilled labour (if/as needed)

3. STRENGTHENING RELATIONSHIPS WITH THE PRODUCER COMMUNITY

- Launching of a CANADIAN WOOL STANDARD
- Designing and implementing a free shearing model
- Improving wool quality through integrating wool genetic markers¹ in national sheep databases

¹ Genovis/CGIL

4. DISTRIBUTION MODEL

- Engaging a skilled team
- Implanting processes and warehousing from raw to finished material
- Expanding the network with the global design trade through our IWTO partnership
- Multilingual digital marketing campaigns in key countries

YEAR 4 AND 5 - ADAPTING TO POST-COVID REALITIES

An export plan created during a global pandemic requires pragmatism and agility. Global trade remains uncertain with transportation costs reaching unprecedented highs.² Trends in food and product autonomy make The Carpet Plan particularly relevant while keeping in mind the impending post-COVID landscape with shifting its priorities.

1. Continuous re-evaluation of processes against new techniques, technology and trends
2. Expansion of product lines using our existing manufacturing and distribution plan
3. Adopting further accreditation for environmental performance
4. Exploring new market opportunities in commercial and industrial markets

² <https://wool.ca/page/wool-market-reports> The cost of sending a 40' shipping container from a North American port to a China Port has increased by 1000%. THE CARPET PLAN could see some favourable price adjustments if shipping costs return to pre-COVID pricing. All pricing in THE CARPET PLAN is based on current day values (Feb 2022).



TARGET CUSTOMER SUMMARY

The target clientele is the professional design trade in North America, Europe, and Asia.

By making this product available exclusively through the design trade, the product is able to be promoted to retail clients by educated intermediaries well positioned to speak to the unique qualities and capabilities of Canadian wool.

The designer becomes a Canadian carpet ambassador with the support of a resilient distribution centre and strong marketing support. The ideal application for these rugs includes high-end residential, commercial and institutional locations.

THE CARPET PLAN prioritises client demographics in countries where Canadian image, culture, values, and customs are held in high regard.

FINANCIAL SUMMARY

THE CARPET PLAN demonstrates the feasibility of producing 100% pure Canadian wool rugs with the option to have a production and distribution chain based entirely in Canada or the option to take advantage of global manufacturing capabilities to improve market access.

A finished, made-to-order rug, produced to colour and size specs, on demand will retail at \$300/M² - well within the global price standard for the targeted customer demographic.¹

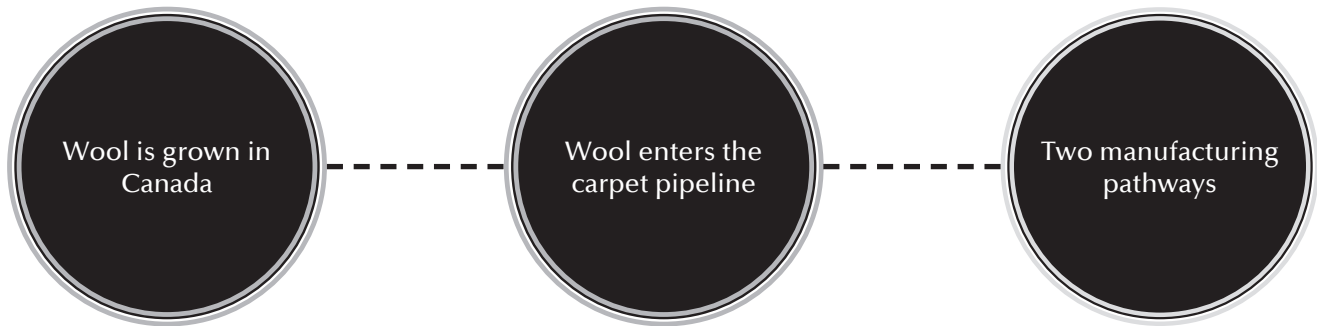
Detailed financial models can be found in Part 2.

¹ All pricing in the CARPET PLAN is in Canadian Dollars. All measurement values are in Metric Measure.

PART 2



CRITICAL PATH DIAGRAM



OPTIMIZING THE CANADIAN CLIP

In December 2020, CFW/CWC formed the Canadian Wool Domestic & International Affairs Committee with a working group to draft THE CANADIAN WOOL STANDARD.

THE WOOL STANDARD is a framework to support meat- and fibre-breed sheep farmers to care for wool for maximum economic value and transformation potential.

THE WOOL STANDARD considers the requirements of all stakeholders in the wool pipeline and will be drafted by farmers and wool experts for sheep and lamb producers interested in optimizing their wool clip.

WOOL ENTERS THE CARPET PIPELINE

In May 2021, CFW/CWC published THE WOOL PLAN 2021 - 2026, a five-year strategy to reinvigorate the Canadian wool industry. The plan identified considerable wool pipeline disruption caused by the absence of an accessible, cohesive shearing industry.

THE WOOL PLAN 2021 - 2026 proposes creating a shearing guild whereby participating Canadian farmers could opt-in to free shearing services in exchange for their wool.

The objective of THE SHEARING PLAN is to lessen the burden of wool collection on the farmer. Farmers who prefer the tradition model of paying for their own shearer and selling their wool to the carpet pipeline, at a premium price per kilogram, will not be penalised.

THE CARPET PLAN model works equally for either shearing option: Free shearing/free wool or paid shearing/paid wool. Either option yields the same financial benefit.

THE CARPET PLAN identifies two parallel pathways toward manufacturing, each returning equal benefit to the Canadian sheep industry.

Pathway 1: End-to-end Canadian Manufacturing: Canadian wool is purchased at the farm gate for a premium price per kilogram and enters an entirely Canadian manufacturing pathway. Canadian Carpets are distributed to the North American, Asian and Australian markets.

Pathway 2: UK Fractional Manufacturing or End-to-End Carpet Manufacturing: Canadian wool is purchased at the farm gate for a premium price per kilogram and enters a UK manufacturing pathway. Wool is sold post-scouring to a UK supply-chain intermediary who warehouses the wool for future orders destined to foreign markets. This ultra-lean business model ensures that a consistent supply of Canadian wool is on hand in Europe as required. Completed products are handed over to the Canadian distributor for final delivery.

**PATHWAY 1
END-TO-END CANADIAN
MANUFACTURING**

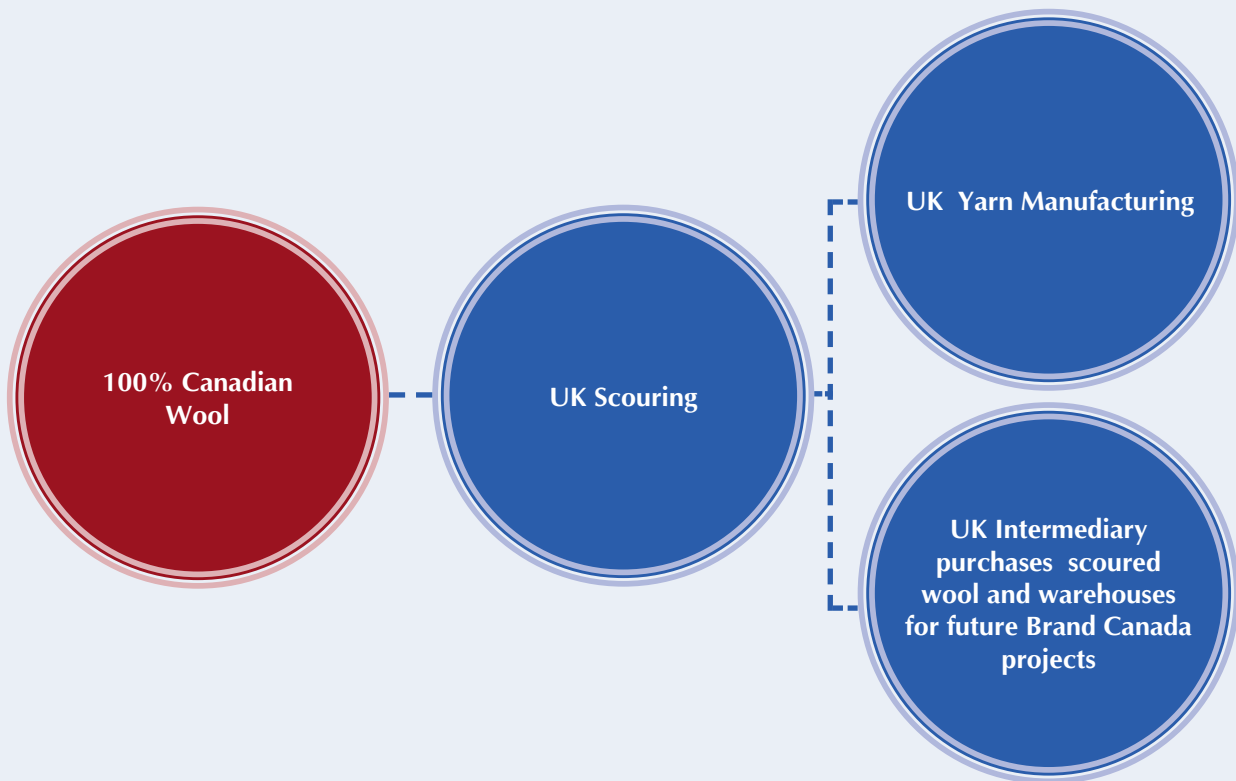


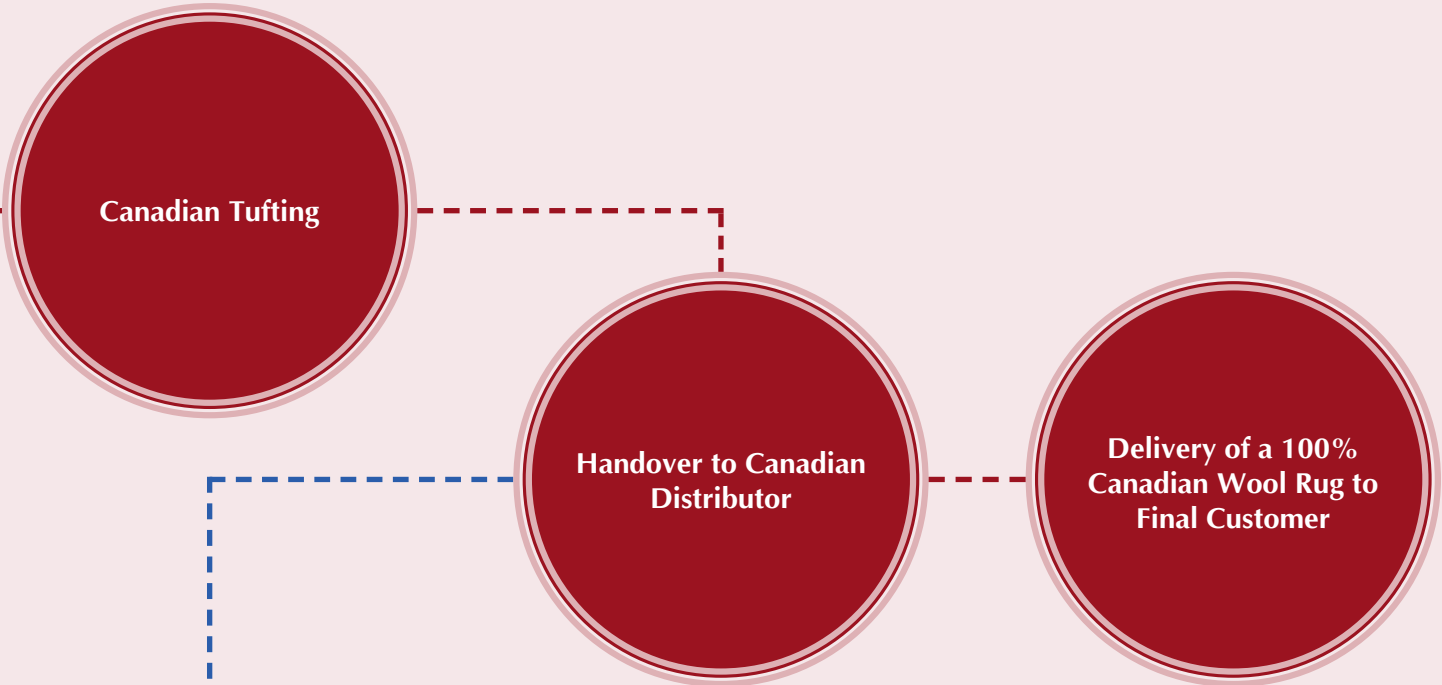
UNDERSTANDING THE DUAL PATHWAY MODEL

The diagram shown here displays the dual pathway model which offers greater flexibility and control over processing variables. Wool harvesting and collection happens in Canada, then grease wool enters one or both pathways for transformation.

