

**patagonia**<sup>®</sup>

# Patagonia Wool Standard (PWS)

*For Animal Welfare, Land Management and Traceability*

**2016**

# I. Introduction

Patagonia sources wool for the incredible warmth it brings to our products. While the wool we use is shorn from sheep during their lifetime, these same sheep are primarily raised as a source of meat for the food industry. While Patagonia does not directly contribute to the slaughter of these sheep, brands like us who are using wool in their products nevertheless have an impact on animal welfare, the environment and the communities in their wool supply chain.

To help ensure the welfare of the animals involved, improve and maintain healthy land ecosystems, and ensure traceability of our wool from farm to final product, we have created the Patagonia Wool Standard (PWS), which establishes clear requirements and a robust methodology for sourcing wool. Our PWS was driven by our company's values, local and international regulations, best practice standards, and input from consumers and NGO.

Patagonia believes the best way to ensure quality and an ethical wool supply chain is to partner directly with the farmers from whom we source wool. While the requirements in the PWS are new to some suppliers, and may be different from centuries old traditional wool ranching practices, we are committed to working closely with our partners who demonstrate full transparency and commitment to continuous improvement. Through these partnerships, we can improve the welfare of the animals, the health of the land, and provide consumers with the most transparent wool supply chain in the industry.

This document outlines the PWS, including scope, structure and our approach to monitoring our wool supply chain. It also highlights where the PWS goes above and beyond existing wool industry animal welfare standards.

The PWS will be revised as new animal welfare, land management, traceability legislation and best practices emerge.

# II. Scope & Standard Development

The PWS covers supplier requirements at the farm level for land management, traceability (chain of custody) and sheep animal welfare.

## Animal Welfare

*Scope and Standard Development:* The animal welfare requirements within the PWS outline specific international best practices to help ensure the humane treatment of sheep. All independent third-party verification and certification audits must be completed to these same principles, scope and methodology. We used the [Responsible Wool Standard](#) (RWS) as the basis and framework for the PWS; however, we have added several “Patagonia Plus” requirements that are primarily based on the International Finance Corporation’s “Good Practice Note on Improving Animal Welfare in Livestock Operations” and the “Five Freedoms.” We also reviewed the following existing animal welfare standards for sheep (full reference list of standards we consulted are listed at the end of this document):

- a. The International Wool Textile Organization
- b. International Finance Corporation’s “Good Practice Note on Improving Animal Welfare in Livestock Operations”
- c. Humane Animal Farm Care Guidance
- d. UK NGO Coalition on sheep welfare
- e. Royal Society for the Protection and Care of Animals Guidelines
- f. American Veterinary Medicine Association Guidelines for the Euthanasia of Animals
- g. Canadian Sheep Federation and National Farm Animal Care Council
- h. Alberta Government - Agriculture and Forestry, Canada
- i. Australian Animal Welfare Standards and Guidelines for Sheep
- j. New Zealand National Animal Welfare Advisory Committee

*Stakeholder Review Process:* We also sought feedback from Dr. Temple Grandin, Four Paws International, United States and New Zealand farmers, animal welfare experts from NSF’s Integra Inspection Services, and other well respected international animal welfare NGOs. All areas of the standard were piloted in partnership with Textile Exchange, NSF and Integra at two farms in the United States during shearing and lambing periods. All of the learnings and stakeholder feedback were then incorporated into the animal welfare section of the PWS.

The animal welfare section covers:

1. Nutrition
2. Environment (of the animal - housing, fences, thermal conditions, etc.)
3. Handling
4. Shearing
5. Health
6. Animal husbandry
7. Slaughter
8. Transportation

*“Patagonia Plus” Animal Welfare Details:* Specific features that make the PWS unique and help ensure animal welfare above and beyond other standards are as follows:

- Includes 34 additional requirements above the RWS (also see table below):
  - Additional new requirements-22 total criteria-covering transportation and slaughter
  - Partially modified requirements-12 total criteria
  - Includes 21 zero tolerance practices that can result in orders being withdrawn from a supplier

- Includes 15 critical tolerance practices that require immediate remediation and re-audit
- Includes extra requirements that address training and education for farm staff
- Mandatory audits during shearing once every other year
- Mandatory audits during lambing once every other year
- Subject to unannounced audits if zero tolerances or critical tolerances are found
- All potential new farms will undergo the full PWS pre-sourcing approval process before orders are placed. The pre-sourcing approval process will be based on either of the following two audit scenarios: (1) RWS certification and Patagonia Plus audits or (2) PWS full third party audit. (see section III titled Supplier demonstration of compliance)
- Suppliers are required to comply with all applicable legal requirements. The strictest standard, either legal or within this standard applies

- On-site assessments are conducted by vetted animal welfare experts
- Suppliers are provided with best practice recommendations in a number of areas

*Note Regarding Off-Farm Slaughter and Transportation:* The sheep providing the wool that Patagonia buys are primarily raised to be a source of meat. While our purchase of wool does not result in the slaughter of sheep, we feel it is our responsibility to include requirements within the PWS that go beyond our direct relationship with the farms. Our suppliers are expected to ensure that the transportation of live sheep from their farm to the next stage in the meat supply chain (be it to slaughterhouses or other farms to prepare them for slaughter) complies with the animal welfare standards in the below section titled "Transportation." Moreover, we also expect our suppliers to ensure that slaughterhouses where sheep are processed for meat are compliant with humane slaughter practices identified in the below section titled "Slaughter." Compliance with these sections is required to become a Patagonia wool supplier.

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## Land Management

The land management portion of the PWS was adopted in its entirety from the [RWS](#). The goal of the land management portion of this standard is to address potential environmental impacts that may result from raising and grazing sheep in a particular region. It includes best land management practices for sheep farms and is intended to be a methodology that measures land and biodiversity health across different regions. Patagonia's environmental experts, other likeminded brands and leading land conservation organizations contributed their expertise to create this standard. There are four main land management components to our standard (and the RWS). Each of the four main land management components include specific criteria to ensure that the environment in the region is being properly monitored, managed and protected. They include:

- a. Soil: Ensure farmers have an understanding of what will impact the health of their soil and have a strategy to mitigate damage and improve soil health.
  - Develop a written management plan that prevents overgrazing
  - Monitor and manage soil compaction, soil erosion, soil organic matter and overall land health
  - Properly manage disposal of hazardous materials
- b. Biodiversity: Ensure farmers have an understanding of what will impact the biodiversity of their land and have a strategy to protect and improve it over time.
  - Monitor and manage high conservation value areas, forage resources, unwanted exotic or invasive plants
  - Monitor predator populations and wildlife
  - Lethal control of predators should be minimized and if necessary, done humanely

- Prohibition of deforestation
- Prohibition of hunting, fishing or gathering of rare, threatened or endangered species
- c. Fertilizers: Ensure farmers use the minimum amount of inputs to meet the nutritional needs of their land to maintain their carrying capacity.
  - Develop a written fertilizer management strategy
  - Test and record soil nutrient levels
  - Use appropriate fertilizers and ensure application methods and equipment minimize waste and pollution
- d. Pesticide Use: Ensure farmers use the minimum amount of pesticides to achieve adequate control of pest burden on their farm.
  - Develop an integrated pest management plan (IPM)
  - Monitor crop and pasture for parasites
- Avoid pesticide use when possible and when used, apply the minimum amount
  - Use appropriate pesticides and ensure application methods and equipment minimize waste and pollution
  - Maintain records of pesticides that have been used

The current focus of the land management portion of the standard is on the practices of the farmer. The standard is designed to evaluate their understanding of the issues, their commitment to improve, and ultimately measure the effectiveness of their actions. Suppliers are also required to follow all applicable legal requirements. Patagonia is currently researching best practices in regenerative farming and is committed to enhancing the land management portion of the standard in future versions, including possibly adding our own “Patagonia Plus” standards on top of the RWS land management requirements.

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## Traceability

Traceability, or “chain of custody,” of wool is important to help ensure the wool from the farms complying with the PWS ends up in our final product sold to our customers. As with land management, Patagonia has adopted all existing traceability requirements in the [RWS](#). The RWS utilizes the standards of Textile Exchange’s [Content Claim Standard](#) certification to ensure chain of custody from farm to the finished garment. We require our supply chain, from top maker/scourer through to finished goods maker, to meet the criteria of this standard, whether by being certified to the standard or by undergoing a Patagonia internal verification audit, which are similar to the Content Claim Standard audit protocol.

Principle areas covered are:

- Management systems
- Input storage segregation
- Inventory management
- Chain of custody throughout production
- Volume reconciliation
- Labeling & packaging

# III. Supplier Demonstration of Compliance:

For animal welfare, land management and traceability, our wool suppliers are expected to meet all of the criteria listed in our standard before any order will be placed with them. They may demonstrate compliance in two ways: 1) Suppliers may show compliance by successfully undergoing certification to the Textile Exchange's Responsible Wool Standard (RWS), as well as by undergoing a third party audit for the elements of the "Patagonia Plus" standards for animal welfare included in the PWS; 2) Alternately, suppliers may undergo a full third party PWS verification assessment.

