

Background

The information in these factsheets was developed under the [Dutch Agreement on Sustainable Textiles and Garments \(AGT\)](#), in the light of supporting the process of doing due diligence by textile companies with regard to the theme of animal welfare. The factsheets are based upon a report entitled '[Animal welfare in the clothing and textile industry](#)' (available in Dutch only) compiled by a student under the auspices of the Dutch Ministry of Agriculture in 2017. The information, recommendations and methods described came about through a multi-stakeholder consultation process, involving companies, industry players, NGO's, the Dutch Ministry of Agriculture and the secretariat of the Agreement.

The information as such does thus not represent the opinion, stance or strategic guidance of one particular organization.

Information in this report can aid textile and clothing companies to undertake the process of 'due diligence', the process through which enterprises can identify, prevent, mitigate and account for how they address their actual and potential adverse impacts as an integral part of business decision-making and risk management systems.

Scope of the factsheets

The goal of the initial report and of these factsheets is to inform textile companies about the animal welfare aspects of the Animal Derived Materials (ADMs) leather, wool, down and feather, fur and silk used in the clothing industry. For each material, solution directions were described in order to avoid or mitigate animal welfare risks in the production and value chain.

The factsheets only describe animal welfare risks; other sustainability criteria, such as environmental and social considerations, should also be part of the due diligence process of companies in order to source responsible materials.

Selection of materials, species and countries

In order to capture information about the most commonly used animal derived materials, five types of ADM's were selected based upon the production numbers, the relevance for the Dutch market and the nature of the animal welfare risks. These factsheets cover the following materials and species:

- Leather: bovine, sheep, pig and exotic species
- Wool: sheep, goats and rabbits
- Down and feathers: ducks & geese
- Fur
- Silk

Literature

A broad array of reports, articles, websites and books produced by trade organisations, societal organisation, governments, scientists and commercial companies was used to compile the information contained in these factsheets.

In order to obtain production numbers, online database such as FAOSTAT, FAO reports and information from trade organisations such as Fur Europe and the International Wool Textile Organization were used.

Information about certification systems was found through search engines and through the website sustainabilitymap.org.

Information about the non-animal alternatives which can be used instead of a particular ADM was found by using search engines, and supplemented by information on websites of for example patented materials.

Interviews

Besides literature research, interviews were held with animal welfare, certification and value chain management experts, as well as with experts from the leather, wool, down & feather, fur and silk industry. These experts were also asked to formulate solution directions in order to minimise animal welfare risks in value chains.

Readers are referred to the full-length report [Animal welfare in the clothing and textile industry](#) to assess references.

Solution directions

These factsheets recognise four possible solution directions in order to avoid or mitigate animal welfare risks in textile value chains:

1. apply certification schemes
2. choose alternatives
3. collaboration in the value chain
4. source ADM's from low-risk countries

The above solution directions are not all-encompassing and are not necessarily completely effective if implemented separately. Companies may choose to take other actions in order to reduce animal welfare risks in their value chain or a combination of different solutions. Strategies to reduce, recycle and replace the use of Animal Derived Materials are diverse, but applicability is dependent upon the specific companies' operations.

When applying solution directions, the restrictions of the solutions will need to be taken into consideration. A certification scheme for example, does not guarantee that all provisions and regulations are adhered to by a production companies. When sourcing ADM's from an apparent low-risk country, the resource may still have been produced in a high risk country, and companies are advised to assess the true provenance and production methods of the ADMs used in their value chain.

Animal welfare risks can be excluded at all times by not using Animal Derived Materials

Disclaimer

These factsheets intend to inform companies who source or sell Animal Derived Materials which are being used in the clothing and textile industry. The information is based upon literature research and interviews undertaken in 2017, and not on field research.

The goal is not to provide judgment about the use of ADM's or specific production countries, but to inform companies about animal welfare risks and ways to avoid or mitigate these. The solution directions are only suggestions; the feasibility of implementing the solutions depends on the company and its specific value chain.

It is up to a company to set up a vision for the use of animals and the animal welfare criteria which apply in their value chain, and formulate an animal welfare (or materials) vision and policy, based upon their branding and business practices.