Note that carpet manufacturing can happen along both pathways at relatively similar pricing. Canada has some small advantages over the UK and vice versa. Generally speaking, the UK is more competitive on pricing and production times, however shipping is costly and unpredictable.

**PATHWAY 2
UK FRACTIONAL MANUFACTURING
OR END-TO-END CARPET
MANUFACTURING**





THE CARPET PLAN proposes an assertive social giveback standard to the Canadian wool industry. Recognizing that a traditional distribution model in the flooring sector comes at a significant expense, given the relatively modest size of the 100% pure Canadian wool rug industry, THE CARPET PLAN proposes a leaner, more contemporary model where a Canadian Distributor Partnership is formed by Canadian supply chain stakeholders who oversee end-to-end distribution to the global design trade. The notion of forming a distribution consortium comprised of supply chain stakeholders has been validated through plan discussions.



PATHWAY 1: THE CANADIAN PATHWAY

The Canadian pathway is the gateway to markets in North America, Asia, South Africa, and Australia. It sees 100% of manufacturing and distribution happening on Canadian soil. Wool harvesting and collection will look the same whether wool is destined for the Canadian pathway or the UK pathway.

WOOL HARVEST AND COLLECTION

Stakeholder: Wool Producers + Shearing Team/Classers

Wool is harvested and collected at the farm gate and farmer payout happens expediently. In the start-up phase of the project (year 1 to 3 approximately), wool from Ontario and Quebec are prioritised due to ease of transport and quantity of wool available from the two largest sheep producing provinces. As processes become more predictable, wool collection from other provinces will be possible and carpet production can expand.

SCOURING

Stakeholder: Bainton's The Old Mill

Wool is delivered to Bainton's The Old Mill; Canada's only remaining medium-scale scouring facility in Blythe, Ontario. For the estimated quantity of wool in this project (300,000kg /annually), 60 working days would be required if the scourer uses a larger capacity machine already in their possession but is currently not in operation due to lack of demand. Note that the entire wool quantity estimate would not be delivered to the scourer in one lot. It would be delivered over 3 lots annually. Therefore, 20 working days to transform a third of the annual wool quantity.

CARDING, DYEING, SPINNING

Stakeholder: Filature Lemieux Inc.

Wool is delivered to Filature Lemieux Inc.; a globally recognized carpet spinner in Quebec. Transport between the scouring facility and the spinning facility is approximately 1,000 km (10 hours). Here, the wool is carded and then dyed in 3 to 5 natural colour ranges. This facility offers a proprietary dye technique called Eco-Naturelle.¹ The technique involves dividing fibres according to their natural colour intensity (whites, browns, greys, black) and loose dyeing² them according to their original hues. Regardless of which company is facilitating the spinning, it is always recommended to use some dye to cover and blend residual vegetable matter contamination in wool. After dyeing, the wool is spun into 2-ply or 3-ply carpet yarn 2/42s or 3/55s Count.³ Final yarn colours will be calculated by blending the various hues together in a predetermined formula. Yarn will be gathered into hanks as opposed to cones in order to reduce transportation costs. By virtue of their shape, yarn spun into cones takes up more space in a shipping container whereas hanks will lay flat and compact for shipping.

¹ <https://www.lemieuxspinning.com/produit/fils-de-laine-collection-eco-naturelle>

² Loose dyeing means dyeing before spinning

³ The length of one ounce (oz) of yarn in yards is called a woollen count or Dewsbury Count. The fineness of yarn increases when yarn count increases in this system.

TUFTING

Stakeholder: Cabernet Carpets

Cabernet Carpets is North America's only remaining carpet tufting company. They are located in Waterloo, Ontario. Distance from the spinning facility to the tufting facility is approximately 915 km (9 hours). They were chosen as the official collaborator on the Canadian Wool Rug pilot project in 2021 and they continue to manufacture bespoke wool carpets. They have carpet manufacturing capabilities using hand tufting or pass tufting in 100% pure Canadian wool. For the purpose of the CARPET PLAN, they propose a pass tufting process where a machine can semi-automate the carpet tufting process to enable more efficient production. A pass tufting machine will produce 18" bands of carpet tufting at a time. Their staff are trained on pass-tufting machines however they sold their machine several years ago and would need to acquire a new machine with a short re-certification program for their staff. After the carpet tufting process is complete, Cabernet Carpets will apply the edging and the necessary tags. The product will be packaged and shipped into final delivery under the guidance of the distributor.

DISTRIBUTION

Stakeholder: Consortium Lean Distribution

Distribution will be handled through a collaborative arrangement. Refer to Part 5 for more information on the configuration of carpet distribution.

CARPET FINANCIAL MODEL

Pathway 1: Canadian Manufacturing Model, detailed

An end-to-end processing roadmap

All calculations in kilograms* / Canadian Dollars

Starting assumptions

Greased wool qty	Producer Payout /kg	Producer Payout
300,000 kg	\$3.00	\$900,000

	Starting Quantity (kg)	Loss %	Unit Cost /kg	Total Cost
Payout to producer	300,000	0	\$3.00	\$900,000
Scouring	300,000	44%	\$1.00	\$300,000
Dyeing and Spinning	168,000	10%	\$18.21	\$3,059,280
Tufting	75,600	10%	\$124.00	\$8,436,960
			Total Manufacturing	\$12,696,240

Output assumptions

\$/M2
\$186.50

Shipping assumptions

Shipping per M2/kilo
\$2.00

Post-manufacturing assumptions

Shipping per M2/kilo
\$2.00

Process	Unit cost/M2	Total Cost
Marketing	10%	\$18.66
Sales and Admin	15%	\$27.99
Social Giveback to the Wool Industry	15%	\$27.99
Miscellaneous Expenses	15%	\$27.99
	Retail Price/M2	\$289.23

1. Notice to Reader: Table 4 uses metric measure (kg). In Canada, it is common to use both imperial (lb) and metric (kg) measurements when quoting wool weight. Some producers will talk about quantities of wool in pounds. Others prefer to quote in kilos. THE CARPET PLAN uses metric measure in order to simplify communication and improve on accuracy with supply chain manufactures who tend to use metric measures exclusively.

Quick Conversions kg to lb

\$/kg ÷ 2.2046 = \$/lb 0.453592 kg = 1 lb
 \$/lbs * 2.2046 = \$/kg 300,000 kg = 661,386 lb
 \$3.00/kg = \$1.36/lb

2. Wool purchased at \$3.00/kg is an opening price based on current average state of wool. In 2021, The Campaign for Wool in Canada set a challenge to raise the floor price of wool to \$2.00/lb or \$6.61/kg. Wool prices will rise to the goal level with slight modifications to wool care techniques.

3. Yield on greased wool improves with modified wool handling techniques. Improved wool handling techniques will reduce the amount of actual wool fibre lost in scouring and spinning. The benefits to wool producers are two-fold: a) Low VM wool is worth more at the farm gate. b) Improved yeild means more wool fibre available at end stage processing, which results in reduced production cost. Lower production cost means the end product price point comes down, making the product more competitive in the market place. More customers can afford the product therefore more product demand (higher volume sales). If the end product remains a luxury item, there's an improved potential for price negotiation for the producer.

4. Covid-19 distruptions to the shipping sector have caused rapid price inflation. Forecasts predict that shipping trends will stabilize and return to pre-pandemic levels once Covid-19 subsides. Experts agree there is no clear timeline of when that will happen but there is reason to be optimistic that shipping prices will be negotiable once the 100% Pure Canadian Rugs goes into manufacturing. Emerging trends in shipping (post-pandemic) could also make transportation costs more competitive.

5. Yield on greased wool improves with modified wool handling techniques. Improved wool handling techniques will reduce the amount of actual wool fibre lost in scouring and spinning. The benefits to wool producers are two-fold: a) Low VM wool is worth more at the farm gate. b) Improved yeild means more wool fibre available at end stage processing, which results in reduced production cost. Lower production cost means the end product price point comes down, making the product more competitive in the market place. More customers can afford the product therefore more product demand (higher volume sales). If the end product remains a luxury item, there's an improved potential for price negotiation for the producer.

PATHWAY 2: THE UK PATHWAY

FRACTIONAL OR END-TO-END PROCESSING

The UK pathway is the gateway to European markets. In itself, it offers multiple processing options for greater flexibility. In past years, the United Kingdom has surged ahead in wool textile transformation. While they've witnessed the impacts of a harsh global wool trade, they've nevertheless insulated themselves from the impact by building their own product development and manufacturing supply chains to impressive success.

To their credit, they've expanded their reach to neighbouring countries with beleaguered wool industries and mentored them into a now-thriving wool economies. The United Kingdom has helped other countries to better manage their domestic wool supplies to the benefit of local wool growers.

FRACTIONAL PROCESSING

The term "fractional processing" means that Canadian wool would only go through a fraction of the processing pathway under Canadian ownership. After early stage processing, Canadian wool would be sold to an intermediary, who then manages the balance of production. The wool clip remains intact as "Pure Canadian Wool" and would not be sold off for blending. The wool would be warehoused in appropriate conditions in the UK until requests for next stage processing are received. Requests for processing could come from the CARPET PLAN initiative, or another Canadian-led initiative. Simply put, the intermediary assures there is a supply of clean, scoured, baled wool on hand in the UK for a range of new products. Selling to the intermediary ensures that profits on sold wool come back to the Canadian industry quickly.

END-TO-END PROCESSING

The UK has capabilities for end-to-end manufacturing of 100% pure Canadian wool rugs. The process is identical to the Canadian Pathway model.

WOOL HARVEST AND COLLECTION

Stakeholder: Wool Producers + Shearer Team/Classers

Wool is harvested and collected. The process remains the same whether the wool is processed in through the Canadian Pathway or the UK pathway.

SCOURING

Stakeholder: Haworth Scouring Company

Haworth Scouring is a global leader in scouring and grey water management. Their scouring facility is located in Bradford UK, about 120 km (1.5 hours) from the Port of Liverpool. Wool arrives in the UK by container shipment out of the Port of Montreal. Crossing time is estimated to take 4 days once cargo is deployed. The variable is that shipping is often delayed in any global port. During Covid, global ports have seen record delays.¹ This makes UK processing less reliable from a time-delay perspective. Therefore the UK pathway varies from the more reliable, if slightly less efficient, Canadian Pathway. Wool into Haworth can be scoured in a matter of a few days.

CARDING, DYEING, SPINNING

Stakeholder: Lawton Yarn

Lawton Yarn is a mid-stage processor with expertise in the interiors market (spinning for carpet and upholstery). Their spinning facility is located in Dewsbury, UK about 15 km (30 minutes) from the scouring facility making transportation between the two centres effortless. Lawton Yarn has the capability of transforming Canadian wool to the specifications indicated in THE CARPET PLAN. They will card, loose dye (stock dye) and spin to specification.

TUFTING

Stakeholder: Cavalier Carpets

Cavalier Carpets is a respected carpet tufting company located in Blackburn, UK approximately 80 km (1 hour) from the spinning company recommended by Lawton Yarn. At the time of writing, Cavalier Carpets has yet to submit a quote for tufting but it's reasonable to expect the price will be comparable to Canadian tufting due to their extended capacity.

DISTRIBUTION

Stakeholder: Consortium Lean Distribution

Distribution will be handled through a collaborative arrangement. Refer to Part 5 for more information on the configuration of carpet distribution.