Suppliers must comply with local legal requirements for animal welfare and land management as well as the PWS. The highest requirement-whether local law or the PWS-applies for each of the sections in the standard.

Patagonia strictly requires that all pre-sourcing and ongoing on-site audits at wool farms must be conducted during the shearing period (when the wool is sheared and classed) and the lambing period (when birth, tail docking and castration occur). This further helps ensure that the auditors observe whether the farmer is using the best animal welfare practices and any remediation, and that pertinent employees can be interviewed regarding the different practices.

After initial approval, subsequent audits must take place during the lambing period and the shearing period, on alternating years. This applies to all suppliers, whether or not they are seeking certification to the RWS as part of their demonstration of compliance or not.

Patagonia reserves the right to request additional site visits as necessary, with or without a third party.

# IV. Glossary/Definitions

For a glossary/definitions, please refer to the Textile Exchange's [Responsible Wool Standard](#).

# V. Patagonia Wool Standard (PWS)

## Land Management Requirements

The land management portion of the Patagonia Wool Standard was adopted in its entirety from the [Responsible Wool Standard](#) (RWS), and all elements can be found within the RWS. Patagonia is currently researching best practices in regenerative farming, and we are committed to enhancing the land management portion of the standard in future versions.

## Traceability Requirements

As with land management, Patagonia has adopted all existing traceability requirements in the [Responsible Wool Standard](#) (RWS). The RWS utilizes the Textile Exchange's [Content Claim Standard](#) certification to ensure chain of custody from farm to the finished garment. We require our supply chain, from top maker/scourer through to finished goods maker, to meet the criteria of this standard, whether by being certified to the standard or by undergoing a Patagonia traceability internal verification audit, which are similar to the Content Claim Standard audit protocol.

## Animal Welfare Requirements

Patagonia has adopted the Textile Exchange's [Responsible Wool Standard](#) (RWS) as the basis of our Patagonia Wool Standard. "Patagonia Plus" requirements that go above and beyond the industry standard are indicated in the column to the far right.

### Standard Structure:

- The column titled "Requirement" outlines the principles which suppliers must meet for each of the standard sections.
- The column titled "Detailed Benchmark Standard" provides further information on the particular practices that suppliers must meet to be in compliance with the principles outlined for each topic or issue.
- The column titled "Guidance" lays out detailed information on how to comply with the benchmark standard. This column is intended to help both the auditee and the auditor accurately interpret the section.
- Under the Benchmark column we have identified issues that are:
  - *Zero Tolerance* concerns (ZT) which are practices that make a supplier ineligible for potential approval by Patagonia.
  - *Critical Tolerance* concerns (CT) which are practices that require immediate action on the part of suppliers to remediate.
- Where indicated, *scorecards* for lameness, body condition, dirty bums and shearing, as well as other tools developed to properly assess the welfare of the animal, are shared with auditing bodies and farmers.
- "BP" indicates "Best Practice".

SECTION	Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement	
1	NUTRITION	Livestock must have access to fresh water and a diet designed to maintain full health and promote a positive state of well-being. Feed and water must be distributed in such a way that livestock can eat and drink without undue competition.			
1.1	General	<p><b>Sheep have access to clean, fresh water and are provided with an adequate supply of wholesome, nutritious feed appropriate to their age and needs, and sufficient to maintain good health.</b></p>	<p>There is a feeding plan in place. Feed provided to sheep is palatable, meets nutritional needs and is of adequate supply and quality to maintain body condition appropriate to age and needs.</p>	<p>A feeding plan is available, with information on:</p> <ul style="list-style-type: none"> <li>- feed composition</li> <li>- grazing access</li> <li>- special dietary needs</li> <li>- additional mineral preparations and compound feeds appropriate for their age and geographical region</li> <li>- strategy for shy feeders</li> <li>- food storage requirements</li> </ul> <p>Owner/manager has written records on:</p> <ul style="list-style-type: none"> <li>- feed constituents</li> <li>- inclusion rate</li> <li>- constituents of compound feeds and feed supplements</li> </ul>	
1.1.1	Storage		<p>Feed is stored properly and protected from exposure to hazardous materials, sunlight and contamination by animals.</p>	<p>Purchased feeds, whole grains, by-product feeds, forages, straws, shavings, supplements and milk replacers are protected from exposure to moisture, sunlight and contamination by animals.</p> <p>The farmer shall have a bill of sale or other certificate of verification from their feed supplier, ensuring that feed does not contain prohibited animal by-products.</p> <p>Food bins are properly labeled in accordance with legal regulations and covered to protect/reduce contamination from vermin and other animals.</p> <p>There are no hazardous materials stored near feed storage areas.</p> <p>Farm equipment that may come in contact with feed shall be properly maintained and cleaned, or be stored in the feed storage areas to prevent contamination of the feed.</p>	
1.1.2	Trough feeding		<p>When fed at troughs, all sheep have sufficient space to feed, including shy feeders.</p>	<p>Trough space is adequate to minimize aggression caused by competition for feed and ensure that within 24 hours, all sheep have sufficient access to food provided and meet nutritional requirements.</p> <p>Troughs are kept clean and stale food removed.</p> <p>Shy feeders are identified and monitored, especially during the introduction of sheep to novel fodder.</p>	Partial Patagonia Plus
1.1.3	Restrictions		<p>Sheep are only deprived of feed and water for reasonable management practices (such as shearing). (Refer to transportation sections for specific requirements).</p> <p><b>ZT: Sheep are deprived of water for more than 12 hours total.</b></p> <p><b>CT: Sheep are deprived of food for more than 24 hours total.</b></p>	<p>Sheep are taken off feed and water 6 to 12 hours prior to shearing, with the last sheep deprived for no longer than 24 hours total.</p> <p>Sheep are monitored for signs of distress during time held off feed and water.</p> <p>Sheep in ill health or poor condition will not be deprived of food or water until they recover.</p>	
1.1.4	Dietary changes		<p>Changes in diet are introduced gradually to prevent digestive problems. Sudden changes in type and quantity of food are avoided.</p>	<p>Pastures shall be monitored for changes in herbage, grasses and weeds after weather events.</p> <p>Sheep are introduced to crop grazing and/or supplementary feeding over an appropriate period.</p> <p>Any supplements or mineral mixtures are specifically designed and appropriate to the animal to avoid causing problems.</p>	Partial Patagonia Plus



SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
1.2	<b>Poisonous or prohibited content</b>	<b>Measures are in place to minimize access to poisonous plants, contaminated feed and harmful substances.</b>	Feed must not contain any prohibited or unsuitable materials including: <ul style="list-style-type: none"> <li>- mammalian or avian-derived protein sources (except for milk and milk products)</li> <li>- antibiotics (unless used in treatment of animals)</li> <li>- feeding meat</li> <li>- growth hormones</li> <li>- prohibited animal by-products (as verified by feed supplier)</li> </ul> Measures shall be in place to be sure that no pesticides can leak into water points or contaminate feed.	Farm equipment is cleaned and properly maintained to prevent cross-contamination of feed.	Partial Patagonia Plus
1.3	<b>Water</b>	<b>Sheep have continuous access to an adequate supply of clean, safe drinking water each day.</b>	Water points supplied from troughs, drinkers or natural water sources are clean, of good quality and at an accessible level at all times.	Water quality meets local regulations.	
1.4	<b>Food and water availability</b>	<b>Routine checks and monitoring are conducted regularly to ensure feed and water quality and quantity are maintained.</b>	Equipment used to deliver feed and water is cleaned and maintained in good working order and any problems promptly rectified.	Any problems with feed or water are addressed immediately.	
1.4.1	Pasture/ resource management		Pasture grazing and water from natural sources are routinely monitored as a management practice.	Stocking rates are measured based on land type, pasture quality and seasonal conditions.  Stocking rates are strictly recorded and followed to plan pasture, feeding rations and water resource availability.  The amount of feed on offer is measured to calculate the number of available grazing days.	
1.4.2	Body condition		The body condition of sheep is routinely monitored as part of the farm's management system to confirm health of the sheep.  <b>ZT: BCS of 2 or less in 10% of sheep is observed.</b>	For the first year of participation, farmers must create a system for recording body condition scores (BCS) in sheep (refer to BCS system). This system must be followed during the subsequent years, and statistics must be available during on-site audits. Monitoring must take place at least twice a year and may be done via sampling.  Year 1: Farm workers are adequately trained to measure the BCS of sheep.  Year 2 and beyond: At least 80% of adult sheep have a BCS of between 3 and 4. (Allowance to be made for pregnancy and lactation).  If average BCS falls below 2, appropriate action is taken to return the animal to good health and the feeding program is adjusted accordingly.  BP: A nutritionist or veterinarian is consulted.  <b>Use body condition visual scorecard.</b>	
1.5	<b>Emergency planning</b>	<b>Measures are taken to ensure adequate feed and water are made available to sheep during emergencies, such as in severe weather conditions.</b>	An emergency plan is in place to have water, fodder and other nutritional supplements available to sheep, or to relocate animals to an area where such provisions are available, giving priority for shelter to the most vulnerable.	If sufficient feed cannot be provided to sheep, either in period of poor seasonal conditions or severe weather events, animals are relocated or sold before their welfare is put at risk.  BP: Nutritionist or veterinarian is consulted.  <b>Use body condition visual scorecard.</b>	Partial Patagonia Plus