More and more research is constantly becoming available, so these factsheets cannot be all-encompassing considering every piece of information and research. Companies are advised to undertake their own research, and only use these factsheets as an aid to determine the actual animal welfare risks in their respective value chains.

The SER, the AGT and the involved institutions can not be held responsible for potential mistakes in the information provided, and are not accountable for potential damage resulting from the use of the information in these factsheets. ■

Due diligence

Undertaking due diligence for animal welfare issues in the clothing and textile industry

Information in these factsheets can be used by companies in their due diligence (risk analysis and management) with regard to animal welfare. In this introductory sheet, we explain some background with regard to animal welfare and the process of undertaking due diligence.

Animal welfare

There is no unambiguous scientific definition of animal welfare, and in all definitions being used there are no given criteria to determine whether good animal welfare has been reached. There are numerous perspectives on animal welfare that are influenced by a person's values and experiences. The way we treat animals is largely dependent upon the moral position we assign to animals; this determines how much we take their interests into consideration. There are also various sets of indicators on animal welfare. These factsheets use the '[Five Freedoms](#)' model for measuring animal welfare.

The Five Freedoms

There are various definitions of animal welfare, with the 'Five Freedoms' currently the most often used model to determine animal welfare. The Five Freedoms define ideal states rather than standards for acceptable welfare. They are:

1. Freedom from hunger or thirst by ready access to fresh water and a diet to maintain full health and vigour
2. Freedom from discomfort by providing an appropriate environment including shelter and a comfortable resting area
3. Freedom from pain, injury or disease by prevention or rapid diagnosis and treatment
4. Freedom to express (most) normal behaviour by providing sufficient space, proper facilities and company of the animal's own kind
5. Freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering

Risks with regard to animal welfare refer to the risk of a certain practice or abuse whereby breaches of one or several of the Five Freedoms for animal welfare takes place. The risks can occur during breeding, keeping, handling, performing mutilations, transporting and slaughtering or killing of animals.

Legal status of animals

In the Netherlands the intrinsic value of an animal is recognised, and captured in the '[Wet Dieren](#)' (Law on Animals, article 1.3). This means that animals are seen as sentient beings who have their own value, apart from the utility value for humans. Consequently, humans should ensure the welfare of animals is respected and avoid violations of the integrity of animals. Under Dutch law, animals may not be used, kept or killed, unless there are substantial reasons to justify the infringement of the intrinsic value.

The European Commission has also been promoting animal welfare for over 40 years gradually improving the lives of farm animals. An important step was [Council Directive 98/58/EC on the protection of animals kept for farming purposes](#) (1998) which gave general rules for the protection of animals of all species kept for the production of food, wool, skin or fur or for other farming purposes, including fish, reptiles or amphibians. These rules are based on the [European Convention for the Protection of Animals kept for Farming Purposes](#) and they also reflect the 'Five Freedoms'.

When the Lisbon Treaty came into force in 2009 it amended the '[Treaty on the Functioning of the European Union](#)' (TFEU) and introduced the recognition that animals are sentient beings. Article 13 of Title II states that:

“In formulating and implementing the Union’s agriculture, fisheries, transport, internal market, research and technological development and space policies, the Union and the Member States shall, since animals are sentient beings, pay full regard to the welfare requirements of animals, while respecting the legislative or administrative provisions and customs of the EU countries relating in particular to religious rites, cultural traditions and regional heritage.”

Due diligence

Due diligence is the process in which companies identify, assess, prevent and reduce the risks that certain negative impacts occur in their value chain; and practice risk assessment and management. Due diligence also refers to the communication about this process, both within the company, as well as externally. Due diligence is a continuous process, where companies keep on monitoring risks and take effort to avoid or minimise these risks.

OECD guidance for doing due diligence

The [OECD](#) defines due diligence as

Due diligence is the process enterprises should carry out to identify, prevent, mitigate and account for how they address these actual and potential adverse impacts in their own operations, their supply chain and other business relationships, as recommended in the OECD Guidelines for Multinational Enterprises. Effective due diligence should be supported by efforts to embed Responsible Business Conduct into policies and management systems, and aims to enable enterprises to remediate adverse impacts that they cause or to which they contribute.