¹ <https://www.bloomberg.com/news/articles/2021-10-17/port-gridlock-stretches-supply-lines-thin-in-blow-for-economies>

CARPET FINANCIAL MODEL

Pathway 2: UK Manufacturing Model

A fractional processing roadmap¹

All calculations in kilograms / Canadian Dollars

Starting assumptions

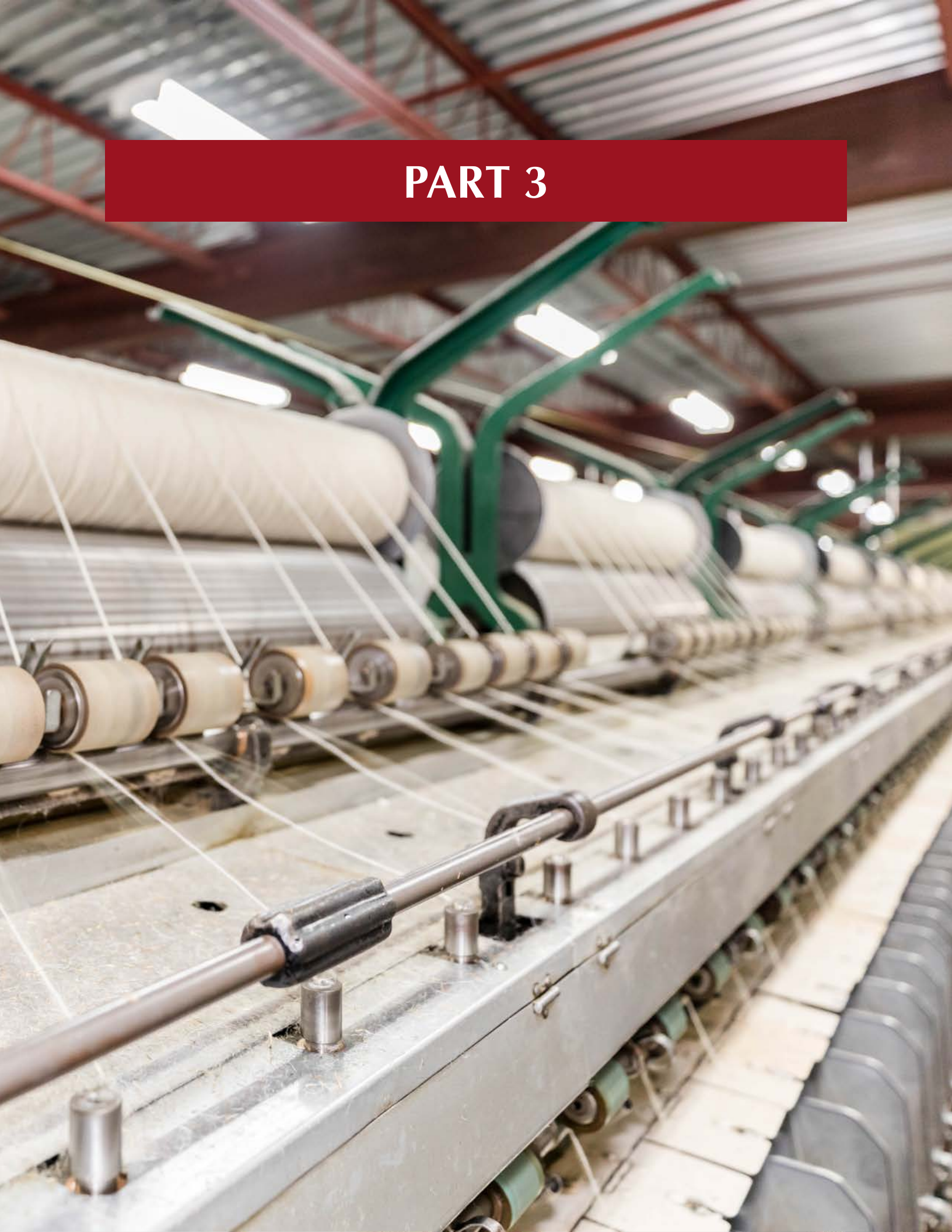
Greased wool qty	Producer Payout /kg	Producer Payout
300,000 kg	\$3.00	\$900,000

	Starting Quantity (kg)	Loss %	Unit Cost /kg	Total Cost
Payout to producer	300,000	0%	\$3.00	\$900,000
First Stage Processing	300,000	40%	\$0.58	\$174,000
Shipping and Fees	300,000	0%	\$1.00	\$300,000
				\$1,374,000
Wool is sold to UK intermediary for warehousing and reserved exclusively for Canadian innovators	180,000	0%	\$8.00	\$1,440,000
Profit on wool sale to intermediary				\$66,000

1. Fractional processing means wool is sold to an agent at the farm gate. The agent manages shipping to the UK for first stage processing. Next, the agent manages resale to an intermediary who has second-stage processing capabilities. The intermediary agrees to a fixed purchase price and warehouses Canadian wool until processing orders are received. This enables 3 things: a) the intermediary is able to manage the production schedule more efficiently to improve yield. b) Canadian farmers are assured premium pricing. c) A quantity of 100% Canadian wool is on-hand overseas to manufacture products destined for foreign markets.

2. The benefit of selling wool at a profit means immediate financial gains for the Canadian industry. The drawback of selling wool at a profit is that next-stage processing will cost more to accommodate the profit margin already paid back to the Canadian industry. A cost-benefit analysis will be necessary to determine the true impact on pricing of the end product.

PART 3



UNDERSTANDING WOOL FOR THE INTERIORS MARKET

The versatility of wool in the clothing industry is well established but fewer consumers are aware of the many ways in which this amazing natural fibre can be used to enrich home interiors. The International Wool Textile Organisation (IWTO) explains why wool is the perfect choice for a wide variety of uses in home interiors.

WHY CHOOSE WOOL FOR YOUR HOME INTERIORS

From bedding to curtains and rugs, wool features in a wide variety of quality home interior components. No matter what design it is used in, wool imbues each piece with a homey sense of comfort and relaxation. As a natural, biodegradable fibre, it also improves air quality and dramatically lowers a home's impact on the environment.

Beauty and Comfort

In addition to lending itself readily to a variety of styles, wool is the quintessential "comfort fabric." What better way to adorn bedrooms and living rooms than with a material that represents natural warmth, wellness and a sense of protection against the elements?

HEALTH AND SAFETY

Beauty and comfort aside, wool is also a very good practical choice for decorating interior spaces. It is highly flame-resistant, and because it does not produce volatile organic compounds (VOCs), it also improves air quality. In addition, it is an excellent sound insulating material, which means it can help you create quieter, more peaceful spaces, absorbing and dampening both low and high-frequency sound.

ECO-FRIENDLY

Wool is 100% natural and humanely sourced from sheep who are well cared for in accordance with international standards. Wool textiles are easy to care for, requiring less frequent washing than textiles made from other materials. This increases their longevity, which makes wool a good choice for sustainability. Because wool is a protein-based natural fibre, it will naturally decompose in soil. And unlike synthetic fibres, wool does not contribute to microplastic pollution.

UNDERSTANDING WOOL VERSUS SYNTHETIC FIBRE CARPETS

Without question, synthetic broadloom carpet dominates the global carpet industry. Today, synthetic carpet can be machine manufactured to varying levels of quality and affordability with relative efficiency.

Synthetic fibre carpets are made by blending various plastic compounds and dyes in liquid form into a vat. Once mixed, the liquid is poured or fed into an extruder that will extrude or emit a continuous string of coloured, flexible, plastic filament resembling yarn. The filament is cut to appropriate lengths depending on the end use.

The synthetic fibre extrusion process used in broadloom manufacturing has a certain appeal because over time, R&D in synthetics has learned to produce a fibre filament that looks quite natural. In the early days of synthetic carpet manufacturing, the finished product had a rather flat, shiny finish. Through improved recipes, chemicals and formulas, today's synthetic carpets are engineered to look like wool, silk or other natural fibres. The time it takes to produce a synthetic carpet is only a small fraction of the time it takes to produce a wool carpet.

In terms of performance however, synthetics can't compete with wool carpets because they lack the properties of natural fibre. A plastic filament fibre is hollow whereas a wool fibre is made of protein and yields the same benefits in a carpet as when the wool is on the animal. Wool is ultra stain resistant and durable. It's easier to maintain and will trap dust and airborne particles until vacuuming. It doesn't emit Volatile Organic Compounds (VOC Emissions) and environmental pollutants like synthetic carpets. On the contrary, it traps the existing environmental pollutants in the room and sequesters them indefinitely. A wool carpet will not re-emit pollutants even when heated. Wool is the only fibre, natural or synthetic, that can capture environmental pollutants without re-emitting the pollutant when the fibre warms up.

Even though wool has difficulty competing with synthetic carpet in certain price categories, the consumer is becoming more aware of the negative effects of producing synthetic, non-biodegradable products on the environment and the health hazards of living in a home with an abundance of products producing VOCs. Consumers are showing growing interest in natural products with traceability along the value chain.

UNDERSTANDING WOOL CARPET MANUFACTURING

THE PROCESS

Natural wool carpet manufacturing goes through six processing phases regardless of where the carpets are manufactured.

Below is a detailed description of each phase of the process, including specifications to execute each of these phases with the dual-pathway model. Some upgrades merit consideration to make this supply chain the envy of the global wool industry. Surprisingly, Canada is already highly regarded in the bespoke carpet sector. Production adjustments are warranted given the strong track record that Canada already holds.

STAGE 1: WOOL HARVESTING

Wool Harvesting refers to the care of the animal and the wool throughout the fibre growing cycle, as well as the process of shearing and gathering the wool from the shearing floor for sorting, skirting and bagging.

Typically, Canadian farmers shear once or twice a year.¹ Shearing coincides with seasons and/or with lambing. Shearing is a mandatory step in caring for sheep. Certain animal advocacy groups purport that shearing is cruel to the animal, however this is entirely false, defamatory and aims only to confuse consumers. Sheep must be shorn for the comfort, health and safety of the animal and its progeny.

Canadian farmers will see greater rewards for their wool by making slight modifications to wool care techniques. The Campaign for Wool in Canada has formed a working group² to identify protocols for improving vegetable and applied contamination levels in wool. Following the creation of these protocols, the Campaign for Wool in Canada will distribute this information widely to the producer at no charge. The aim is to empower the producer with information that helps them make appropriate process decisions for their farm business.

Ideally, Canadian farmers should be aiming to have under 2.2% contamination. Currently, Canadian wool checks in at around 3.5% contamination. In practical terms:

- 300,000 kg of grease wool with 3.5%-4% contamination results in 40%-45% loss of fibre in scouring.
- 300,000 kg of grease wool with 2%-2.5% contamination results in 30% loss of fibre in scouring.
- By reducing contamination by 1%-1.5%, the Canadian wool industry is gaining 10% more wool into its production chain.
- The Canadian industry will also see the cost of scouring reduced because less effort/output is required to scour less contamination

¹ <https://www.sheepcentral.com/queensland-research-shows-sheep-shorn-twice-are-less-stressed/>

² Canadian Wool Domestic and International Affairs Committee. Canadian Wool Policy and Canadian Wool Standard Working Group information available in the appendix.

Research into THE WOOL PLAN 2021-2026 indicated there was interest among Canadian farmers for a new shearing model.³ The vision proposed in THE WOOL PLAN offers free shearing to participating farms in exchange for their wool.

The shearing model recognizes:

- Canadian farmers have extremely high standards when raising sheep.
- Canadian sheep grow a superior quality wool despite their medium micron range found in most breeds.
- Canadian farmers are working at maximum capacity in terms of time, money, and labour resources.
- Canadian farmers find shearing costly with shearers in short supply in many regions in Canada.
- Canadian farmers would greatly benefit from additional resources and support in the shearing phase.

The shearing model proposes:

- Framework to offer free shearing for participating farms in exchange for wool.
- A booking system where the farmer books a shearing team composed of a shearer, a wool assistant and necessary tools, materials and supplies.
- At the end of the shearing day, the shearer and wool assistant leave with bagged wool.
- The shearing service is at no-cost to the farmer.

STAGE 2: WOOL COLLECTION

Overview

Wool Collection refers to the process of collecting the wool, paying the farmer and entering the wool into the processing pipeline.

In this agile model, the objective is to keep the wool moving along the processing pipeline, thereby avoiding excessive warehousing. From farmgate to scouring centre, and into later-stage processing, the wool is in the care of our skilled processing partners who have expertise and the proper environmental conditions to house the wool. This keeps the value of the wool at its highest point per processing stage.

Agility in this model extends to payment terms to the farmer. Research has shown that one of the primary grievances in agriculture is slow payouts. An automated process has been identified to ensure farmers have short turnaround time for their wool payment (as low as 5 days).

Shipping remains a costly bottleneck everywhere however the two-pronged pathway model makes the best of each situation.

Details specific to the Canadian Pathway

In the Canadian pathway, knowing the precise processing schedule allows for

³ See the Appendix for excerpts from THE WOOL PLAN 2021-2026 on the Shearing Model



innovative logistics and shipping solutions.

Details specific to the UK Pathway

In the UK pathway, there is no precise processing schedule at the outset, therefore, more flexibility at the Port of Montreal where the container would exit Canada.