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
1.5.1	Extreme weather		<p>During periods of extreme/adverse weather, sheep are monitored closely for signs of cold or heat stress, with a plan in place to provide immediate action in the following circumstances:</p> <ul style="list-style-type: none"> <li>- manage flock to minimize the risk of hypothermia or heat stress</li> <li>- relocate sheep to a sheltered area or shed in adverse conditions</li> <li>- provide feed and/or water in cases of cold or heat stress</li> <li>- provide extra bedding where appropriate</li> <li>- manage timing of shearing events to minimize risk of hypothermia (if bad weather is predicted, make alternate arrangements such as delaying shearing or increasing available shelter)</li> <li>- sheep shall be removed from potential flooding areas at times of risk</li> </ul>	<p>In farms with housing systems, supplemental heating should be provided for very young animals when temperature becomes low enough to cause cold stress.</p> <p>As far as is practical, sheep should be prevented from gathering in places where they may be buried in snow.</p>	
<b>2</b>	<b>ENVIRONMENT</b>	<b>The environment in which livestock are kept must take into account their welfare needs and be designed to protect them from physical and thermal discomfort, fear and distress, and allow them to perform their natural behaviors.</b>			
2.1	<b>Outdoor pasture/ grazing</b>	<b>Continuous outdoor pasture access is required during the grazing season for all animals.</b>	<p>Farming systems where sheep are confined all year are not allowed.</p> <p>During the grass growing season, climatic conditions allowing, all sheep receive the majority of their nutrient requirements from grazing at pasture.</p> <p>Animals have access to pasture areas that are well drained and clean.</p>	The amount of outdoor area is such that the health and welfare of the animals is maintained.	
2.2	<b>Shelter</b>	<b>All sheep have access to effective shade, shelter and/or windbreaks, to protect them from adverse weather conditions.</b>	Shelter can be natural or artificial as long as it is available when needed and provides effective protection against prevailing conditions.	Access to shade or shelter reduces the risk to health and welfare caused by exposure to cold or heat.	
2.2.1	Conditions		When sheep are kept outdoors, there is an accessible area that is grassed or straw covered, well drained and dry, and of sufficient size for all sheep to lie down there so as to limit the buildup of mud or dung on the fleece.	When animals are kept on externally owned and operated feedlots, the farmer must share the Patagonia wool animal welfare standards with them and highlight the critical section regarding animal welfare that applies to these locations.	
2.3	<b>Fences</b>	<b>All fencing is adequately inspected and shall be regularly maintained.</b>	<p>Electric fences must be designed, installed, used and maintained so contact results in no more than momentary discomfort.</p> <p>When any type of mesh fencing is used, in particular for horned sheep and around lambing fields, it shall be inspected frequently.</p> <p>Fence inspection shall be carried out daily in the case of lambing fields.</p> <p>Fences shall be of a sufficient height to discourage sheep from trying to jump over them.</p> <p>Fences shall be of a sufficient strength to withstand the side forces applied by sheep in the yards.</p> <p><b>ZT: Electric mesh fencing is prohibited for use with horned sheep.</b></p>		
2.4	<b>Sheep inspection</b>	<b>Inspection of sheep is as frequent as necessary to minimize risks to welfare.</b>	Welfare concerns observed during an inspection are dealt with appropriately and without delay.	<p>Frequency of inspections should increase during periods of high risk:</p> <ul style="list-style-type: none"> <li>- fly strike danger</li> <li>- adverse weather conditions</li> <li>- pre and post lambing</li> <li>- predation</li> <li>- introduction of new sheep</li> <li>- when sheep have access to a potentially hazardous environment</li> </ul> <p>Observations and actions taken are recorded.</p>	Patagonia Plus

SECTION	Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement	
2.5	<b>Predators</b>	<b>Farmers are aware of predation risks in their area and take measures to prevent sheep from being harmed or killed by predators.</b>	A written wild animal/pest control plan is in place.	Farmers have good knowledge of the wildlife presence in the area. Wild animal/pest control plan includes physical exclusion methods and the removal of elements around the sheep that might encourage the presence of wild animals. The primary strategy shall be to minimize the potential for conflict between sheep and wildlife. See Predator Reference guide (RWS Farmer Guidebook).	
2.5.1	Predator/pest control	Best practice techniques are applied for all methods used, with the aim to minimize suffering and distress. Non-lethal methods are considered before lethal. When permitted by local law, the usage of compound 1080 must be phased out over a three-year period. Impact on non-target species (e.g. target specificity) should be considered in all cases.	BP: Owners/managers use AAWS model to assess the relative humaneness of pest control measures. Results in a score based on time to insensibility and level of intensity of suffering.	Patagonia Plus	
2.5.2	Pesticides	When using pesticides on pastures, the withholding periods must be respected.	All pesticides (herbicides, insecticides and fungicides) will have a withholding period indication; this is the amount of time before it is safe for animals to be on the land where the pesticide has been applied.		
<b>2.6</b>	<b>Housing facilities</b>	<b>Housing is designed, constructed and maintained so as to minimize stress and the likelihood of injury.</b>	Facilities should be structurally sound and free from protrusions and obstacles that may cause injury.	Facility construction or modification should take into account: - sheep behavior - topography (location and drainage) - flood and fire risk - climate - purpose/length of confinement - space - feed and water space requirements - shade/shelter - surface materials - cleaning and waste disposal Measures shall be in place to be sure that no pesticides can leak into water points or contaminate feed. In the case of a fire, procedures must exist to move sheep from the barn to a secondary holding location.	Partial Patagonia Plus
<b>2.7</b>	<b>Social groupings</b>	<b>Isolation of individual sheep is minimized.</b>	When sheep are confined for extended periods, they are kept in stable social groupings and able to turn around, see, hear, smell and touch neighboring sheep.	Exception to contact with neighboring sheep may be made for quarantine purposes. Where isolation cannot be avoided, the confined sheep is provided with a companion or able to maintain visual contact with other sheep. Social groupings are managed to allow positive social behavior and to minimize injury, distress and fear. Special care shall be taken when introducing rams to a new group; sheep shall be monitored for signs of aggression.	

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
2.8	Space	<b>All sheep have sufficient space to stand, stretch, turn around, sit and/or lie down comfortably at the same time.</b>	<p>Housed sheep have pens that provide sufficient freedom of movement and floor space to lie in a normal resting posture.</p> <p>Space provided is not less than 1.5 times their minimum lying area.</p> <p><b><u>CT: Housing is overcrowded, limiting the number of sheep that can lie down.</u></b></p>	<p>Stocking densities are low enough to prevent excessive temperatures and humidity; competition, stress, aggression between animals and abnormal behavior; and to enable good litter management.</p> <p>Space allowance takes into account the age, size and class of sheep and environment.</p> <p>The lying area shall be of sufficient size to accommodate all sheep together lying in normal resting posture.</p> <p>Lambing pens for individual ewes shall have at least 25ft<sup>2</sup> (2.3m<sup>2</sup>) of floor space, and be bedded with straw or other substrate that provides comfort and warmth.</p> <p>Exception from the above shall apply only in limited circumstances, such as:</p> <ul style="list-style-type: none"> <li>- examinations, tests or vet treatments</li> <li>- while being fed, marketed, washed, weighed, vaccinated or dipped</li> <li>- while accommodation is being cleaned</li> <li>- while waiting for transportation</li> </ul> <p>For all buildings and feeding operations, key points relating to welfare are recorded, including:</p> <ul style="list-style-type: none"> <li>- total floor area</li> <li>- building volume available to sheep</li> <li>- number of sheep in relation to age, weight, and feeding, drinking and bedding space</li> </ul>	
2.8.1	Tethering		<p>Long-term close confinement in crates or tethering is unacceptable.</p> <p>Tethered animals are monitored and cared for, with inspections occurring at least twice every 24-hour period (or three times in very hot weather).</p> <p><b><u>CT: Sheep are restrained through close confinement or tethering for more than 24 hour periods.</u></b></p>	<p>Tethering (or use of crates) must only be used for a short time to address a special need (e.g. medical care). More humane methods such as confinement within a secure yard or fenced paddock are considered instead of tethering.</p> <p>Checks should verify:</p> <ul style="list-style-type: none"> <li>- sheep have not become entangled</li> <li>- tether is still fitted properly at the head or neck</li> <li>- clean, fresh, potable water is available in troughs or heavy containers fixed on the perimeter of the tether</li> <li>- food is available during the ewe/lamb bonding period when ewes are yoked</li> </ul> <p>Sheep tethered outside receive supplementary feeding where grazing is not adequate and are protected from climatic extremes and predators.</p>	Partial Patagonia Plus
2.9	Flooring	<b>All surfaces and flooring are non-slip, without sharp projections or edges likely to cause injury.</b>	<p>Infrastructure is inspected and maintained regularly, and is free of sharp protrusions, faults and flaws that could cause injury.</p>		
2.9.1	Bedding		<p>Housed sheep have access to a dry bedding area sufficient to avoid discomfort.</p>	<p>Sheep must not be housed on solid concrete floors without providing adequate bedding.</p> <p>Bedding is provided in all buildings used for rearing sheep, with the exception of systems using slotted floors.</p> <p>Bedding must be clean and dry. Bedding from timber-based products sourced from chemically treated wood is prohibited.</p>	