The OECD guidelines do not mention the theme of animal welfare, casting doubt on whether the OECD guidelines are applicable to the animal welfare issues at hand. However, the specific guidance pertaining to agricultural supply chains, issued by the OECD and FAO in 2016 ([OECD FAO Guidance for Responsible Agricultural Supply Chains](#)), does mention animal welfare as one of the societal risks which should be taken into full account. The [ISO26000 guidance on social responsibility](#) also includes animal welfare.

In the Netherlands, the Parliament acknowledged in 2007 that animal welfare is part of corporate social responsibility ([motion 26485, nr. 50](#)) and reaffirmed the commitment to address animal welfare through IMVO covenants in 2018 ([Kamerbrief Min. Schouten](#)).

Roadmap for animal welfare due diligence

With regard to animal welfare, it is recommended to adhere to the following seven steps:

1. Formulate a vision on animal welfare and the use of animals for the production of textiles and clothing
2. Formulate a policy with regard to the production and the use of ADMs
3. Analyse the value chain
4. Determine and prioritise animal welfare risks in the value chain
5. Apply solution directions to avoid or mitigate animal welfare risks
6. Communicate your policy with regard to animal welfare
7. Monitor the animal welfare risks

Due diligence is an ongoing process and companies are advised to continuously monitor ADM use in their value chain and mitigate animal welfare risks.

1. Formulate a vision

Companies should determine their own vision with regard to

- using animal derived materials for clothing in general
- animal welfare criteria which hold for production/husbandry systems of a supplier of ADMs

The following questions can aid companies in setting up a vision:

- a. Which value do we accrue to animals? Do animals only have an instrumental value, or do we recognise the intrinsic value of animals?
- b. Do we, as a company, find it morally acceptable to keep animals for the production of animal derived materials for the manufacturing of textile and clothing?

- In which case do we find this morally acceptable, in which cases not?
 - Does it matter whether animals are kept for other products, (f.e. meat)?
 - Does it matter whether animals need to be killed (f.e. fur) or not (f.e. wool)?
- c. How do we define animal welfare? Think about the Five Freedoms and other models and definitions, taking into consideration animal health, emotional wellbeing and the possibility to exhibit natural behaviour.
- d. Which animal welfare criteria are relevant for us during production? Think about criteria for housing, feed, mutilations, health management, reproduction, transport and slaughter.
- e. Do we adhere to the same animal welfare criteria for different species used for textile and clothing (f.e. minks vs. sheep vs. silk worms), or can these differ per species?
- f. Which practices outstep our animal welfare norms, which practices should be avoided or forbidden?

2. Formulate a policy

- Determine which ADMs can and which cannot be used
- In case an ADM cannot be used, describe this in policy and communicate internally (buyers, designers, suppliers, staff in stores, etc.)
- In case a specific ADM can be used, formulate buying criteria and describe (based upon your vision) which animal welfare criteria hold for sourcing this resource. Consequently, take steps to assess the animal welfare risks in your value chain and avoid or mitigate these.

3. Analyse the value chain

- Map your value chain and investigate your value chain partners - who supplies who?
- Pose questions to determine the provenance and the production method of ADMs. Try to determine the producer of the ADMs, and how the animals are kept, transported and killed. If possible, visit suppliers to assess and discuss their business practices.
- Cross-check the information you have obtained with your vision and the animal welfare criteria you have defined.
- Ask for advice from experts.

The following questions are an indication for the information you would want your suppliers to provide:

- What is the source of the ADM? Is it a by- or co-product of meat or dairy production, is it from wild-caught animals etc.?
- Where was the ADM produced and who (which farm/company) is the producer?
- How were the animals kept and under which circumstances (housing, feed, mutilations, health management etc.)?
- How were the animals transported?
- How were the animals slaughtered or killed, and under which circumstances?