STAGE 3: SCOURING

Overview

Scouring is the process of washing the wool in preparation for further transformation. Scouring is defined by several stages.

Greasy wool containing wool grease (lanolin), dirt and other vegetable material is loaded onto a large conveyor where excess dirt and vegetable matter is removed from the wool prior to washing without damage to the fibre. This stage is called raw wool loading or tumbling.

The greasy wool is then conveyed through a series of temperature-controlled wash bowls containing biodegradable detergent which removes the wool grease, dirt, and debris from the fibres before going through a series of rinse bowls. This is the actual

scouring stage.

A series of specific temperature-controlled dryers dries the wool, and a moisture management system provides a best fit for specified moisture regain values. As needed, a specially designed unit can suck extra dust and fibrous debris from the scoured wool without damaging or altering the style of the wool. This is the drying stage. Wool is press packed in bales of approximately 300-350kg and shipped out to the next stage of transformation.

Details specific to the Canadian Pathway

Canada has a scouring facility in Ontario capable of managing the quantities of wool this project demands. Upon inquiry, the facility currently has a daily capacity of scouring 2,500 kg of wool. With a consistent wool supply and machine adjustments, a larger scouring unit with a 5,000kg daily capacity can be employed. The scouring centre director indicated a keen interest in the project and relished an opportunity to further improve the environmental integrity of their services. Further exploration is needed to identify the appropriate enhancements.

Details specific to the UK Pathway

The UK scouring facility identified in this plan is one of the world's top centres for grey water management and environmental footprint control. With an industrial capacity, they can process the entire Canadian wool clip in under one week. Quantities of wool allotted for this plan could be scoured in a matter of a couple of days.

STAGE 4: CARDING, DYEING AND SPINNING

Overview

Carding is the process of combing out the wool so the individual fibres lie parallel to one another in preparation for spinning the wool into yarn. In the textile lexicon the carded wool is referred to as "tops" or "wool tops".

Spinning is the process of drawing on the carded fibres and twisting them together to form a continuous thread or yarn. A customer will order the diameter of thread or yarn appropriate for the production of the end product. This is called the thread score.

The thread or yarn is wound around a cone or formed into hanks or skeins. Cones are common in the industrial textile sector while hanks and skeins are more common in small scale artisanal production. However, hanks are becoming more common because they are more economical to ship. A rigid cone will take up more space in a shipping container than a hank, which can flat and be stacked. A hank is considered better for maintaining the quality of the fibre.

Details specific to the Canadian Pathway

Canada is home to one of the world's foremost bespoke carpet spinners. Their facility has the capacity to card, loose dye and spin the quantity of wool allotted for this plan. They already work closely with the Global Campaign for Wool and other partners identified in the production chain. They are in a position to increase production if some provincial legislation

in the textile manufacturing sector were to be brought into alignment with legislation for other sectors. Namely, the foreign worker cap. The Campaign for Wool in Canada, with its parliamentary relationships, is seeking more information to better understand the bottleneck.

Details specific to the UK Pathway

Carding, dyeing and spinning in the UK is located within close proximity to the UK scourer in an efficient, closed-loop textile region. In the case of the UK pathway, the carding, spinning and dyeing company acts as an intermediary who will buy the Canadian wool at an agreed price and manage it on Canada's behalf into next stage processing and final delivery to European, other foreign markets.

Buying Canadian scoured wool is a benefit to the intermediary because they can better control and monitor production schedules to manage fibre yield. Wool spun in higher humidity will experience lower yield whereas wool spun in moderate to ideal humidity will improve yield. The outcome is more wool entering the late-stage processing.

The intermediary will manage completion of processing on behalf of the Canadian distribution team. The intermediary's margins are carried forward to the tufting process which is generally less expensive in the UK due to volume than in Canada. The result is that carpet production costs work out evenly on both pathways. The benefit of having some of the carpets produced in the UK is the predictability of shipping. It's easier to predict timelines in getting carpets to the global market from the UK rather than from Canada.

STAGE 5: TUFTING AND FINISHING

Overview

Tufting is a needle punch process in carpet manufacturing. Tufting can be done by hand, by machine or using a pass-tufter machine which semi-automates the hand tufting process.

A tufting machine has hundreds of needles that insert loops of yarn into the primary backing of the carpet. Yarn is fed from a creel to the needles; one cone of yarn for each needle. The carpet is manufactured upside down so the needles punch the carpet backing to insert the yarn.

Pass-tufting is the most efficient option for small scale rug production. It yields the bespoke quality of hand tufting but a machine amplifies the production rate to turn out 18" bands of the carpet at a time.

Details specific to the Canadian Pathway

Recent changes in the North American carpet manufacturing sector means that Canada has one of the last remaining natural fibre carpet tufting centres in North America. While there are several large-capacity, synthetic broadloom manufacturers in the US, their business models are unstable and none work with natural fibre.

Canada's last remaining hand tufting company is in high demand, willing and able to expand production to include this project. They recommend pass-tufting for this project and believe that with minimal investment their company could be in a position to offer pass-tufting services to expedite production. Their staff is already trained in pass-tufting and would only require a training refresher to bring a pass-tufting machine back into production.

Details specific to the UK Pathway

The UK is home to a well-respected carpet tufting centre located in close proximity to the UK scourer and the intermediary within the closed-loop processing network. They're a larger scale facility that can easily handle this project size.

STAGE 6: DISTRIBUTION

Overview

Traditional carpet distribution models haven't evolved much in the past decade or more. Profit margins, operations and logistics remain fixed and standardised at a rate of approximately 30% of the retail price tag. While certain innovations like customer-direct online orders have poked through the crowd to offer a bit of savings, these variations have logistics drawbacks, especially in Canada, making them unrealistic for THE CARPET PLAN.

Recognizing that Canada will produce a niche quantity of luxury rugs annually, the traditional distribution model needed to be upgraded. Keeping the focus on agility and social giveback to the Canadian wool industry, THE CARPET PLAN proposes forming a consortium of supply chain stakeholders to manage a lean distribution model. The consortium will operate as a micro-coop of industry experts with a portion of sales returning to the supply chain. The supply chain could include processors, manufacturers, existing distributors who want a stake in a 100% Canadian product, designers etc...)

As noted above, traditional distribution models appear to account for approximately 30% of the retail price of a rug per square metre. The consortium model ensures that 30% of retail sales is redistributed among the stakeholders (10% social giveback to the Canadian wool industry + 10% for salaries and administration costs + 10% for the consortium owners)

Preliminary discussions with supply chain stakeholders indicate a favourable response to the plan.

UNDERSTANDING THE 100% PURE CANADIAN WOOL RUG

Wool rugs fall into the category of natural carpets. Interest in natural carpets and other sustainable products is on the rise globally.

“As our society becomes more technologically advanced and modernised, we’re seeing an interesting design trend: spaces are frequently dotted with natural elements in an effort to “go back to our roots” and create a sense of peace with the outside world. We see this play out in the carpet and rug industry with a trend toward natural fibre rugs.”¹

“This is a huge draw in our modern economy — in fact, more than 50 percent of people and businesses say they are willing to spend more for an eco-friendly product, and that number skyrockets to nearly 75 percent among millennials.”²

BENEFITS OF NATURAL FIBRE CARPET

- Natural Renewable Fibre
- Passive Air Filtration
- Fire Resistant
- Offers thermal and sound insulation
- Stain Repellant
- Easy Care / Easy Maintenance
- Biodegradable in land and marine environments to 100%³

100% CANADIAN WOOL RUGS

See lexicon in appendix for carpet terminology

While there is nothing new about a wool rug, a 100% pure Canadian wool rug is a newcomer to the luxury floorcovering market. The product is intended to be a luxury item with an appropriately aspirational price tag. The rug’s appeal centres not only on the high quality of the rug itself but also the possibility of owning something so distinctly Canadian. The rug is an “almost-bespoke” product with a more modest price. With size, colour and style variations, the buyer will have some curatorial control over the rug’s finished look. Regardless of the look and the finishes selected, the rug is imbued with a sense of the vastness of the Canadian landscape and the values of its people.

SPECIFICATIONS

- Customizable 100% pure Canadian wool area rugs.
- Rugs are pass-tufted, combining the unique elegance of hand-tufting with the benefit of an efficient, semi-automated pass-tufting process monitored by skilled tradespeople.
- Pure premium-quality Canadian wool, harvested and scoured, carded, loose/stock dyed and spun to 2-ply or 3-ply (2/42s 3/55s) yarn then tufted to cut pile, level loop or multi level loop area rugs

¹ <https://endlessknotrugs.com/2019/10/10/what-are-natural-fiber-carpets-and-why-are-they-a-growing-trend/>

² <https://endlessknotrugs.com/2019/10/10/what-are-natural-fiber-carpets-and-why-are-they-a-growing-trend/>

³ <https://iwto.org/study-confirms-wool-fibres-readily-biodegrade-in-marine-environments/>

- 8 gauge, 1600 g/meter weight
- Natural jute backing
- Range of natural colours in hues that pay homage to the Canadian landscapes
- Motifs inspired by Canada's wool legacy and aboriginal heritage may be incorporated
- Custom sizes, made to order, from 8 to 200 square metres
- Selection of 100% natural edging options finishes the carpet's look
- Appropriately tagged and packaged
- Product destined for the design trade in select countries
- Product is appropriate for luxury residential spaces and high-end, light-commercial spaces such as boardrooms, meeting rooms and intimate reception spaces
- Precise carpet design overseen by prominent Canadian designers capturing an authentically Canadian identity while considering the needs of the global design trade
- Trade patents will be sought

Spin off products could include:

- Woven or felted upholstery in complementary colours / motifs.
- Sculptural, felted wall panels for sound-proofing and visual interest.
- Carpet backing made from other natural fibres grown in Canada like hemp.

PART 4



THE CANADIAN AND AMERICAN CARPET INDUSTRY OVERVIEW

A survey of the Canadian and American carpet manufacturing sector concluded the best path for Canadian wool is a 100% pure Canadian wool area rug, pass tufted, with natural dye and no additional applications of synthetic treatments or protective finishes (Ex: Scotchgard). There are very few North American companies who are equipped to play a role in delivering this product. The Carpet Plan has been built in close collaboration with the supply chain to ensure the accuracy of information.

THE SYNTHETIC CARPET INDUSTRY

The Canadian and the American carpet manufacturing sector is dominated by only a few companies, all of whom specialise in synthetic broadloom.

In Canada, the eastern provinces had the lead in carpet manufacturing however many of these companies have been sold, amalgamated, or closed. Crossley Carpets in Truro, NS was sold to a Georgia-based manufacturer who moved production to the US and sold the machinery to Pennsylvania. Beaulieu Canada, based in Quebec continues to dominate the global synthetic carpet industry with their plant in Canada and a plant in Belgium. In the United States (US), manufacturing takes place mostly in Georgia, North Carolina and Pennsylvania. Georgia is the hub of the US industry with a massive footprint comprising various smaller companies.

It is surprising and disappointing to notice such a lack of transparency in synthetic carpet operations. Instances of retailers promoting themselves as distributors and distributors advertising themselves as manufacturers are frequent. The advisors on THE CARPET PLAN were helpful in pointing out that access to information is difficult to obtain and often unreliable.

THE WOOL CARPET INDUSTRY

The wool carpet sector is much more transparent and keen to work with new innovators. Traceability and environmental sensitivity are at the height of their priority. Most companies identified in THE CARPET PLAN were forthcoming with information on their processes and their operations and also with areas where they would like to improve. Overall, the main figures in the wool carpet manufacturing sector said customer demand for quality and transparency drive the direction of their companies.

At the time of writing THE CARPET PLAN, the US had no wool carpet manufacturing capabilities. They had scouring capabilities with a waitlist. No wool fibre spinning and no carpet tufting capabilities.

At the time of writing, Canada is home to one of the world's most respected carpet spinners - Filature Lemieux in Saint-Éphrem-de-Beauce, Quebec - and also home to North America's only remaining carpet tufting company - Cabernet Carpets in Waterloo, Ontario Canada. Canada also has a respected scouring centre - Bainton's Old Mill in Blythe, Ontario - who has expertise and the ability to scale up production to meet the demands of this project.

Internationally, the UK dominates in wool carpet manufacturing. They have an impressive closed loop carpet manufacturing region near Leeds that is efficient in end-to-end processing. A good working relationship between all the stakeholders in the closed loop value chain makes doing business easy and pleasant. The UK also has a strong social giveback track record to the wool industry. This is something The Campaign for Wool In Canada intends to replicate.