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
2.10	Ventilation	<b>Housing is well ventilated and kept in a sanitary condition.</b>	Buildings are effectively ventilated so as to avoid high humidity, condensation, draughts or the buildup of harmful concentration of gases such as ammonia and carbon dioxide.  Flooring is free draining to prevent the accumulation of feces and urine likely to compromise their welfare.  All applicable equipment and services, including water bowls and troughs, ventilating fans, heating and lighting units, fire extinguishers and alarm systems, shall be inspected and cleaned regularly and kept in good working order. A log shall be kept of inspections.	Manure is removed from housing or shelters at least once a month.  Indoor housing systems with controlled or forced ventilation that rely on automatic equipment should be inspected daily, or have a back-up system to warn of mechanical failure.	Partial Patagonia Plus
2.10.1	Thermal conditions		Measures are taken to ensure that the thermal environment does not significantly affect production or cause distress.	The environment must not be so hot or so cold as to cause distress. In summer, sheep must be protected from heat stress through adequate access to shade. In winter, shorn sheep must be protected from draughts and cold stress.	
2.10.2	Air quality		Measures are taken to ensure that air quality is monitored and maintained at levels that do not affect production or cause respiratory distress.  Inhalable dust must not exceed 10mg/m <sup>3</sup> at animal height.  Ammonia levels must not exceed 20ppm.	Aerial contaminants do not reach a level at which they are noticeably unpleasant to a human observer. Quality is maintained by minimizing transmission of airborne infectious agents, preventing the buildup of noxious or harmful gases, and minimizing dust particles.	
2.11	Lighting	<b>When housed indoors, sufficient lighting is available for sheep to see their surroundings, food and water sources clearly.</b>	When sheep are housed indoors, adequate lighting, whether fixed or portable, shall be available to enable them to be thoroughly inspected at any time.  Housed sheep shall have access to a lit area for the normal period of daylight hours.  Animals shall not be subjected to dim and/or continuous lighting, except in limited periods such as during lambing season.		
2.12	Inspection	<b>When sheep are housed, stockpeople inspect livestock and equipment at least daily, or more regularly as needed.</b>	Sheep grazing extensively should be inspected at least once a week, preferably two to three times weekly.	Housed sheep have continuing conscientious attention by staff well-trained in their nutritional and environmental needs.  Any welfare problems or abnormal observations are identified during the inspection and recorded, and actions are taken.	Partial Patagonia Plus
2.12.1	Equipment		All applicable equipment and services, including water bowls and troughs, ventilating fans, heating and lighting units, fire extinguishers and alarm systems, are inspected and cleaned regularly and kept in good working order.  A log shall be kept of inspections.	Where a defect is found in the automatic equipment: a) the defect must be rectified immediately or b) if this is impracticable, alternative measures are taken to safeguard the sheep from suffering unnecessary pain or distress as a result of the defect	
3	<b>HANDLING AND MANAGEMENT</b>	<b>A high degree of caring and responsible management is vital to ensure good animal welfare.</b>			
3.1	Owners/ managers	<b>A high degree of caring and responsible management is in place on the farm and is being actively promoted by owners and managers.</b>	Owners/managers are thoroughly trained, skilled and competent in animal husbandry and welfare, and have a good working knowledge of their system and the livestock under their care.	Management plans developed and used in farms should include: - emergency action plan/contingency planning - animal health/welfare plan - records of treatments and medications used - transportation plan - emergency euthanasia plan - biosecurity plan	Patagonia Plus

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
3.2	Employee training	<b>Owners/managers promote compassionate care and handling of sheep, and ensure that all employees working with sheep are trained on basic measures of animal welfare and have the relevant and necessary skills to perform their duties.</b>	Owners/managers have developed and implemented suitable training programs for stockpersons, shearers and other employees handling sheep.	<p>For the first year of participation, farmers must work towards creating a system and materials for training employees in compassionate care. This system must be followed during the subsequent years.</p> <p>Where contracted employees are used, there is an agreement between the owner/manager and the contractor on training requirements related to animal welfare and compassionate handling and care.</p> <p>Training for all staff handling sheep should include:</p> <ul style="list-style-type: none"> <li>- compassionate handling</li> <li>- animal welfare measures</li> <li>- identification of illness or injury</li> <li>- scoring indices for BCS, lameness, dirty bum and shearing</li> </ul> <p><b>Use dirty bum, body condition and lameness evaluation system.</b></p>	Patagonia Plus
3.2.1	Stockpeople		<p>Stockpeople are trained and/or experienced and competent in the compassionate care and handling of animals, possess and practice the ability, knowledge and competence necessary to maintain the health and welfare of the animals.</p> <p>Stockpeople shall be trained in land management for sheep production.</p>	<p>Training shall include all elements of the management plan.</p> <p>Training records shall be maintained. Workers shall have access to the RWS and the Patagonia Wool Standard, and be made aware of the relevant requirements.</p> <p>Stockpeople are thoroughly trained, skilled and competent in:</p> <ul style="list-style-type: none"> <li>- compassionate care and handling techniques</li> <li>- fostering of positive human-sheep interactions to promote animal welfare</li> <li>- performing humane animal husbandry procedures, including humane slaughter and euthanasia</li> <li>- recognizing early signs of injury or disease using body condition and lameness scoring</li> <li>- foot care diagnosis and treatment</li> <li>- providing prompt remedial action and treatment where required</li> <li>- lambing and care of newborn lambs</li> </ul> <p><b>Use body condition and lameness assessment system.</b></p>	Patagonia Plus
3.3	Handling facilities	<b>Handling facilities are suitable for the routine handling and management of the flock.</b>	<p>Handling systems are designed, constructed and maintained so as to minimize stress and the likelihood of injury.</p> <p>Facilities are well maintained and free from obstacles that may cause injury.</p>	<p>Infrastructure is free of sharp protrusions, faults and flaws that could cause injury.</p> <p>Flooring in holding pens has good traction.</p> <p>Infrastructure is inspected and maintained regularly.</p> <p>Good hygiene is practiced in relation to facilities, hands, handling and instruments.</p> <p>BP: Owner/manager conducts regular inspections of the facilities. Checklists and maintenance records available on site.</p>	

SECTION	Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
3.4	<b>Handling practices</b> <b>Handling and movement of sheep is calm and effective at all times, with care taken to avoid unnecessary harm, pain and distress.</b>	Mistreatment and/or abuse of any animals on the farm is unacceptable. After handling, sheep are returned to feed and water as soon as possible. <b>ZT: Sheep are mistreated and/or abused.</b> <b>ZT: Number of animals falling during handling must not exceed 1%.</b>	Mistreatment includes rough physical contact such as: - kicking, striking - slamming gates on the sheep - tripping, throwing or dropping animals - dragging or pulling sheep by the fleece, tail, ears, head or neck Manual handling or restraining of sheep shall be performed with one hand/arm under the neck and other placed on or around the rear. In an open area, a crook may be used to catch a sheep by the neck or leg. Continuous confinement of any animal on the farm is prohibited. Animals must receive nutrition, care, handling and veterinary attention as required for their health, safety and comfort. For the first year of participation, farmers must work towards creating a system and materials for training employees in handling best practices (including risk evaluation for falling during handling, shearing, etc.). This system must be followed during the subsequent years. Evidence of mistreatment includes bruising (visible when shorn), injuries like cuts and broken limbs and horns, as well as behavioral signs of distress and fear. Should bruising be noted at the slaughterhouse, the farmer must conduct a root cause assessment and implement a remediation plan to avoid this in the future. Handling or moving sheep by poking sensitive areas, such as the eyes, rectum, nose or genitals, is prohibited.	Partial Patagonia Plus
3.4.1	Extra care and special conditions	During extreme weather, handling of sheep is minimized, with special care provisions in place for vulnerable animals.	Heavily pregnant ewes should only be handled when absolutely necessary, and with care to avoid distress or injury. Extra care is taken when handling sheep with special needs, such as young lambs, heavily pregnant ewes, lame sheep and rams. <b>Use lameness indicator system.</b>	
3.4.2	Restraining	Sheep are restrained humanely. Rough handling during restraint is prohibited. <b>ZT: Sheep are being rough handled while under restraint.</b>		
3.4.3	Mustering, yarding, catching	Sheep are driven in a calm manner at a relaxed pace, natural to that animal and not faster than the pace of the slowest animal. Contingency plans shall be in place to move by vehicle any animal that becomes exhausted, lame or otherwise unable to keep up with the flock. <b>CT: Sheep are forced to move too quickly and at a pace that causes exhaustion, heat stress or injury.</b>	Under hot conditions, sheep are allowed to rest frequently and are provided with sufficient suitable fresh water. Under favorable conditions, sheep should not be driven in excess of 10km without allowing one hour rest and access to fresh water. No sick, injured, disabled or heavily gravid animals should be moved on the hoof.	