4. Determine and prioritise the animal welfare risks in your value chain

- Determine, based upon the information collected, the risks per ADM in your value chain. Risks can be assessed based upon the severity of the impact and the likelihood that it will happen.
- The information in these factsheets, as well as the information from other sources and discussions with (local) experts or NGOs can be used to determine the risk, and the severity and the likelihood of it occurring.
- Cross-check with your vision: are the animal welfare risks acceptable, or incompatible with your vision?
- Prioritise the animal welfare risks based upon their size and your vision on animal welfare.

5. Apply solution directions to avoid or mitigate animal welfare risks

- Formulate buying criteria for the provenance and production methods of ADMs. Consider sourcing ADMs from countries or primary producers where they are being produced in line with your vision on animal welfare.
- Consider sourcing ADMs which are certified according to a standard with animal welfare criteria
- Consider using more sustainable ADMs like recycled materials
- Enlarge product traceability and transparency for the production of ADMs in your value chain. Collaborate

with suppliers, implement traceability systems or collaborate directly with agricultural enterprises provisioning ADMs. Transparency and traceability are essential to ensure your supply chain is truly free of animal welfare risks.

- Join initiatives for more traceability and more animal-friendly production methods

6. Communicate your policy

- Communicate your approach to address animal welfare risks inside your company (buyers, designers etc.) and to your value chain partners
- Consider to publish your animal welfare policy and approach (f.e. through your website, social media, etc.), and to take part in initiatives declaring your choices (f.e. the [Fur Free Retailer program](#))
- Consider to inform your customers about the use of certain (certified) ADMs

7. Monitor the risks

- Monitor your efforts to mitigate the animal welfare risks in your value chain by constantly interacting with your suppliers, by studying reports of certifying/controlling institutions and by keeping track how much ADMs your company is using and which part of that was produced in a more animal-friendly way
- Constantly enlarge your insight in your value chain. Aim for knowing the provenance and production method of each ADM you use.
- Continuously look for new and more information, by visiting suppliers, conversations with other companies, meeting ADM experts and exchanging with animal welfare experts.
- Research new and existing certification systems and determine which system covers the identified risks.
- Keep on cross-checking whether the animal welfare criteria adhered to are in line with your vision on the use of animals.

Solution directions

These factsheets recognise four possible solution directions in order to avoid or mitigate animal welfare risks in textile value chains:

1. apply certification schemes
2. choose alternatives
3. collaboration in the value chain
4. source ADMs from low-risk countries

The above solution directions are not all-encompassing; companies may choose to take other actions in order to reduce animal welfare risks in their value chain. Strategies to reduce, recycle and replace the use of animal based textiles are diverse, but applicability is dependent upon the specific companies' operations. When applying solution directions, the restrictions of the solutions will need to be taken into consideration. A certification scheme for example, does not guarantee that all provisions and regulations are adhered to by production companies.

Animal welfare risks can be excluded at all times by not using Animal Derived Materials.

1. Apply certification schemes

Applying certification schemes as a solution direction implies that companies source materials and products which have a certificate or label which indicates that the materials were produced with certain (improved) animal welfare methods and with certain traceability demands. Companies wishing to produce certified materials (often agricultural enterprises and sometimes also slaughterhouses) are being checked regularly by auditing institutions to assess whether they meet the requirements of the label and certifying institution. If the production circumstances meet the certificate criteria, the material is often accompanied by a declaration or certificate. For some certification schemes, other value chain actors also have to adhere to the administrative and logistic demands in order to ensure the certified material is not 'mixed' with uncertified material. To guarantee the identity of the material along the value chain, transaction-certificates are often being used for each batch of certified products. Often such a transaction certificate is issued by an independent certifying institution upon confirmation that requirements are met.

Because certification schemes provide regular controls and audits of the production enterprises, compliance is often higher than compliance to regular laws and regulations (where companies are never, or very sporadically, checked by enforcement agencies). However, not all practices can be monitored at all times in each company, and fraud and administrative errors can still occur.

It is thus important to assess certification schemes critically, and to realise the limitations of these schemes, and take additional measures if needed to ensure compliance to the brands animal welfare vision and policy.