TARGET CUSTOMER

Selling to the design trade

The intention is to sell rugs through the design trade and empower designers to properly represent this product to their customers through enhanced marketing and branding support from the distributor. Working through the design trade means better control over ordering mistakes and end-user satisfaction. In this scenario, the designer becomes the product ambassador and by extension a Canadian culture ambassador.

THE END USER

The end user falls into two categories:

- Residential user: The residential user is an individual or a family with little or no connection to the agricultural industry. Most likely, the user is from an urban centre, purchasing the carpet for a primary residence or a secondary residence in a more natural landscape. The residential user is a sophisticated and discerning shopper. They appreciate quality but will not sacrifice aesthetics. They have travelled extensively and have a favourable vision of Canada. They connect to the romance of the landscape and have some awareness of Canadian history or culture. They enjoy decorating with unique pieces that tell a story. Blockchain or traceability is a nice bonus for this product. Customer is able to identify the provenance of the fibre.
- Commercial/Institutional user: The commercial/institutional user is the bedrock of the luxury rug market. Installing rugs in offices, board rooms, presentation and reception spaces, retail, art galleries, hotels, spas, etc, adds a touch of luxury and elegance. These users usually spend work with substantial procurement budgets and rely more fully on designer expertise than residential users. Performance and longevity will be also be a consideration which gives wool an edge.

For the Canadian customer, the 100% pure Canadian wool rug is set to become an heirloom piece. The natural durability and easy maintenance of the rug will endure for future generations.

For customers outside Canada, the appeal centres not only on the high quality of the rug itself but also the possibility of owning something so distinctly Canadian.

Market reports indicate that Millennials and Y Generation customers are explicitly driving demand for wool products in the apparel and interiors sectors.¹

¹ <https://www.globenewswire.com/news-release/2021/09/22/2301305/28124/en/Global-Wool-Market-2021-to-2026-Growth-Trends-COVID-19-Impact-and-Forecasts.html>

MARKETING APPROACH

A successful marketing campaign could find inspiration in classic “Proudly Canadian” stories like arctic char², maple syrup,³ The Hudson’s Bay point blankets.⁴

Positioning the rugs as a Proudly Canadian Product from the outset allows all Canadians a certain pride of ownership. While the rugs may be produced and distributed by one business entity, their marketing component tells the story of all Canadians.

Canada has not produced a new heirloom product in over 100 years. The 100% pure Canadian rug offers an opportunity to include a more complete representation of a modern Canada and modern Canadian agriculture. Incorporating the indigenous voice, the New Canadian voice, the voice of diversified populations and a traceability component linking the product to the land would be on-trend.

Wool rugs per se are not a new thing, therefore a successful marketing plan must focus on differentiating an ordinary wool rug from a 100% pure Canadian wool rug.

- Differentiating Canadian wool from foreign wool in the same micron range.
- Telling the story of Canadian farmers and their high standards of practice.
- Showing how farming on the cold Canadian landscape yields a superior quality wool.
- Traceability from the sheep through the supply chain and into the final product.
- Making the image of the Canadian landscape accessible to foreign markets through compelling visuals.
- Inviting Canadian and global customers alike to own a piece of Canada.

In addition to the importance of telling the wool story, a successful marketing campaign will need to include strong branding and savvy use of technology for a good customer experience. The rug has to be beautiful, the branding needs to tell the story, technology keeps production and distribution efficient and a positive experience for the customer.

The distribution consortium will be responsible for the development and deployment of the marketing strategy.

KEY CONTROL CENTRES

Success of the business case hinges on four (4) key control centres:

1. Program buy-in from Canadian producers
 - a. Adopting management processes that limit vegetable matter contamination in wool.
 - b. Adopting processes to manage applied contamination.
 - c. Collaborating on supply chain needs as necessary (ex: marking wool bags in a specific format)
2. Close monitoring of shipping
 - a. Environmental impact
 - b. Costs⁵
 - c. Time delays

² <https://www.aquaculture.ca/canadian-farmed-arctic-char>

³ <https://ppaq.ca/en/our-organization/operation-and-regulations/collective-marketing-maple-syrup/>

⁴ <https://fashionmagazine.com/style/HUDSONS-BAY-POINT-BLANKETS/>

⁵ 40’ container from China port to North America port increased to nearly \$20,000 USD from only \$2,000 USD a year ago.

3. Re-imagining the traditional distribution model
 - a. Lean/agile operations
 - b. Social giveback standards to wool and agriculture industries
4. Developing a strategy to differentiate and market the unique properties of Canadian wool, sheep, landscape, culture to a global audience

TRACEABILITY

The 100% Canadian wool rug programme intends to offer total transparency of its supply chain to protect the safety of consumers, workers and anyone who believes that the world needs an ever-stronger sense of transparency and responsibility.

The manageable size of the Canadian wool industry along with traceability advancements in the lamb meat industry, make traceability of the wool rug realistic.

Early discussions with processors and manufacturers indicate that collaboration on a fibre traceability programme is a realistic and desirable objective.

There are many different wool traceability systems in place globally⁶. The 100% Canadian wool rug programme would take inspiration from other wool producing nations while collaborating wholeheartedly with Canada's meat traceability sector to provide even more robust tracking.

⁶ See the appendix for a list of traceability systems in use globally.

PART 5



TARGET EXPORT MARKETS

RETHINKING HOW CANADA EXPORTS WOOL

“Canada already exports raw greasy wool through a common brokerage system managed by Canadian Cooperative Wool Growers (CCWG). With some exceptions, CCWG sells wool to foreign interests, such as China, USA, Czech Republic, and Egypt; And to a lesser extent, Bulgaria, India and Uruguay.¹ Wool sold to these foreign markets typically falls into a pricing model set by the global commodities market. Other wool producing nations also transact in this global marketplace fostering a competitive environment for pricing.

Wool sold on the global market is evaluated and categorised according to its micron measure (μ).² Wool from Australia, for example, usually comes from the Merino breed of sheep which is known for producing a thinner diameter of wool. Merino wool is considered “fine wool” with a micron range between 11 μ and 25 μ . Because of its fineness, it is considered a “more valuable” wool and will fetch higher prices per kilo. Canadian wool from Canada’s meat-breed sheep clocks-in a little thicker, usually between 27 μ to 29 μ . Canadian wool is therefore referred to as “medium-coarse wool” or “broad wool”. In terms of pricing, medium-coarse wool will fetch a more modest price per kilo. The more modest the price, the lower the compensation for the wool producer.

In itself, a commodities market is a reliable and efficient environment in which to transact. Farmers have been using derivative trading on the commodities market for centuries to manage risk and volatility.³ It’s a natural choice for trading large quantities of product like sugar, spices, corn, coffee, and wheat.

With Canadian wool however, foreign sales of greased wool using global market pricing is no longer the best option. Canadian wool may score in a “medium-coarse” micron range but it is a much higher quality fibre than wool in a similar micron range from other countries. Evaluating Canadian wool solely on micron count is to devalue and ignore its special properties. Anecdotally, Canadian wool is softer because of the climate, the high standards of farming and animal care, and the relatively low stress environments in which Canadian sheep are raised.

Add to that, Canada has only a niche quantity of wool compared to other wool producing nations. Canada sits 36th on world wool production scale. The largest wool producing nations yield extremely high volumes of raw wool comparatively. For those nations, like Australia, New Zealand, using global markets to manage their wool clip is really their only option. It would be next to impossible to manufacture wool products domestically using the entirety of their nation’s wool clip.

Canada has a niche quantity of high quality wool suitable for a myriad of end-range products. After multiple pilot projects, The Campaign for Wool in Canada contends that premium pricing is necessary to incentivize farmers to conserve and sell their wool clip to Canadian interests. By extension, The Campaign for Wool in Canada recognizes that through its global trading partners and by association with the IWTO, Canada has an excellent opportunity to export Canadian made products using Canadian wool.

By seeking out supply chain stakeholders in Canada, and by uniting them with wool producers, the intent is to use THE CARPET PLAN as an inaugural product for “Brand Canada” export to selected countries. The benefits are numerous and support the overall work of The Campaign for Wool in Canada and The Canadian Wool Council, such as:

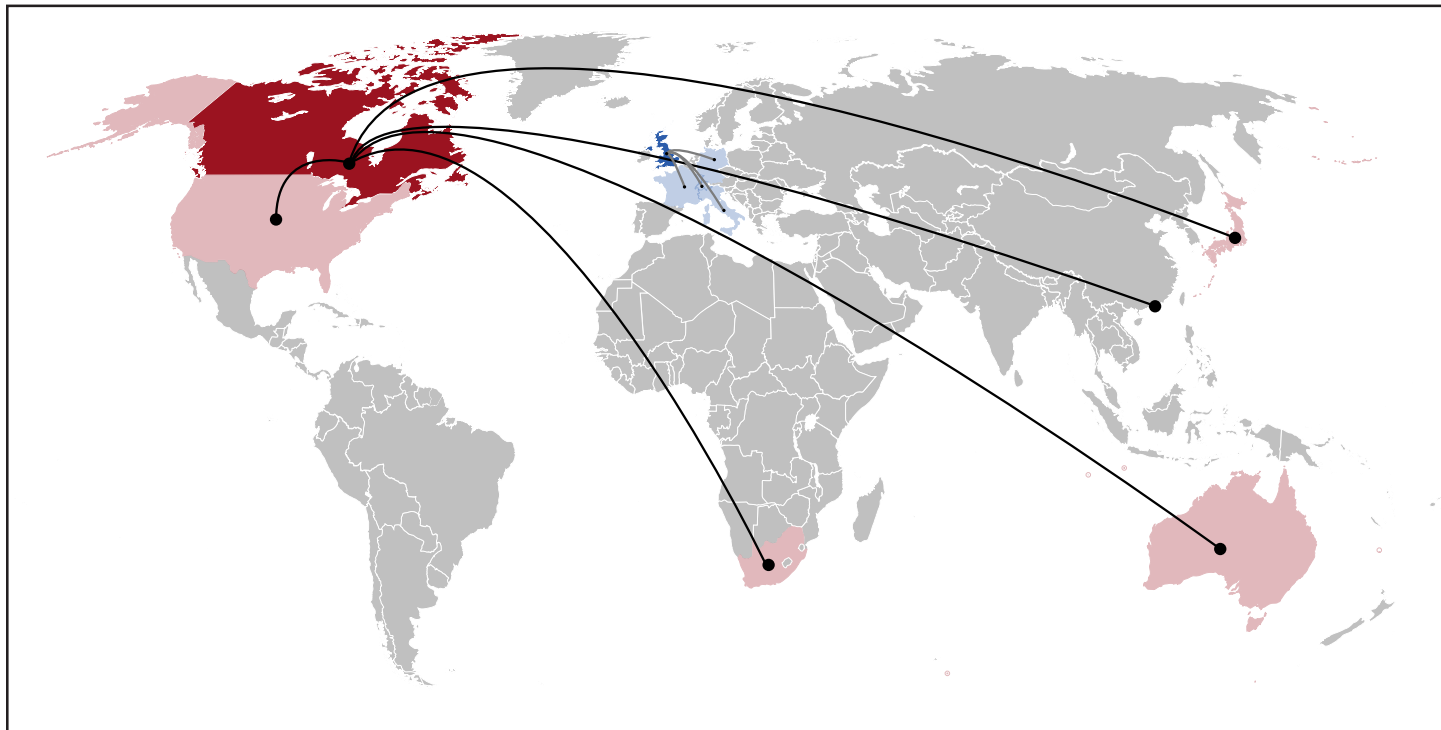
¹ <https://wool.ca/page/wool-market-reports>

² A micron is a unit of measurement in the metric system. It equals one-millionth of a metre and one-thousandth of a millimetre. It is a shorter word for micrometre. In the natural fibre industry, a micron is a measure of the thickness of an individual strand of fibre.

³ <https://www.nfa.futures.org/investors/investor-resources/files/opportunity-and-risk-entire.pdf>

- Premium pricing for producers
- Social giveback to the Canadian wool industry
- Incentivization for Canadian supply chain
- Covid-19 economic recovery opportunities
- Honouring customer preference for traceability
- Production of a climate beneficial product

FOREIGN MARKET INSIGHTS



Global map showing Canada as the hub for manufacturing and distribution to the North American, Asian, and southern hemisphere markets. Manufacturing and distribution hub in the UK serve the European market.