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement	
3.5	Handling aids: Dogs	<b>Stockperson has good command of dogs and is in control when working sheep.</b>	Dogs are well trained to handle sheep and responsive to commands. Stockperson is present with dog when working sheep.	A dog that habitually bites sheep should be muzzled while working sheep.  Dogs are not allowed to force the sheep to move too quickly nor to continue to force the sheep when they have nowhere to go.		
3.5.1	Mustering aids: Other		Electric prodders are not permitted. <b>ZT: Electric prodders are used.</b>			
<b>4</b>		<b>SHEARING</b>				
<b>Shearing must be carried out in ways that minimize animal injury and suffering.</b>						
4.1	General	<b>Sheep that grow and retain long wool are shorn at least annually.</b>	There is a shearing plan in place designed to mitigate potential negative animal health outcomes.	Shearing plan should include: - timing of shearing - training requirements for shearers - inspection requirements for facilities and equipment maintenance, including hand held shearing devices	Partial Patagonia Plus	
4.1.1	Timing		Sheep are shorn with care under conditions that minimize stress and risk of injury.  Shearing is timed to minimize risk of illness/injury or disease from exposure to extreme weather and adverse conditions.	When planning shearing, owners/managers must take the following into consideration: - time of year and seasonal weather conditions - local insect season (e.g. risk of fly strike, other pests) - available shelter - measures to mitigate negative outcomes associated with shearing (e.g. hypothermia, sunburn, biting insects, health problems)  Sheep must have access to adequate shade, shelter, feed and water post shearing.	Partial Patagonia Plus	
4.1.2	Facilities and equipment		Shearing facilities are clean, well-lit and of sufficient size to allow for the safe handling and shearing of sheep.  Shearing equipment is well maintained and disinfected between flocks.	Shearing equipment must be well maintained and inspected daily to ensure it is: - properly sharpened - operating in accordance with electrical codes and properly grounded to prevent shocking sheep - disinfected between flocks	Partial Patagonia Plus	
4.2	Shearer training	<b>Shearing is performed by, or under the direct supervision of, a competent shearer using techniques designed to minimize animal stress and injury.</b>	<b>CT: Shearers are not specifically incentivized to avoid animal injury. Shearer contracts only specify piece rate payment.</b>	Contracts with shearers must include wording that specifies that payment for shearing services is not based on piece rate alone. Shearing evaluation must include levels of quality, injury avoidance and efficiency.  Farmers must have a system in place to record performance of individual shearers or of the shearing team as a whole, which may then support any continuous improvement needed.  Whichever incentive system is used to ensure animal welfare, it must be recorded in the shearer contract.  <b>Use a shearing scorecard.</b>	Patagonia Plus	



SECTION	Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement	
4.3	Injuries	<p>All shearing related injuries must be avoided as much as possible, and when they occur, attended to promptly and according to the flock health and welfare plan.</p>	<p>An action plan is instituted to address and prevent any reoccurring problems with injuries or mishandling.</p> <p><b>C.T.: The presence of injuries does not prompt the use of a remediation system.</b></p> <p><b>Injuries that prompt this system include:</b></p> <ul style="list-style-type: none"> <li>- multiple small cuts to skin</li> <li>- long skin cuts</li> <li>- cuts to teats or genitals</li> <li>- deep flesh or muscle cuts</li> <li>- broken limbs/evidence of other abuse</li> </ul>	<p>For the first year of participation, farmers must design a system to collect data on the number and severity of cuts that occur during shearing. This system must be followed during the subsequent years.</p> <p>In the event of an injury, the shearer will cease shearing immediately to attend to the injury. When available, anesthetics and/or analgesics must be used when animals are treated.</p> <p>Treatment supplies are on hand.</p> <p>Injured sheep are handled with care.</p> <p>Records of injuries are kept.</p> <p>BP: Owners/managers develop a shearing scoring guideline, with posters displayed in shearing shed about proper sheep handling and holding during shearing, as well as information about scoring system.</p> <p><b>Use shearing scorecard.</b></p>	Partial Patagonia Plus
5	HEALTH	Treatment for sick, injured or diseased sheep is undertaken at the first reasonable opportunity to alleviate any unreasonable or unnecessary pain or distress.			
5.1	General	Each farm has a written management plan in place for flock health and animal welfare.	<p>The plan is reviewed annually in consultation with a veterinarian.</p>	<p>The Flock Health and Welfare Plan should include:</p> <ul style="list-style-type: none"> <li>- a schedule for flock inspection</li> <li>- disease prevention, management and treatment plan (incl. vaccination schedule)</li> <li>- risk benefit analysis of painful husbandry procedures</li> <li>- a pain control strategy</li> <li>- breeding management</li> <li>- mortality records, including causes of mortality when known</li> <li>- tolerance limits of mortality, and plans for action if mortality limits are exceeded</li> <li>- biosecurity provisions</li> <li>- emergency procedures and contingency plans for disasters</li> <li>- proper disposal of carcasses, waste drums, silage wraps and needles</li> </ul>	
5.1.1.	Breeding/selection		Genetic improvement towards disease resistance and resilience is part of the breeding program.		
5.2	Inspection	Owner/managers conduct routine health inspections and monitoring for signs of disease or production disorders.	<p>Managers and stockpersons monitor sheep for signs of disease, infection, parasites, lameness and other production disorders.</p>	<p>Farmers must collect data on signs of disease, infection, parasites, lameness, production disorders and mortality. Monitoring will include the following:</p> <ul style="list-style-type: none"> <li>- monitoring for signs of disease, infection, parasites, lameness and production disorders</li> <li>- mortality records shall be kept; if mortality rates fall outside expected levels, actions shall be taken and the problem resolved</li> <li>- unexpected deaths and disease outbreaks shall be investigated, and remedial and preventive actions shall be taken</li> <li>- records of inspections, results and actions taken shall be kept</li> <li>- when sheep are housed, stock keepers shall inspect their livestock and equipment daily</li> </ul> <p>If health and mortality parameters fall outside management plan, actions are taken and the problem resolved.</p> <p>Unexpected deaths and disease outbreaks are investigated and remedial and preventive actions taken.</p> <p><b>Use lameness indicator scorecard.</b></p>	

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
5.2.1	Controlling parasites		Measures are taken to prevent or control external and internal parasite infestations such as fly strike, ticks, lice and scab.	Resistance and resilience to disease may include internal and external parasites, fly strike, footrot and fleece rot. Advice shall be sought as needed from a veterinarian or specialist advisor on prevention, treatment and strategies to avoid the development of resistant parasites. When infestations are likely or are found to occur, sheep shall be treated to control the parasites. Internal parasites shall be controlled through grazing management and treatment administered at appropriate times to lifecycle of parasites.	
5.3	Treatments	<b>Treatments are appropriately timed and administered in accordance with registration conditions, manufacturer's instructions or professional advice.</b>	Treatments using chemical agents (such as dipping or back lining) are administered by trained stockpeople who are equipped with appropriate protective and safety equipment.	Any use of anti-parasitics or antibiotics must be part of a planned treatment program, to avoid any development of resistance. Records are kept detailing: - substance (product) administered - animal or group identification - date of treatment BP: Owner/manager keeps informed on developments in treatments (including medicated feeds).	
5.4	Hospital/ treatment pens	<b>Sheep suffering from serious health problems are isolated and treated promptly.</b>	Stockpersons identify and isolate sick and/or injured animals, removing them to segregated pens to prevent further injury (or spread of contagious conditions). Sheep that are isolated for health or biosecurity reasons should have visual contact with other sheep. Animals housed in sick pens are inspected twice daily.	Pens housing sick and injured animals: - are cleaned regularly, with waste materials disposed of in a manner that prevents spreading infection to other stock - are constructed to facilitate effective cleaning - have access to fresh water, and feed, as needed Non-ambulatory animals may only be moved using a humane conveyance method, such as a tarp, sled or cart. Veterinary advice is obtained when needed.	
5.5	Foot care/lameness	<b>Action is taken promptly to treat lameness and to remove any causes of lameness. Flocks are monitored for lame sheep. When footrot or lameness appear in more than 5% of animals, the farmer must initiate a treatment plan that was developed previously to combat the problem.</b>	<b><u>ZT: No footrot abatement plan has been developed.</u></b>	Up to date records are kept detailing treatments, including substance administered and date of treatment. Sudden deaths and disease outbreaks are investigated and recorded, including any follow up actions. Stockpeople are able to recognize lameness, assess severity and take prompt action to resolve the lameness as quickly as possible. BP: Owners/managers develop and implement a bio-security plan to minimize the risk of introducing disease onto a site. The bio-security plan must include: - procedures for cleaning and disinfection of buildings and equipment - specify the approved dilutions at which chemicals are to be used <b>Use lameness indicator scorecard.</b>	Patagonia Plus