The following attention points should be considered when analysing certification schemes:

- Which animal welfare criteria and risks does the certification scheme cover? Some schemes only forbid certain practices (such as mulesing in the case of merino sheep), while others prescribe extensive protocols to ensure enhanced animal welfare along the lines of the Five Freedoms.
- How robust are the audits and schemes? The frequency of inspections, which steps of the supply chain are checked, and whether these inspections are carried out announced or unannounced. A higher amount of unannounced inspections will probably lead to better adherence to the criteria set out in the scheme. The most robust certification schemes cover all steps of the supply chain from animal to final product, with special emphasis on levels where live animals are to be found.
- Assess whether the certification scheme demands continuous improvements from the standard itself, or suppliers to continuously improve their practices in order to stay certified, versus whether the company gets certified for a long period of time. Certification schemes should ideally be subject to revisions where they improve and become more robust with time, therefore bringing standard users' supply chains forward as well.
- A last attention point is the identity and vision of the institution which devised the scheme. Some certification schemes were set up in order to give the product-group a positive image, not necessarily to improve sustainability and animal welfare.

2. Choose alternatives

Companies may choose to replace their ADMs with recycled materials from animal origin or materials which are not from animal origin. In the first instance, animal welfare risks are minimised, in the second they are avoided. By using for example recycled leather, no new animals need to be reared and slaughtered. Some ADMs can be imitated (f.e. faux fur or artificial leather). However, determining which material can be used instead of an ADM requires a good analysis of all the different aspects related to sustainability; social, environmental, and animal welfare criteria need to be assessed in order to make a well-informed decision. Here it is also essential to ensure that the material is truly recycled or not from animal origin using audits, testing or other forms of controls.

3. Collaboration in the value chain

Companies may choose to undertake 'value chain management' and implement measures in their value chain in order to minimise animal welfare risks. The following measures can be taken:

- Approach value chain partners for a closer collaboration in 1) sourcing responsibly produced ADMs 2) collaboration in due diligence research 3) sourcing materials in a specific country 4) sourcing certified materials and/or 5) adhering to certification schemes.
- Implementation of traceability schemes to know where an ADM was sourced, so that animal welfare risks can be analysed and if needed mitigated. There are various technological options to trace goods along value chains. However, the concerned value chain partners need to be prepared to implement these technological solutions, and divide the burden of investments, benefits and disadvantages of such a system.
- Re-designing the value chain, such as for example 'backwards vertical integration' whereby a company performs the previous production phase itself, instead of sourcing resources at a supplier. A company thus minimises the tiers in the value chain, and options for traceability, transparency and leverage are enlarged.
- Another example is for a company to source the raw materials itself at a farm, slaughterhouse or supplier, and demand other value chain partners to work with this material. Companies applying this approach know exactly where their products and materials are made, and can easily monitor and mitigate animal welfare risks at the level of the primary producer.

It is worth noting though that the majority of companies do not have the resources to fully manage their value chain, in which case collaboration with supply chain partners and adhering to certification schemes are key.

4. Source ADMs from low-risk countries

Companies may choose to source their ADMs in 'low risk countries', where animals are kept at a relatively animal-friendly way and the risks for animal welfare violations are low.

In order to apply this solution, a company would need to know exactly which animal welfare risks are prevalent in certain production systems in different countries. When this is impossible, the animal welfare legislation and enforcement in a specific country can be used as an indicator for the level of animal welfare in a country's production facilities. Points of attention are the regulated animal welfare themes (husbandry practices, slaughter practices, health management, transport regulations etc.), the scope of the legislation (species, production animals vs. wild animals etc.), the level of detail in the legislation and the existence of exceptions. Another issue to consider is whether the legislation is being enforced effectively.

Because of the lack of transparency in value chains and the fact that raw materials from different countries are often mixed to reach a desired quality, making it difficult for an end-user to determine the provenance of the material, this solution cannot always be applied. Often other steps to improve transparency and traceability in the value chain need to be undertaken first. ■

Down and feathers

Down and feather from geese and ducks

Animal welfare concerns

Most eggs are collected at a parent farm and hatched in an incubator. After hatching, ducklings (ducks) and fledgelings (geese) are kept at a duck or geese farm. In the case of ducks, this is mostly an intensive production system where the animals are kept indoors permanently on slatted floors and without access to open water. Most geese are kept indoors on floors with bedding during the first few weeks of their lives, and thereafter are commonly housed outdoors. Access to open water is often not present.