COVID-19 AND THE SHEEP AND WOOL SECTOR INSIGHTS

Covid-19 continues to have a major impact on wool production globally with supply chains slowing to a halt and world wool production falling to its lowest levels in fifty years. Despite the outlook for wool, the IWTO⁴ reports some stability on the horizon and production of broader wool used in interior textiles was steady.

In Canada, broader wool is associated with meat-breed sheep. Lamb and sheep meat prices are seeing an all-time high due to factors such as the African Swine Flu slowing demand for pork and limited access to beef due to slaughter house shutdowns because of the pandemic.

This means that consumers pivoted to ground lamb in the absence of ground beef and a pandemic trend that saw consumers ordering premium quality cuts of lamb from high-end restaurants that started offering gastronomic experiences in-home.⁵ Increased consumer demand is reflected in the increased number of sheep/lamb being processed and higher prices for meat. This gives Canadian farmers confidence to invest more in their sheep business.

With an increased number of sheep/lamb being processed, and steady lamb demand forecasted, Canada should expect an equally steady supply of medium wool. Anecdotally, there is an increased trend in farmers warehousing their wool until global wool prices rebound. While it is difficult to speculate on how much Canadian wool is warehoused on-farm, we can expect two years' worth of wool that was normally sold at

⁴ IWTO Market Information Edition 16, Review of 2020 and Outlook for 2021. Page 11

⁵ <https://farmtario.com/livestock/lamb-sees-increased-global-market-demand/>

commodities market pricing.

THE CARPET PLAN has confidence that an abundant quantity of greased wool could be funnelled into carpet manufacturing immediately.

WOOL CARPET INSIGHTS

Carpets and rugs of wool or fine hair are the world's 4137th most traded product. The following statistics identify where Canada sits in the context of wool carpet import/export. Also, data suggesting the level of activity of our target export countries.

In 2019, the top importers of wool or fine animal hair tufted carpets, rugs were:

- United States (\$25.9M)
- Germany (\$9.14M)
- Netherlands (\$4.86M)
- Canada (\$3.99M)
- Switzerland (\$3.54M)⁶

In 2019, the top exporters of wool or fine animal hair tufted carpets, rugs were:

- India (\$31.5M)
- Germany (\$10.7M)
- Sweden (\$6.05M)
- Nepal (\$6.01M)
- Austria (\$4.54M)

⁶ <https://oec.world/en/profile/hs92/carpets-of-wool-or-fine-hair-woven-made-up-nes>

TARGET MARKET IMPORT DATA

2019 Import Data per target country

Country	Trade Value in USD	Import Levies
Canada	\$3.99M	7.19%
United States	\$25.9M	2.2%
United Kingdom	\$2.81M	n/a
Australia	\$3.53M	1.76%
Switzerland	\$3.54M	2.89%
France	\$2.92M	2.89%
Italy	\$1.94M	2.89%
Germany	\$9.41M	2.89%
South Africa	\$871K	27.2%
Japan	\$954K	6.64%
Hong Kong	\$199K	0%
Netherlands	\$4.86M	2.89%

THE CARPET PLAN initially identified a set of target nations to export Canadian wool rugs. After careful review, it is deduced that countries with high levies and low import trade values should be avoided because Canada would have difficulty competing in this market while maintaining ambitious social giveback standards to the Canadian wool industry.

South Africa with a trade value of \$871K and a levy of 27.2% is a market to avoid in early stage business development. Likewise, and surprisingly, Japan has an import trade valued at \$954K with a 6.64% levy. Hong Kong has no levy but only a \$199K trade value. For the effort of labelling, packaging and shipping to South Africa, Japan and Hong Kong, Canada should avoid export to these nations.

Data suggests that THE CARPET PLAN should favour export to the US and Western Europe where quality wool rugs are in high demand and trade levies are fixed below 3%. Australia is another export market where Canada could see strong opportunities. All of these regions have favourable relationships with Canada.

THE CARPET PLAN also identified that Canada is currently a leader in wool rug imports. With an import levy of 7.19% for nations exporting to Canada, it seems like the Canadian wool carpet would have a hometown advantage in terms of price since there would be no levy on a domestically produced carpet.

OUTLOOK

The retail sales of furniture or soft furnishings (which includes carpets) also fell in 2020 in most of the major consuming countries, although these falls were generally not as great as they were for clothing. Sales of furnishings declined in Japan and China by 15.5% and 7.9% respectively. Retail sales of furnishings in the United Kingdom fell more modestly. The United States on the other hand increased retail sales in floor coverings by 7%.¹

Trade in Wool Tufted Floorcoverings² Units: tonnes (act. wt) 2019p Importing Countries

- United States of America 31,350 tonnes of wool carpet including backing
- United Kingdom 11,662 tonnes of wool carpet including backing
- Australia 11,507 tonnes of wool carpet including backing
- Germany 1,927 tonnes of wool carpet including backing
- Canada 1,888 tonnes of wool carpet including backing
- France 1,115 tonnes of wool carpet including backing
- Italy 543 tonnes of wool carpet including backing
- Netherlands 445 tonnes of wool carpet including backing
- Switzerland 337 tonnes of wool carpet including backing
- Other countries 5,499 tonnes of wool carpet including backing

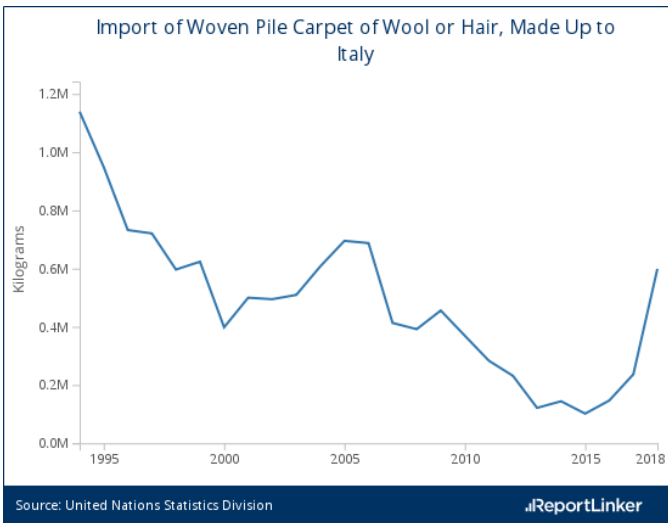
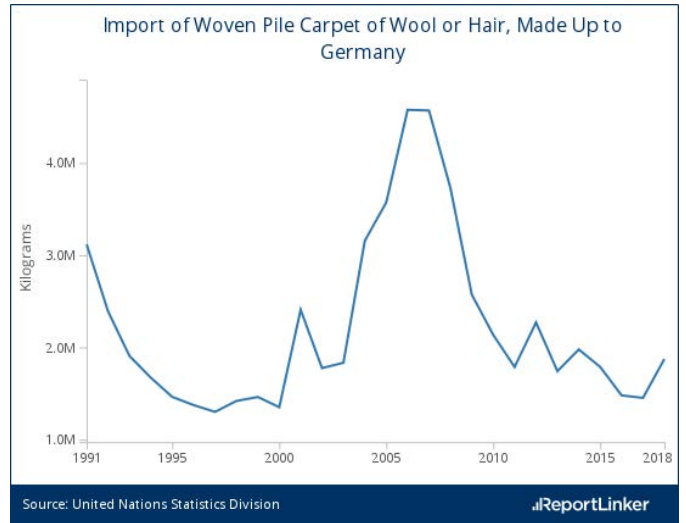
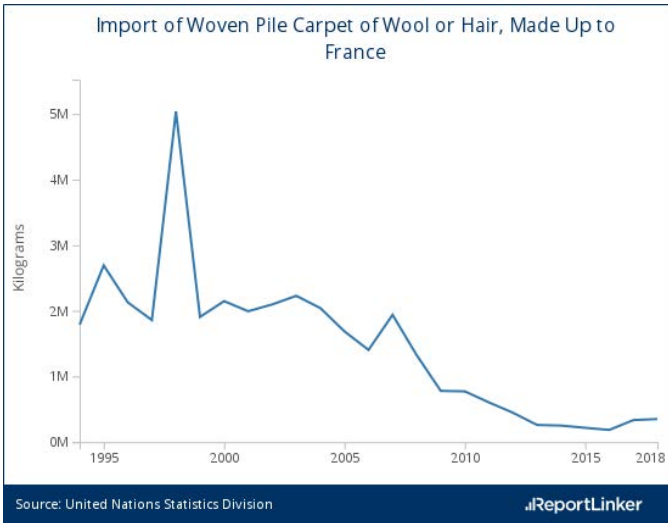
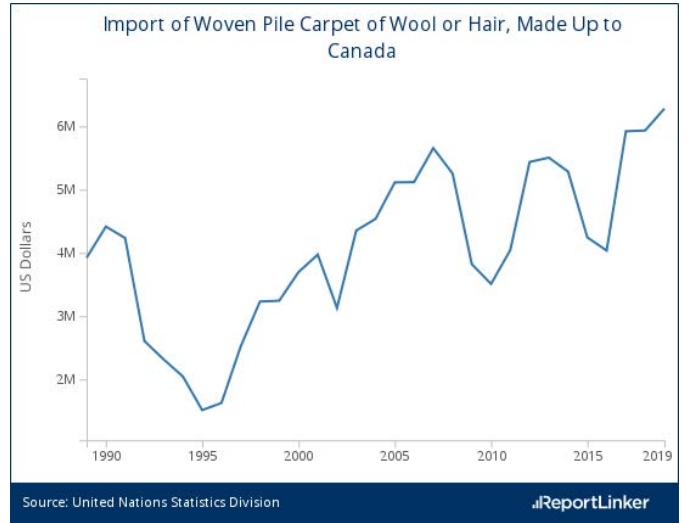
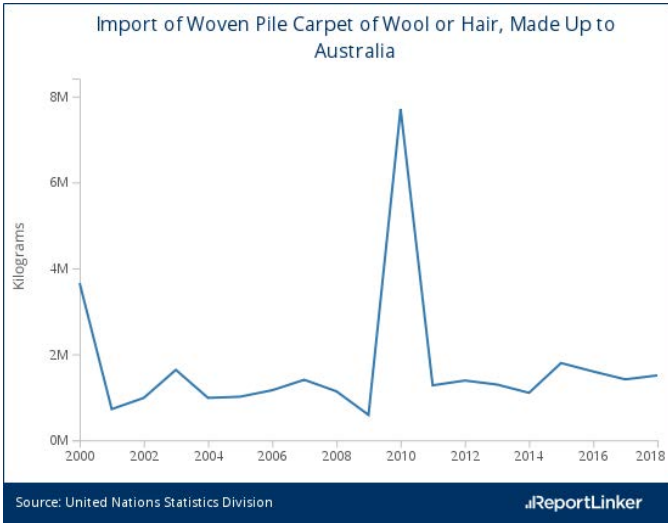
TOTAL WORLD 1 72,283 tonnes of wool carpet was moved globally in 2019.