SECTION	Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement	
5.6	<b>On-farm euthanasia</b>	<b>Sheep are euthanized humanely without delay if they are experiencing severe pain or illness and do not have a reasonable expectation of improvement.</b>	Each farm has a plan for on-farm euthanasia and slaughter, which contains provisions for emergency euthanasia.	Casualty killing/slaughter is carried out by either: a) a trained, competent worker b) a licensed slaughterman or c) a veterinary surgeon  If there is any doubt as to how to proceed, a veterinarian must be called at an early stage to advise whether treatment is possible or whether humane slaughter/euthanasia is required to prevent suffering.	Partial Patagonia Plus
5.6.1	Identification and handling	All stockpeople are able to recognize when an animal needs to be euthanized, and those with the necessary skills/training are instructed to act immediately.  Unnecessary handling and movement of sheep prior to euthanasia is to be avoided.	All stockpeople with the skills/necessary training have an appropriate device for conducting slaughter on hand when making rounds of the sheep.		
5.6.2	Method	Method of slaughter is quick, causes minimal stress and pain, and results in a rapid loss of consciousness followed by death without the animal regaining consciousness.  Where possible, the sheep are killed away from the view of other animals. <b>CT: Injured animals experience unnecessary distress.</b>	Accepted procedures: - shot to the brain - penetrative captive bolt followed by exsanguination or pithing  Except in situations of emergency euthanasia, stunning prior to killing is required. Stunning may only be skipped in cases of emergency euthanasia, where the animal is in severe pain and finding access to tools for stunning would prolong the suffering.  All equipment used for euthanasia, such as firearms or captive bolt devices, is maintained according to manufacturer's instructions to ensure proper function.		
5.6.3	Confirmation of unconsciousness and death	Death is confirmed through observation of pupils, heart beat and lack of respiration prior to disposal. <b>CT: The spinal cord must not be severed or broken in any animal until after confirmation of death.</b>	Any kind of further processing, such as removal of the skin/hide or hooves, shall not take place until after death is confirmed.	Partial Patagonia Plus	
5.7	<b>Pregnancy</b>	<b>Natural or artificial breeding, or breeding procedures, is carried out by competent operators and appropriate pain relief is provided.</b>	Good hygiene and sanitation is practiced when lambing assistance is required.	Cervical artificial insemination and pregnancy diagnosis shall only be carried out by persons trained and competent with the techniques.  Electroejaculation and laparoscopic artificial insemination shall be carried out only by veterinarians or by trained and competent operators under veterinarian supervision. Appropriate pain relief shall be used.	
5.8	<b>Lambing</b>	<b>Lambing is supervised, and timely action is taken while keeping disturbances to a minimum.</b>	All stockpeople are able to recognize the signs of lambing difficulty, and know when and how to provide appropriate assistance and when to seek assistance from an experienced owner/manager or veterinarian.  In extensive systems, where animals are unaccustomed to daily supervision, breeds or strains suited to easy births and good maternal care should be used.	Stockpersons are able to recognize when assistance from a more experience person or veterinarian is required.  Stockpersons are trained/have knowledge of: - lambing techniques - use of stomach tubes for feeding lambs - all other recovery techniques in the event of lamb hypothermia - treatment techniques for prolapse  Embryotomy must only be performed on dead lambs by a skilled person or veterinarian.	

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
5.8.1	Feeding		<p>Practices and procedures for lamb feeding and fostering are planned prior to the start of lambing, and details shall be outlined in the Flock Health and Welfare Plan.</p> <p>Orphan lambs shall be fed a suitable milk substitute at least four times daily in the first week and at least three times daily in weeks 2 to 4, ensuring they remain in good condition without dehydration.</p> <p>Lamb mortality (between birth and tail docking) should be tracked and monitored for sharp changes and remediation sought to correct it.</p> <p>Close restraints of ewes (involving 'yoking') for the purpose of lamb fostering are allowed only when other methods are not possible.</p> <p>Yoked animals are monitored and cared for, with inspections occurring at least twice every 24-hour period (or three times in very hot weather).</p> <p><b>CT: Sheep are restrained through close confinement or yoking for more than 24 hour periods.</b></p> <p><b>CT: Data regarding lamb mortality must be collected, and when the mortality rate exceeds acceptable levels, a remediation plan must be followed.</b></p>	When automatic feeding equipment is provided, lambs are trained in its use to ensure adequate intake of feed.	Partial Patagonia Plus
6	ANIMAL HUSBANDRY	Managers and caretakers must be thoroughly trained, skilled and competent in animal husbandry and welfare, and have a good working knowledge of their system and the livestock under their care.			
6.1	Husbandry	<b>Surgical procedures are avoided wherever possible and only performed where there is a positive health or welfare benefit for the animal.</b>	<p>There is an Animal Health and Welfare plan in place on the farm.</p> <p>Managers/stockpersons monitor for signs of post-operative complications and take appropriate corrective actions.</p> <p><b>ZT: Cosmetic procedures are employed.</b></p>	<p>The Animal Health and Welfare plan includes:</p> <ul style="list-style-type: none"> <li>- details of risk/benefit assessments for all procedures conducted annually</li> <li>- written procedures outlining the precise protocol followed for all animal husbandry procedures</li> <li>- measures taken to minimize the risk to welfare of the sheep, including steps taken to minimize pain and distress</li> <li>- annual reviews to assess whether the procedures remain necessary, and information on the procedures and pain management protocols are used</li> </ul> <p>BP: Pain management options are discussed with a veterinary surgeon and reviewed regularly.</p>	Partial Patagonia Plus
6.1.1	Operator		<p>Where painful procedures cannot be avoided, all husbandry procedures are performed (or supervised) by a competent manager/ stockperson, using appropriate and well maintained equipment.</p>	<p>Equipment is in good working order and maintained in accordance with manufacturer's instructions.</p> <p>Equipment is sanitized to avoid spreading infection.</p> <p>BP: Where possible, pain relief is used to treat painful procedures.</p>	
6.2	Tail docking	<b>Tail docking is done only when necessary, and in a manner that minimizes the risk to the welfare of sheep, particularly pain and distress.</b>	<p>Tail docking is only performed when necessary and using either:</p> <ol style="list-style-type: none"> <li>Application of a rubber ring (applied between 24 hours and 7 days of age only)</li> <li>Thermocautery, from 24 hours to 8 weeks of age.</li> </ol> <p>Tail docking for lambs over 8 weeks of age is done by a licensed veterinarian with anesthesia and analgesia.</p> <p>The docked tail covers the anus, and in females, the vulva.</p> <p>Lambs shall not be tail docked until the ewe/lamb bond has become established.</p> <p><b>ZT: Tail docking is performed outside of recommended age range, without anesthesia and analgesia and/or without sufficient tail cover retained.</b></p>	<p>The risk of fly strike can often be reduced through various means other than tail docking, including:</p> <ul style="list-style-type: none"> <li>- carefully timed application of appropriate fly deterrent</li> <li>- chemical crutching</li> <li>- avoiding soiling of the rear end, e.g. through reducing worm burdens, considering diet, etc.</li> <li>- genetic selection of breeds/ strains of sheep with lower risk of fly strike</li> </ul>	Patagonia Plus