- Lack of access to open water deprives the animals of the possibility to exhibit natural behaviour, which can lead to stress and various health problems.
- Slatted floors without covering can cause the animals to slip and fall and can negatively effect foot health.
- Additionally, this barren environment increases the incidence of feather pecking (ducks)
- A low light density inside barns can lead to limping, sight problems and fears.

Live plucking generally occurs only with geese, from an age of approximately 10 weeks, for every 6-7 weeks. Because not all animals in one farm molt simultaneously, the feathers are often pulled-out from the animal instead of the (legally allowed) harvesting of loose feathers. Besides that, there is a risk of rough treatment in the process of plucking, leading to stress and injuries.

Geese and ducks are the most commonly used species for feathers and down.

Ducks belong to the family of *Anatidae* (water birds), with more than 40 species being used for meat, eggs, foie gras, down and feathers.

Geese belong to the family of *Anatidae* (water birds), with most domestic geese descending from two species (greylag goose, *Anser anser* and swan goose *Anser cygnoides*). Most geese are used for meat, eggs, foie gras, down and feathers.



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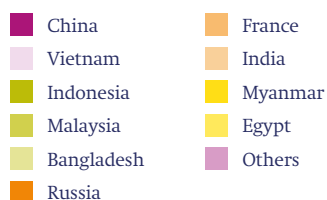
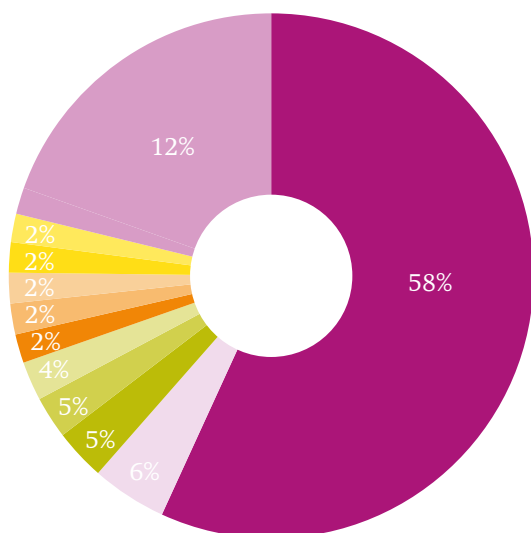
- Because of the lack of regular controls, live plucking of geese occurs in some EU countries. It is not prohibited in most non-EU countries.
- Male ducks and geese are force-fed to produce foie gras. Female ducklings are not used for foie gras production and are often killed right after birth. In foie gras production, large amounts of food are being administered directly into the gut of the animals through a tube in order to enlarge the liver.
- The process of force-feeding is highly stressful, it heightens the chance of injuries to the liver and broken bones and can lead to injuries of the oesophagus. Force feeding is allowed in Europe in France, Hungary, Bulgaria, Belgium and Spain, and is also applied in Canada, the US and China. The by-product, down and feathers, are exported and used in all countries.
- Beak trimming in ducks is often carried out without anaesthesia or pain relief. This is the procedure in which the tip of the beak, a very sensitive part of the birds' body, is removed to avoid feather pecking. It is stressful, leads to instant pain and can lead to chronic pain.
- The most commonly used method of stunning prior to slaughter is dipping the animals into an electrically charged bath - sometimes missing the head of the animal and thereby not stunning all animals effectively.
- Especially in countries with a lack of animal welfare legislation and enforcement, there is an increased risk that stunning is not used at all, but that the throat of the animals is cut while the animal is still conscious.