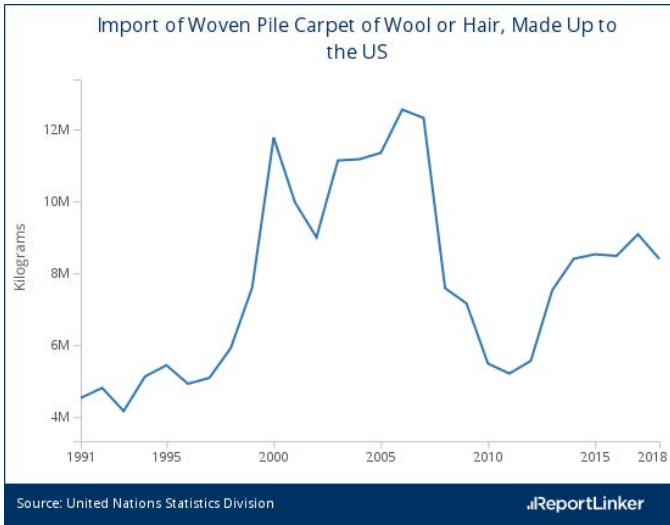
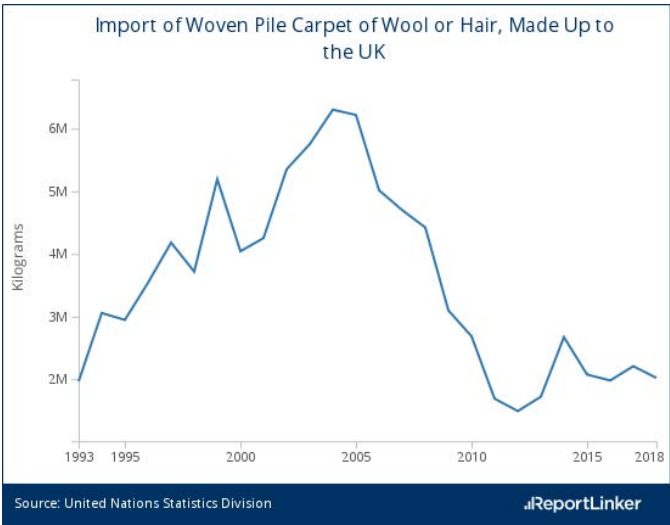
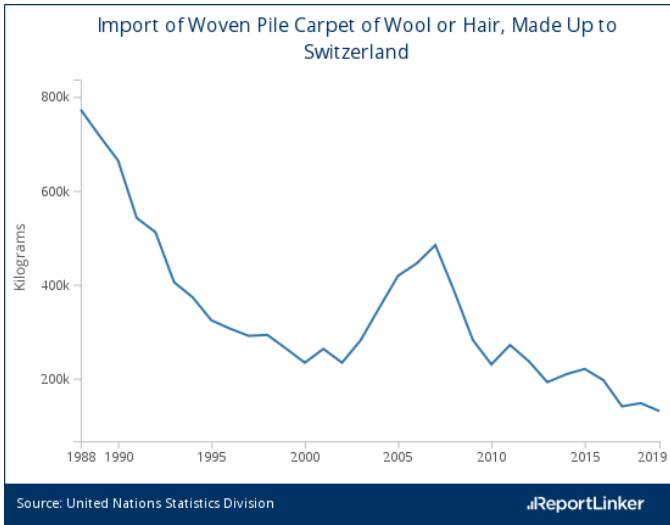
The Following graphs show the import trends of the nations targeted in THE CARPET PLAN.

Source: United Nations Statistics Division

¹ IWTO Market Information Edition 16, Review of 2020 and Outlook for 2021. Page 163

² Includes floorcoverings of woven carpets and rugs of pure wool and wool-rich pile. HS codes 570231, 570241, 570251, and 570291 Weight includes backing. Source: Foreign Trade Statistics, International Trade Centre (downloaded September 2020 to January 2021), Poimena Analysis, Delta Consultants & David Marland Consulting





DISTRIBUTION MODEL

THE CARPET PLAN evaluates multiple scenarios:

- Selling through independent distributors who act as the agent between the manufacturer and the retailer
- Selling through online distribution platforms like Wayfair
- Selling direct to customer through a dedicated product-specific website
- Selling to the design trade

The analysis showed that a reimagined distribution model would be necessary if Canada wants to uphold its development goals, which include:

- Creating an heirloom, “almost-bespoke” product worthy of the Brand Canada stamp.
- Maintaining an aspirational but not exaggerated price point.
- Control over branding and messaging around the product.
- Maintaining control over telling the Canadian farm story to the benefit of the producer.
- Offering a high level of customer support and after-care service that is synonymous with Canada.
- Paying premium pricing to the wool producer for the wool.
- Establishing a social giveback standard to the Canadian wool industry.

While no scenario is perfect, THE CARPET PLAN proposes forming a new distribution structure composed of Canadian carpet value-chain stakeholders and investors. The distribution structure would be a consortium of socially and financially invested entrepreneurs, each contributing their expertise. Stakeholders would form a lean but skilled team to manage global distribution to the design trade through a combination of online, virtual and in-person initiatives. The consortium could be composed of investors from all areas along the supply chain, including existing distributors in the wool carpet market.

The benefits to this model include:

1. Control over messaging and branding
2. Control over servicing
3. Skirting the traditional 30% margin in favour of a 15% : 15% model for the consortium and the wool industry in the form of social giveback and reinvestment.

TARGETING THE DESIGN TRADE OVER THE RETAILER

Having a distribution model that targets the design trade means there is an opportunity to have designers act as ambassadors to Canadian wool while avoiding the fixed retail mark-up price. Free know-how and advice on incorporating the 100% pure Canadian wool rug into their design projects. With superior service and support to the designer, a greater chance exists for repeat sales from the same designer. Incentives to the more active designers can be considered.

Additionally, the designer is the expert in any given project. If an expert is placing the carpet order, there's an improved chance that there will be greater end-user satisfaction with less hassle for the distribution consortium.

DRAWBACKS ON THE CONSORTIUM MODEL

The drawback of this model is there will be some learning curves for navigating foreign design markets and their regional trends. This is where the work of the Canadian Wool Council at the IWTO along with the partner nations of the global Campaign for Wool can add value in helping to convene and educate designers on the benefits of choosing Canadian wool. Provisionally, THE CARPET PLAN intends further research on the latest exclusive tradeshows to the design market in places like Japan, Hong Kong, Europe and the US. Also having a staffer who is charged with continuous networking in foreign markets to gain an insider's perspective.



APPENDIX

THE CANADIAN WOOL DOMESTIC & INTERNATIONAL AFFAIRS COMMITTEE

In December 2021, The Campaign for Wool in Canada and the Canadian Wool Council announced the formation of a committee to identify areas of support and investment in the Canadian wool industry. The Canadian Wool Domestic & International Affairs Committee was formed to include all value chain stakeholders. The committee members have accepted a two-year mandate which includes eight (8) general meetings over 2 years.

Actionable items emerging from the committee's eight (8) meetings will be voted on, and wherever appropriate, Working Groups will be formed to carry out the work. '

The Working Groups are not limited to committee members. Working Groups will be announced publicly, and the committee will welcome industry experts for their valuable input, feedback, and approval of any proposals.

The aim of the committee is to represent the entire wool value chain to the benefit of all Canadians who care about Canadian wool and Canadian sheep.

THE 2022-2024 COMMITTEE IS COMPRISED OF THE FOLLOW REPRESENTATIONS:

- Chair: Jane Underhill
- CFW/CWC Liaison: Matthew J. Rowe, CEO
- Eastern Canadian Farmer Representative: Kim Doherty-Smith
- Ontario Farmer Representative: Jacob Murray
- Western Farmer Representative: Ryan Greir
- Manufacturing (Apparel): Dr. Marie-Ève Faust Ph.D.
- Manufacturing (Interiors): Luke Fuendling
- Manufacturing (Early-Stage Processing): Franklin Snell
- Environment, Land and Animal Representative: Dr. Lisa Surber Ph.D.
- Government and Legislation Representative: Jennifer MacTavish
- Communications and Outreach Representative: Kelly Daynard
- Finance and Sponsorship Representative: Rick Blickstead
- Parliamentarian Liaison: Vania Cecchin

One of the first action items of the committee is to draft The Canadian Wool Policy and along with it, The Canadian Wool Standard. These are documents already in use in many wool producing nations. They are working policies that help all stakeholders along the value chain express their wool needs, possibilities, and limitations.

The Canadian Wool Standard will be created by farmers for farmers with input from the various manufacturing sectors. The intention is to create a set of wool care standards that will enable wool producers to fetch the highest prices for their fleece, here and abroad, regardless of market conditions.

Initiatives such as these should not be viewed as an imposition or an obligation to Canadian farmers. Rather it is the work of the Campaign for Wool in Canada to gather insights and information from other stakeholders in Canada and abroad, on the possibilities of Canadian wool, and then form an arena to help Canadian wool producers thrive from their wool clip. The intention is to arm the sheep producer with all the tools necessary to profit from their wool. Afterwards, it will be to the producers' discretion whether to adopt the suggestions in the Wool Policy to their farm business practices.

SUPPLY CHAIN ADVISORY LIST

Scourers

Name	Country	Location	Website
Bainton's Old Mill	CAN	Blythe, ON	theoldmill.ca
Haworth's Scouring Co.	UK	Bradford, UK	haworthscouring.co.uk
Zeilinger Wool Co.	USA	Michigan, USA	zwool.com
Chargeurs Wool USA	USA	South Carolina, USA	chargeurs-luxury.com
TFM (Tops Fray Marcos SA)	URU	Uruguay	tops.com.uy

Spinners

Name	Country	Location	Website
Elitespun (Amtex)	CAN	Mississauga	elitespun.com
Lemieux	CAN	Beauce QC	lemieuxspinning.com
Danspin	DEN	Denmark, Lithuania	danspin.com
Lawton Yarn	UK	Bradford	lawtonyarns.com
Meridian Specialty Yarns	US	Gastonia, Georgia	msyg.com
Superdye (Dyeing only)	BEL	Mouscron	superdye.be
Pharr Yarns	USA	McAddenville, NC	pharrusa.com
Briggs and Little	CAN	Harvey, NB	briggsandlittle.com
SpinRite	CAN	Listowel, ON	yarnfactoryoutlet.com

Tufters

Name	Country	Location	Website
Cabernet Carpets	CAN	Waterloo	cabernetcarpets.ca
TFM (Tops Fray Marcos SA)	URU	Uruguay	tops.com.uy
Carter Carpets	US	Rome, Georgia	cartercarpets.com
Cavalier Carpets	UK	Blackburn, UK	cavaliercarpets.co.uk

Distributors

Company	Country	Location	Website
Nature's Carpets	CAN, US	Vancouver, BC	colin-campbell.ca
Lusotufo	PORT	Seia, Portugal	lusotufo.pt
Creative Matters	CAN	Toronto, CAN	creativemattersinc.com
Cavalier Carpets	UK	Blackburn, UK	cavaliercarpets.co.uk

Advisors

Name	Country	Location
Martin Curtis	Leeds, UK	Curtis Sheep
Amaury De Laforcade	South Carolina, USA	NSC - USA
Darrin Kostka	Toronto, CAN	North49 Interiors
Laurie Bray	Georgia, USA	The Wool Collective
Roberto Cardelino	Uruguay	Delta Sheep Consultants
Bridgette Kelly	Leeds, UK	Independent Business Advisor
Eugenio Barnet-Cortina	Georgia, USA	Carter Custom Carpets Inc.
Carol Sebert	Toronto, CAN	Creative Matters Inc.

References

Carpet America Recovery Effort	carpetrecovery.org
Endless Knot Rugs	endlessknotrugs.com
Best Wool Carpets	bestwoolcarpets.com
British Wool	britishwool.org.uk
The Spruce	thespruce.com

WOOL TRACEABILITY SYSTEMS 2021

Source: IWTO - International Wool & Textile Organisation

Abelusi Wool



Segard Masurel, with its direct link with wool growers, helps brands source sustainable and mules-free wool. Through Abelusi, long-term partnerships from farm to retail are forged with brands, providing full traceability and transparency and ensuring that progressive environmental and sustainable practices can be built into their own wool supply chain

Website	Country	Contact	Method	Email
www.abelusiwool.com	South Africa	Erwin Woolward	Abelusi Wool	wool@abelusiwool.com
www.segardmasurel.com	France	Vincent Nicolas		wool@smwb.co.za

Authentico



Authentico was first launched in 1999. It is built on existing standards, best industry practices and legislations honoured by wool growers. The system has the highest animal welfare and environmental requirements. The wool is fully traceable to farm level, as it is processed in company owned mills, to GOTS and RWS certification.

Website	Country	Contact	Method	Email
https://www.gschneider.com/authentico/	Switzerland	Willy Gallia	3rd Party Certification	willy.gallia@gschneider.com

AWH



AWH offers the electronic identification capability of greasy wool from all major Australian Ports. The digitalization of the physical bale handling process has the potential to create significant advantages for the wool industry by allowing more detailed information to be passed electronically through the pipeline, reducing the need for manual entry whilst delivering operation efficiencies. Further opportunities for the electronic identification technology include traceability back to origin of the physical wool, the capability to electronically locate and identify wool within a warehouse and the ability for a mill to electronically mark blend codes (or other data) on greasy wool prior to scouring.

Website	Country	Contact	Method	Email
www.awh.com.au	Australia	David Mitchell	AWH RFID/ QR Electronic identification of greasy wool	davidmitchell@awh.com.au

Bahariye Mensucat San Tic A.S



We offer traceability through RWS certification. Bahariye has been producing woollen fabric in Istanbul since 1951.

Website	Country	Contact	Method	Email
www.bahariye.com.tr	Turkey	Dogan Filiz	RWS	doganfiliz@bahariye.com.tr

British Wool Licensing



British Wool's Licensee's scheme focuses on the traceability of the wool all the way through the supply chain (manufacturers, spinners, top makers, merchants) and is designed to provide better visibility of the British wool content by product range.