SECTION	Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement	
6.3	<b>Castration</b>	<b>Castration is only performed when necessary, and in a manner that minimizes the risk to the welfare of the animal.</b>	Acceptable methods of castration are: <ul style="list-style-type: none"> <li>- application of a rubber ring between 24 hours and 7 days (or 6 weeks for pasture lambing systems)</li> <li>- emasculator (burdizzo) for lambs older than 6 weeks, anesthesia and analgesia is required</li> <li>- surgical, with anesthesia and analgesia</li> </ul> <p><b>ZT: Surgical procedures are conducted on-site without anesthesia and analgesia.</b></p> <p><b>ZT: Castration is performed outside of acceptable age range without pain relief.</b></p>	Lambs should not be castrated until the ewe/lamb bond has become established and the animal is more than 24 hours old. Castration is only carried out on males that are being kept beyond puberty. Reduce risk of infection by avoiding muddy and dusty yards and wet and humid weather. BP: Castration is only performed when there are no other alternatives.	Patagonia Plus
6.4	<b>Marking/identification</b>	<b>Any sheep marking for identification is in accordance with current legislation and best practices.</b>	Ear marking/notching, tagging and tattooing are permitted methods of identification. Whenever painful methods are used, the farmer must attempt to minimize distress, pain and infection to the animal. Hot branding is prohibited. Producers shall ensure that all equipment is clean and well maintained, and all materials used to mark sheep for identification purposes shall be non-toxic and designed for use with sheep. <b>ZT: Hot branding is used to mark sheep.</b>	Stockpeople ensure all equipment is clean and all materials used to mark sheep for identification purposes are non-toxic and designed for use in sheep. BP: When available, anesthesia or analgesia are used when painful practices are performed. BP: The use of Microchip identification is used in place of ear marking or notching.	Partial Patagonia Plus
6.5	<b>Disbudding/dehorning</b>	<b>Dehorning, disbudding and substantial horn trimming is prohibited unless needed to address animal welfare.</b>	Minor horn trimming, performed when tip is in contact with face, to avoid injury from ingrown horn, shall be completed by a competent stockperson.	Horned sheep are inspected to ensure the tip or other parts of the horn are not in contact with face. Substantial horn trimming is performed by a veterinarian using anesthesia.	
6.6	<b>Mulesing</b>	<b>Mulesing is prohibited.</b>	<b>ZT: Mulesing is practiced.</b>	Farms with ceased mulesing status are not accepted, unless mulesing occurred more than five years ago.	
7	<b>SLAUGHTER/KILLING</b>	<b>All slaughter/killing systems need to be designed and managed to ensure livestock are not caused unnecessary distress or discomfort. The pre-slaughter handling of livestock must be kept to an absolute minimum. Personnel involved in the slaughter must be thoroughly trained and competent to carry out the tasks required of them.</b>			
7.1	<b>General</b> <i>NOTE: Subsection 7.1 to 7.5 apply to on-farm non-commercial procedures only, e.g. slaughter for consumption on farm.</i> <i>Section 7.6 addresses off-farm commercial slaughter.</i>	<b>Where it is necessary to kill sheep, it is done promptly, safely and humanely.</b>	Owner/manager ensures that any killing conducted on site is conducted by trained operator using humane methods. Slaughter is performed by, or under the direct supervision of, a person with the relevant knowledge, experience and skills to kill the sheep humanely.	All methods of humane slaughter and on-farm euthanasia meet the same criteria: <ul style="list-style-type: none"> <li>- death of an animal without panic, pain or distress</li> <li>- instant unconsciousness followed by rapid death without regaining consciousness</li> <li>- reliability for both single and large numbers of animals</li> <li>- simplicity and minimal maintenance</li> <li>- minimal detrimental impact on operators or observers</li> </ul> For the first year of participation, farmers must develop a system to collect data on the following: <ul style="list-style-type: none"> <li>- number of animals slaughtered</li> <li>- person performing the slaughter</li> <li>- methods of slaughter</li> <li>- person undertaking the stunning checks (if applicable)</li> <li>- number/date/time of each stunning check</li> <li>- number of non-compliant stuns</li> <li>- action taken to correct ineffective stunning</li> </ul> This system must be completed in the following years. BP: Closed Circuit Television (CCTV) can be used in areas where slaughter occurs. Footage can be used to: <ul style="list-style-type: none"> <li>- monitor/maintain animal welfare standards</li> <li>- support in-house training programs</li> <li>- provide an additional level of security</li> </ul>	Partial Patagonia Plus

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
7.1.1	Pre-slaughter handling		<p>Sheep are handled calmly and quietly, in a manner that does not cause unnecessary excitement, panic or distress.</p> <p>Prior to slaughter, handling is kept to a minimum.</p> <p>ZT: Electric goads are used in the abattoir or slaughter facility.</p>	<p>Handling aids include equipment such as rattles, flags, paddles and sticks with streamers, as well as animal handling aids such as dogs or other lead animals (sheep or goats).</p> <p>Handlers work on the edge of the flight zone to keep animals calm and facilitate ease of movement.</p>	Patagonia Plus
7.1.2	Facilities		<p>All on-farm slaughter is conducted in a designated facility or area that is designed and managed to ensure that sheep are not caused unnecessary distress or discomfort.</p> <p>Slaughter is conducted on premises that are constructed and maintained so as to prevent any injury being caused to animals confined there.</p> <p>Animals are properly restrained, and there is appropriate equipment in place for slaughtering.</p> <p><b>CT: Sheep are slaughtered within sight of each other.</b></p>	<p>Races and passageways:</p> <ul style="list-style-type: none"> <li>- are designed, constructed and operated to encourage unimpeded forward movement of the sheep</li> <li>- do not contain any projections or unnecessary obstructions</li> <li>- are lit appropriately and have non-slip flooring</li> </ul>	Patagonia Plus
7.2	Slaughter/killing methods	<b>Sheep are slaughtered using humane methods that cause instant unconsciousness followed by rapid death.</b>	<p>Sheep are stunned/killed using one of the following acceptable methods:</p> <ul style="list-style-type: none"> <li>- captive bolt (penetrating and non-penetrating)</li> <li>- stunning followed by bleeding out</li> <li>- gunshot</li> </ul> <p><b>ZT Sheep are slaughtered using inhumane/unacceptable methods.</b></p>	<p>Unacceptable/inhumane methods of slaughter:</p> <ul style="list-style-type: none"> <li>- blunt trauma to the head</li> <li>- injection of chemical agents into conscious animals or air embolism</li> <li>- electrocution with a 120-V electrical cord</li> <li>- drowning</li> <li>- exsanguination in conscious animals</li> </ul> <p>BP: For horned animals, the most effective shot is behind the poll, pointing towards the mouth of the sheep. The ideal position for shooting sheep is the top of the head, with the bullet traveling down towards the throat.</p>	Partial Patagonia Plus
7.3	Stunning	<b>Sheep are stunned prior to slaughter to render them instantaneously unconscious and insensitive to pain until the point of death.</b>	<p>Effective captive bolt stunning renders more than 95% of sheep insensible in one shot.</p> <p><b>ZT: Animals are slaughtered without stunning.</b></p> <p><b>CT: Prior to neck cut the spinal column is broken.</b></p>	<p>Captive bolt stunning signs of effectiveness:</p> <ul style="list-style-type: none"> <li>- animal collapses</li> <li>- no rhythmic breathing</li> <li>- pupils are fixed and fully dilated, and there is no corneal reflex</li> <li>- jaw is relaxed with tongue hanging out</li> </ul> <p>BP: Captive bolt stunning is recommended in poll position for horned sheep.</p>	Partial Patagonia Plus
7.3.1	Checks		<p>Regular checks are made to ensure that animals are being effectively stunned and are insensible throughout the slaughter operation.</p> <p>If there are signs that stunning has not been completely effective, or that animals are displaying signs of recovery from a stun, re-stunning must occur immediately.</p>		Patagonia Plus

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
7.3.2	Firearm- free bullet		When other methods of stunning are not followed, sheep are killed humanely using free bullet.	<p>Sheep are shot using one of two positions:</p> <ol style="list-style-type: none"> <li>1. Frontal method-the firearm is directed at a point midway across the forehead, where two lines from the topside of the base of the ears and top of the eyes intersect. The line of fire should be aimed horizontally into the skull towards the center of the brain or spinal cord.</li> <li>2. Poll method (for horned sheep)-the animal is shot through the skull just behind the base of the horns. The line of fire should be in line with the animal's muzzle.</li> </ol> <p>Signs of effective kill using a firearm:</p> <ul style="list-style-type: none"> <li>- animal collapses immediately</li> <li>- no rhythmic breathing</li> <li>- no corneal reflex</li> <li>- twitching and convulsions may start shortly afterwards</li> </ul>	Partial Patagonia Plus
7.4	<b>Exsanguination</b>	After stunning, a secondary procedure is performed to let the animal bleed out.	<p>The stun-to-stick interval should be between 15-20 seconds.</p> <p>Acceptable methods of bleeding out:</p> <ul style="list-style-type: none"> <li>- chest stick or thoracic bleeding method</li> <li>- throat cutting</li> </ul>	<p>Both carotid arteries and jugular veins (throat cut), or the major blood vessels near the heart (chest stick), must always be completely severed during sticking.</p> <p>Bleeding out must be rapid, profuse and sufficient to ensure that the animal is dead.</p>	Patagonia Plus
7.5	<b>Confirmation of death or unconsciousness</b>	Reasonable actions are taken to confirm death.	Three or more signs are observed to determine whether the method used for humane killing has caused death.	<p>Signs of death include:</p> <ul style="list-style-type: none"> <li>- loss of consciousness and deliberate movement</li> <li>- absence of a corneal 'blink' reflex when the eyeball is touched</li> <li>- maximum dilation of the pupil</li> <li>- absence of rhythmic respiratory movements for at least five minutes</li> </ul>	Partial Patagonia Plus
7.5.1	Equipment		The equipment used for the stunning and killing of animals is designed, manufactured and maintained to ensure rapid and effective stunning or killing.	<p>Reserve equipment for stunning and killing is kept at the place of slaughter for use in an emergency, and checked at least once weekly to ensure it is in working order and a good state of repair.</p> <p>Sheep must be stuck using a sharp knife which is a minimum of 5 inches (12cm) long.</p> <p>All slaughter equipment is thoroughly cleaned after use.</p>	Patagonia Plus
7.6	<b>Off-farm slaughter</b>	<b>All off-farm slaughter is conducted at slaughterhouses that follow humane practices.</b>	<p>Grower will only sell animals to slaughterhouses/abattoirs that have been verified to meet the requirements listed for on-farm slaughter, at a minimum.</p> <p>Farmers are granted a phase in periods of three years to ensure the slaughterhouses where animals are processed follow generally recognized humane procedures, including:</p> <ul style="list-style-type: none"> <li>- death of an animal without panic, pain or distress</li> <li>- instant unconsciousness followed by rapid death without regaining consciousness</li> <li>- reliability for both single or large numbers of animals</li> <li>- simplicity and minimal maintenance</li> <li>- minimal detrimental impact on operators or observers</li> </ul>	<p>Verification methods that slaughterhouses meet acceptable standards include:</p> <ul style="list-style-type: none"> <li>- certification to an approved third party humane standard</li> <li>- a third party audit to the requirements listed in on-farm slaughter</li> <li>- proof of a positive result from a government animal welfare inspection (the government animal welfare inspection must be approved by Patagonia)</li> </ul>	Patagonia Plus