Worldwide production

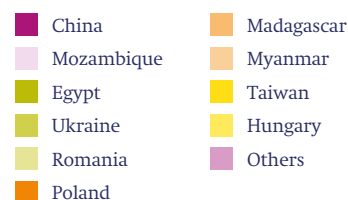
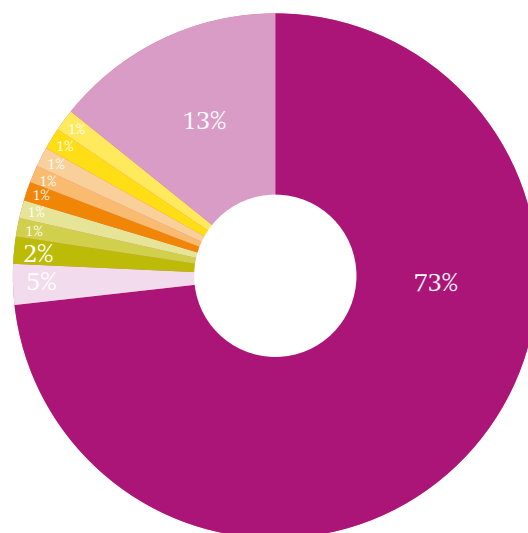
Worldwide, around 1,132 billion ducks were kept in 2014, out of which 58% in China.

In 2014 around 327 million geese and guinea fowls were kept; 73% in China.

Provenance ducks (2014)



Provenance geese and guineafowls (2014)



Solutions

1. Apply certification systems

There are three certification systems for down and feathers excluding live plucking and force feeding and with substantial demands regarding animal welfare.

Responsible Down Standard (RDS) is a standard governed by Textile Exchange and has modules with regard to the farm, transport and slaughtering ducks and geese. There is an optional module for parent farms. RDS guarantees traceability with the Content Claim Standard, which is mandatory for all parties in the value chain (except retail and consumers) in order to use RDS down and feathers. Inspections are carried out by an independent party, at least every 14 months.

Traceable Down Standard is based upon the recommendations in the 'International Finance Corporation's Good Practice Note on Animal Welfare in Livestock Operations'. Companies that use live plucking or force feeding cannot be certified. The standard is also mandatory for parent farms. Inspections are carried out by an independent party.

Downpass 2017 is the recently reviewed version of Downpass and also excludes live plucking and force feeding. It is based upon legislation in the EU and guarantees transparency in the value chain. There are different modules for farms, transport companies, slaughterhouses and producers and suppliers of down and feathers. There is an optional module for parent farms. During the validity of the certificate, companies receive at least one announced and one unannounced audit. *The International Down and Feather Laboratory (IDFL)* is the certifying body for Downpass 2017, and it is unclear how detailed the audits are of this organisation.

2. Choose alternatives

Companies may choose to reduce the use of down or use alternative materials to substitute conventional down and feathers:

- Recycled down and feathers are reclaimed from textile waste but this also means that it is not possible to find out under which circumstances the animal lived and died.
- Synthetic alternatives which have a comparable isolating function: Primaloft, Thermolite, 3M Thinsulate Insulation, FullRange, PolarTec Alpha, Polarguard and Climashield
- Kapok is a natural alternative; the kapok fibre is obtained from seed pods of the kapok tree
- Fibres of the *Asclepias* (periwinkle) can also be used as an isolating stuffing material

3. Value chain collaboration

Companies may choose to undertake due diligence and collaborate in their value chain in order to guarantee higher animal welfare standards were adhered to during production.

4. Source down and feathers from low-risk countries

Due to a lack of information about production systems for geese and ducks in China, it is difficult to advise regarding less-risky production countries. However, it is assumed that since animal welfare legislation exists in European countries (although not always effectively enforced), the risks associated with European production are less in European Union countries than in China.

To avoid the risk of force-feeding, down and feathers can be sourced from countries where this practice is banned (the practice is for example not banned in France, Hungary, Bulgaria, Belgium, Spain, Canada, the US and China). ■