Website	Country	Contact	Method	Email
www.britishwool.org.uk	United Kingdom	Haldi Kranich-Wood	British Wool's Licensing Scheme	haldikw@britishwool.org.uk

Cape Wools SA



The Sustainable Cape Wool Standard (SCWS) was developed by Cape Wools SA (CWSA) in order to address all aspects of sustainable wool production in South Africa, namely animal welfare, environmental sustainability, social responsibility and economic principles. On-farm assessments are conducted and recorded electronically on an integrated traceability platform. Traceability is provided to the shipment of the greasy wool, allowing role-players to continue with the traceable supply chain.

Website	Country	Contact	Method	Email
www.capewools.co.za	South Africa	Deon Saayman	Sustainable Cape Wool Standard	deon@capewools.co.za

Engraw Export and Import co.Sa



Origen by Engraw certification combines high quality with passion and caring for the fibre, environment and animal welfare. Our growers harvest their wool under the Green tag shearing audited by The Uruguayan Wool Secretariat (SUL) and following the Guidelines of the Ethical Sheep Production. The wool is processed using renewable energy provided by two windmills and also under Carbon Neutral certification. Origen Certification offers the full story, traceability from farm to top. The story from the origin.

Website	Country	Contact	Method	Email
www.engraw.com.uy	Uruguay	Federico Raquet	Origen by Engraw	federico@engraw.com.uy

Escorial



An internationally registered quality product brand, underpinned by continual ownership from selection of a historically respected natural fibre through to Escorial branded finished piece at retail, in collaboration with selected manufacturers and luxury retail brand partners that share similar philosophies around animal, human and our planet's health and welfare.

Website	Country	Contact	Method	Email
www.escorialgroup.com	New Zealand	Peter Radford	The Escorial Warranty	peter.radford@escorialgroup.com

Estethia G.B. Conte, part of the Marzotto Group since 2008, is a combination of two different stories: woven and jersey fabrics forged together to form a worldwide recognised fashion brand for women and men.

Website	Country	Contact	Method	Email
www.estethiagbconte.it	Italy	Marta Federica Maniero	Autentico, IWTO Test Certificate, GOTS, RWS and GRS	marta_maniero@marzottowool.it

Fratelli Tallia di Delfino



Tallia di Delfino's desire is to maintain 100% of its production in Italy, in the same place where it all began over a century ago. Respect for its origins and environment goes hand in hand with the continued growth of the brand, through an ever-wider network of partners sharing, promoting and resonating its philosophy globally.

Website	Country	Contact	Method	Email
www.tallia-delfino.com	Italy	Ludovico Zegna	Autentico + ZQ + IWTO Test Certificate + GOTS + RWS + GRS	giorgio marcarino @tallia-delfino.com

Guabello/1815



Since 1815, our link with our territory is inseparable. This place has given birth to infinite stories of knowledge and passion, handed down over the centuries. We have chosen to guarantee total transparency of our supply chain to protect the safety of consumers, workers and anyone who believes that the world needs an ever-stronger sense of transparency and responsibility.

Website	Country	Contact	Method	Email
www.guabello.it	Italy	LUDOVICO ZEGNA	Authentico, IWTO Test Certificate, GOTS, RWS and GRS	umberto_quaglia@guabello.it

Indorama Holdings Ltd.



Producing fine quality wool yarns for the weaving and knitting sector since 1994, with sustainability and traceability integrated in our business model.

Website	Country	Contact	Method	Email
www.indoramaventures.com	Thailand	Rajesh Banka	RWS + GOTS + GRS + Non-Mulesing Certificates	banka@indorama.net

IWTO Test Certificates



The IWTO Specifications and Regulations offer the global industry a set of standards to trade wool on. Once wool has been tested to these standards, a wool certificate or test report will be issued. The document is a summary of the wool weight, specifications and measurements, as well as its origin.

Website	Country	Contact	Method	Email
www.iwto.org	Global	Dalena White	Wool Testing Laboratories	info@iwto.org

Know your stuff



“Know your stuff” offers an easy-to-use traceability system that enables to access the full journey of the clothes by the simple scan of a QR code. From garment making down to the fibre sourcing stage, detailed information about the production process is provided at point of sale.

Website	Country	Contact	Method	Email
www.knowyourstuff.de	Germany	Verena Keller	Partner Platform	verena@knowyourstuff.de

Lanas Trinidad S.A



Lanas Trinidad

LANAS TRINIDAD is a traditional wool company, founded in 1916 and based in Uruguay. It is the main producer of scoured wool and combed wool tops in Uruguay exporting worldwide to customers who demand the highest quality. We strive to take care of this superb natural and organic fibre, from our green grasslands throughout the supply chain. Lanas Trinidad is not only committed to animal welfare and responsible land management, but also proper working conditions for its labour force, good stewardship of the environment and generation of energy with renewable resources from its wastewater treatment process. Future generations should inherit a healthier environment.

Website	Country	Contact	Method	Email
www.lanastrinidad.com	Uruguay	Pedro Otegui	RWS + NATIVA + Organic GOTS + ISO 9001-2015	potegui@chargeurs-wool.com

Marlane

Marlane has always chosen a selection of refined Merino wool, naturally biodegradable and renewable resource. This is a highly sustainable choice to protect the environment. In this way, Marlane is committed to respecting nature in all its work, certifying its products and choosing raw materials certified by Authentico.

Website	Country	Contact	Method	Email
www.marlanecommunication.com	Italy	Ludovico Zegna	Authentico + ZQ + IWTO Test Certificates + GOTS + RWS + GRS	patrick_lonn@marlane.it

Marzotto promotes and supports corporate growth together with sustainability, throughout the supply chain of our yarns and fabrics. We should always remember that the future of the next generation depends on our current choices.

Website	Country	Contact	Method	Email
www.marzottotessuti.it	Italy	Paolo Vazzoler	Authentico + IWTO Test Certificates + GOTS + RWS + GRS	paolo_vazzoler@marzotto.it

National Wool Declaration



The National Wool Declaration is an Australian industry initiative which enables woolgrowers to declare and promote their animal welfare practices (i.e. mulesing status) and the dark and medullated fibre risk of their wool to exporters, processors and retailers. Introduced in 2008, the NWD is recognized globally for its transparency and traceability. The NWD is backed by a comprehensive integrity program including desktop audits and onfarm inspections for mulesing status with a single purpose: to build wool pipeline and consumer confidence in Australian wool. Through its extensive database, the NWD-IP also provides Mulesing Status Certificates to the buyers and users of Australian wool. The NWD-IP is certified to ISO9001:2015, and operated by AWEX, an independent, not-for-profit wool integrity systems company.

Website	Country	Contact	Method	Email
www.awex.com.au	Australia	Dr Kerry Hansford	NWD ISO9001:2015	khansford@awex.com.au

NATIVA™



With heritage and experience in wool sourcing and combing, Chargeurs Luxury Materials introduces NATIVA™, a global solution of traceability, Blockchain-backed transparency, and sustainability, for supply chain partners and brands. This traceability is guaranteed by farm-to-brand certifications via the NATIVA™ protocol, including high standards on animal welfare, environmental management, and CSR.

Website	Country	Contact	Method	Email
www.nativa-preciousfiber.com	Italy	Martin Donagaray	NATIVA	mtonagaray@chargeurs-luxury.com

NewMerino is an independent 3rd party supply management system for retail brands. It provides supply planning, reporting and Transaction Certificates at key processing stages providing full transparency and complete traceability from farm to yarn. Farmers are required to meet documented animal welfare and land management standards published on our web site.

Website	Country	Contact	Method	Email
www.newmerino.com.au	Australia	Peter Vandeleur	NewMerino	peter.vandeleur@newmerino.com.au

Opera Piemontese



Opera Piemontese, the youngest division of the Group, shares the fundamental values that have always been the basis of the Marzotto world. It's therefore essential to work in a sustainable way, with a careful selection of raw materials, for the creation of fine fabrics for women's fashion, increasingly attentive to environmental issues.

Website	Country	Contact	Method	Email
	Italy	Ludovico Zegna	Authentico + ZQ + IWTO Test Certificates + GOTS + RWS + GRS	marco_schiavone@opera.piemontese.it

Pack-Tainers Pty Ltd



Pack-Tainers is a Wool Dump/Packing facility for export. Located in Victoria & NSW and receiving wool from throughout Australia. Our complete traceability system allows Pack-Tainers to identify particular wool bales, the exact location and it's journey from warehouse to the wharf, ready for export.

Website	Country	Contact	Method	Email
www.pack-tainers.com.au	Australia	Mark Wilson	Wool Bale traceability system	pakm@pack-tainers.com.au

The Suedwolle group can offer globally a wide range of wool yarn made of different traceability systems based on certified global standards and supply chain models.

Website	Country	Contact	Method	Email
www.suedwollegroup.com	Germany	Ronald Gerbeth	GOTS, IVN BEST, RWS, Nativa™, Authentico, ZQ Merino, KYS	gerbeth@suedwollegroup.de

SustainaWOOL



SustainaWOOL is a comprehensive on-farm certification scheme for growers and wool buyers who celebrate the highest standards in animal health and welfare, environmental management, social responsibility, wool quality and clip preparation, and traceability. Established in 2015 and with over 950 Australian growers now participating, SustainaWOOL builds on the AWEX NWD Integrity Program and offers traceability from farm to retail through our Supply Chain Partners. SustainaWOOL is certified to ISO9001:2015, and operated by AWEX, an independent, not-for-profit wool integrity systems company.

Website	Country	Contact	Method	Email
www.sustainawool.com.au	Australia	Dr Paul Swan	SustainaWOOL ISO9001:2015	pswan@awex.com.au

ZQ is an on-farm certification programme developed by The New Zealand Merino Company that requires growers to meet strict standards regarding animal welfare, environmental integrity, social responsibility, fibre quality and traceability. Textile Exchange and The New Zealand Merino Company have worked together to create a combined audit process and checklist that simultaneously addresses both RWS and ZQ requirements. ZQ^{RX} challenges our wool growers to go beyond sustainability by deeply understanding the complex interactions between their livestock, soils, climate, ecology, and community. We work with them to apply strategies to continually improve their performance against key indicators. For growers, ZQ^{RX} is a journey of improvement, accurate measurements, and shared wisdom.

Website	Country	Contact	Method	Email
www.discoverzq.com	New Zealand (Global)	Tim Loftus	ZQ + ZQ ^{RX}	tim.loftus@nzmerino.co.nz

WoolClip



WoolClip© is a web and mobile App cloud based platform that enables on-farm data (e.g. property, mob and bale) to be entered, curated, viewed, and delivered to nominated downstream recipients such as carriers, warehouses, marketing organisations, in the form of Delivery Consignments, National Wool Declarations, and Specifications. WoolClip is e-bale ready, with active trials underway of capturing unique electronic bale identification on farm.

Website	Country	Contact	Method	Email
www.woolclip.com.au	Australia	Mr David Cother	WoolClip, Wool Classer Code of Practice, GS3, NWD, WIEDPUG	dcother@awex.com.au

Wool Integrity NZ



PGG Wrightons Wool Integrity Programme was established in 2014. The in-house export company Bloch & Behrens Wool (NZ) Ltd is responsible for the supply of "Wool Integrity" wool as well as being certified to supply GOTS and RWS Standard wool.

Website	Country	Contact	Method	Email
www.woolintegrity.com	New Zealand	Jason Everson	Integrity Programme	jason.everson@pggwrightson.co.nz

Wright Wool



As a strict policy, Wright Wool supports best practice and traceability to all operations that interact with animals, complying with all relevant national legislation, codes of practice and best industry practices.

Website	Country	Contact	Method	Email
www.wrightwool.co.nz	New Zealand	Philippa Wright	Integrity Programme	philippa@wrightwool.co.nz

Zegna Baruffa Lane Borgosesia S.P.A.



Zegna Baruffa Lane Borgosesia produces precious wool yarn, including fancy natural fibres and noble blends for knitwear and weaving. The Company has been operating in Italy for almost 170 years and it has always stated, as a priority, the commitment towards territory and people, throughout the production process.

Website	Country	Contact	Method	Email
www.baruffa.com	Italy	Gianmarco Salussolia	TF-Traceability & Fashion, RWS - Responsible Wool Standard	baruffa@baruffa.com

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Dog Spinners
The Annual



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