SECTION		Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement
8	TRANSPORTATION	Animal transport systems must be designed and managed to ensure livestock are not subjected to unnecessary distress or discomfort. Transportation and handling of livestock must be kept to an absolute minimum. Personnel involved in transport must be thoroughly trained and competent to carry out the tasks required of them.			
8.1	General	<b>Animal transport systems are designed and managed to ensure livestock are not subjected to unnecessary distress or discomfort.</b>	<p>There is a transport plan in place.</p> <p>Sheep are transported to abattoirs that are verified humane and located within close proximity of the farm.</p>	<p>The responsibility for ensuring that animals are fit for transport lies with the party that is shipping (or causing to be loaded) the animals.</p> <p>Owner/manager ensures that all personnel directly involved with the transport of sheep are adequately trained and knowledgeable of their care.</p> <p>On-farm records are kept of injury and death rates associated with all transport of their sheep, and take actions to address high rates.</p>	Patagonia Plus
8.1.1	Handlers		<p>Catching, handling and loading of sheep is carried out quietly and confidently by trained and competent personnel.</p> <p>Time spent waiting and in transit is minimized to reduce distress and discomfort.</p>	<p>Animal handlers are trained to:</p> <ul style="list-style-type: none"> <li>- understand the stress factors affecting sheep</li> <li>- how sheep react towards other sheep, humans and dogs</li> <li>- how sheep react towards strange noises, sights, sounds and smells</li> </ul> <p>Handling aids include equipment such as rattles, flags, paddles and sticks with streamers, as well as animal handling aids such as dogs or other lead animals (sheep or goats).</p> <p>Handlers work on the edge of the flight zone to keep animals calm and facilitate ease of movement.</p> <p>BP: When handling/moving sheep, consideration is given to the behavioral characteristics of sheep, with measures taken to:</p> <ul style="list-style-type: none"> <li>- minimize exposure to loud noise</li> <li>- not leave in isolation while in transit</li> </ul>	Patagonia Plus
8.2	Journey time	<b>Transport of sheep is kept to a minimum.</b>	<p>Sheep are not to be transported for more than 13 hours from the first sheep loaded to the last sheep unloaded.</p> <p><b>ZT: Sheep are transported for more than 13 hours without a rest break for feeding and watering.</b></p> <p><b>ZT: Sheep are deprived of water for more than 12 hours total.</b></p> <p><b>CT: Sheep are deprived of food for more than 24 hours total.</b></p>	<p>Where animals are transported over long distances, appropriate provisions are made for feeding and watering.</p> <p>Young or pregnant animals should not be transported for more than 12 hours.</p> <p>Animals must not be deprived of water for more than 12 hours total, or food for more than 24 hours total. This time off of water and food includes fasting the night before transportation, transportation, and time at the slaughterhouse prior to killing.</p>	Patagonia Plus
8.3	Pre-transport grouping/extra care	<b>Sheep are transported in their on-farm social groups and penned in groups of similar age and size.</b>	<p>All sheep must be assessed as fit for transport.</p> <p><b>ZT: Injured or compromised animals are transported other than for treatment or euthanasia.</b></p> <p><b>CT: Sheep are not transported in their peer groups.</b></p>	<p>Fitness for transport is one of the most critical welfare issues during transport. An animal must be fit enough to endure the normal stress of transport. Other factors that may affect fitness during transport include weather, trailer condition, other animals, driver skill, genetics, footing and length of journey.</p> <p>Unfit animals cannot be transported, except for further treatment.</p> <p>Compromised and injured animals may be transported to slaughter only, direct to abattoir.</p> <p>If ewes are heavily pregnant, they cannot be transported.</p>	Patagonia Plus



SECTION	Requirement	Detailed Benchmark Standard	Guidance	Patagonia Plus Requirement	
8.4	Loading/ unloading	<b>Loading/unloading systems are designed and operated for the safe handling of sheep.</b>	<p>Loading/unloading systems are designed to facilitate the safe movement of sheep.</p> <p>Ramps are set at an incline of no more than 20% and have measures in place to prevent injury.</p> <p>To avoid bruising, sheep should not be rushed during unloading.</p> <p><b>ZT: During handling and loading onto vehicles more than 1% of sheep fall down.</b></p> <p><b>CT: Ramps set at an incline more than 20%.</b></p>	<p>Both loading ramps and tail boards are fitted with a means of preventing animals from falling off or slipping.</p> <p>Races and gates are designed and operated so as not to impede the movement of sheep.</p> <p>Gates and catches are baffled to reduce noise when they shut.</p> <p>Management should closely supervise truck unloading.</p>	Partial Patagonia Plus
8.4.1	Timeliness		<p>Unloading should begin within 30 minutes of arrival, with all sheep completely unloaded within two hours.</p>	<p>Time spent waiting and in transit is minimized to reduce distress and discomfort.</p>	Patagonia Plus
8.5	Transport conditions	<b>Provisions are made for the care of animals during the journey and at the destination, with particular care taken with fatigued, old, young, infirm, pregnant and/or nursing animals.</b>	<p>During transport, animals are protected from extremes of heat and cold and provided with adequate ventilation.</p> <p>Efforts are made to reduce noise where possible.</p>	<p>The floors of all vehicles are covered with sufficient bedding in order to provide comfort and reduce the likelihood of injury.</p> <p>In hot weather, transport should start in early morning or at night.</p> <p>Trucks are kept moving, and unnecessary stops avoided to keep humidity and temperatures low.</p>	Partial Patagonia Plus
8.5.1	Space		<p>Sheep are neither too loosely nor too tightly loaded, so as to reduce the risk of excessive movement or overcrowding resulting in injury.</p> <p>Overloading trucks can increase bruising, dead or injured animals.</p> <p>Semi-trailers have sufficient height between decks to prevent back injuries.</p>		Patagonia Plus
8.5.2	Vehicles (trailers)		<p>Trailers used to transport sheep are clean and kept in good repair, with the capacity to withstand the weight of the animals, and of a suitable height to enable them to stand in a natural position.</p> <p>Trailers are outfitted with non-slip flooring and fully functioning internal ramps, and gates and doors that open/close freely and secure as needed.</p>	<p>There are no sharp or protruding objects on the trailer that may injure the livestock.</p> <p>A stockperson must confirm that trucks are in good repair, clean and adequately bedded.</p> <p>BP: To comply with environmental regulations, truck floors should be leak proof to prevent urine and manure from dripping onto the highway, and plugs should be cleaned out.</p>	Patagonia Plus
8.6	Drivers (transporters)	<b>Drivers are aware of the effect of their driving style and transport conditions on animal welfare and make the effort to drive smoothly.</b>		<p>Those arranging shipping need to know whether the transporter needs to provide additional services (e.g. feed, water, rest, milking, etc.) during transit.</p>	Patagonia Plus

## References - Animal Welfare Standard Development

Standard or Reference Title	Author description
Responsible Wool Standard	Textile Exchange
Grazing Animals Project: A Guide to Animal Welfare in Nature Conservation Grazing	UK Government (Department for the Environment, Food and Rural Affairs) and NGO coalition (English Nature, Royal Society for the Protection of Birds, National Trust, The Wildlife Trusts, Royal Society for the Prevention of Cruelty to Animals (RSPCA)- UK)
RSPCA welfare standards for sheep	RSPCA Freedom Foods with recommendations from Farm Animal Welfare Committee
Humane Farm Animal Care	Humane Society (US), American Society for the Prevention of Cruelty to Animals (ASPCA)
American Veterinary Medical Association Guidelines for the Euthanasia of Animals	American Veterinary Medical Association
Recommended Animal Handling: Guidelines and Audit Guide	Dr. Temple Grandin with the American Meat Welfare Committee
Animal Welfare (Painful Husbandry Procedures) Code of Welfare 2005	National Animal Welfare Advisory Committee (in consultation with industry)
Code of Practice - For the Care and Handling of Sheep	Canadian Sheep Federation and National Farm Animal Care Council
What's the Score? Body Condition Scoring Guide - Sheep	Alberta Government - Agriculture and Forestry, Canada
Australian Animal Welfare Standards and Guidelines for Sheep	Animal Health Australia (AHA)
What do we mean by humane killing or slaughter?	RSPCA website