Fur

Fur from wild animals

Animal welfare concerns

Farmed fur

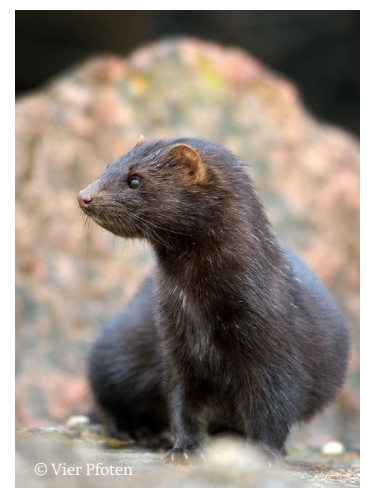
- Fur animals are not domesticated so they are not adapted to humans and captivity. Some minks for example, still exhibit fearful and aggressive behaviour towards people, despite selective breeding for tameness.
- Circumstances on fur farms are completely different from natural conditions, leading to physiological, psychological and behavioural problems.
- On fur farms the animals are kept in wire mesh cages that do not meet the basic needs of the animals. The animals cannot exhibit natural behaviour, leading to physical, psychological and behavioural problems as well as increased infant mortality.
- The culmination of urine and faeces under the cages can lead to social stress, as many of these animals are predatory species using their excrements to mark their territories in the wild and have a highly developed sense of smell.
- Stereotypical behaviour (where abnormal, non-functional behaviour is exhibited repeatedly), and 'learned helplessness' where the animal becomes inactive and apathetic, is common on fur farms.
- Self-mutilation such as tail biting can lead to damaged tissues and infections. The lack of enrichment material and a sheltered resting place causes stress and physical and physiological discomfort.
- In the case of polar foxes, selective breeding has caused extreme overweight, negatively impacting health.
- Artificial insemination where a detector is used to measure heat in females, and sperm is collected from males, can be painful and can lead to stress, disease and injuries
- Killing by electrocution or gasification is painful and can cause fear and stress.

Wild-caught fur

- For fur animals caught in the wild, animal welfare issues are related to the trapping method.
- As live traps are usually not regularly checked in short timeframes, there is a high risk of hunger, thirst, physical discomfort, pain and stress; some animals die of dehydration, blood loss or hypothermia.
- Leg-hold traps lead to injuries, and animals can also get injured while trying to free themselves. If the animal has not died yet in the leg-hold trap, it is often clubbed to death or suffocated (a bullet may damage the pelt).
- Lethal traps often do not lead to an immediate death; causing pain and stress in the last moments before death.
- An unwanted side-effect of trapping fur animals, is that other animals can also be caught in these traps including protected species and companion animals.

Fur is derived from many species, such as foxes, beavers, coyotes, raccoons, raccoon dogs, chinchillas, muskrats and minks. Fur can stem from animals kept in farms, animals caught in the wild, or can be a by-product of animals kept for meat production.

Some animals kept primarily for meat, such as rabbits, also produce fur. Farmed fur animals are a.o. foxes, raccoon dogs and minks. Fur from wild animals usually comes from beavers, coyotes, lynx, otters, martens, minks, foxes, raccoon dogs and muskrats.



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Worldwide production

Farmed fur

Worldwide at least 100 million pelts were produced in 2016; out of which 41,5 million stemming from European countries. The main production countries are China, Denmark, Poland and Finland.

Many European countries have installed a ban on fur farming, often on moral grounds: the Netherlands, UK, Austria, Hungary, Slovenia, Croatia, Macedonia and Belgium. In the Netherlands, the keeping and killing of animals solely for the purpose of using their pelts is considered morally unacceptable. In Switzerland and Germany increased demands regarding keeping standards have led to an end of fur farming due to economical reasons.

Wild-caught fur

It is assumed that most wild caught fur comes from the United States, Canada, Russia, the European Union and China. Exact numbers are unknown. The exact methods used in China are unknown.

Using the leg-hold trap is prohibited in over 90 countries.

Solutions

These solutions apply to fur from fur farms and wild-caught fur.

There are no readymade solutions for avoiding or minimising the risks from wild-caught fur; there are no certification systems, and it is unclear whether the risks are lower in certain production countries.

During the production of farmed fur and wild caught fur very high animal welfare risks occur, and these risks can be avoided by not using fur.

1. Apply certification systems

The [WelFur](#) certification system, governed by Fur Europe, is used for European mink- and fox farms. The certification does not cover some of the crucial animal welfare aspects, and an extremely low score on some criteria can easily be compensated by scoring high on other criteria.

The Origin Assured label, governed by the International Fur Federation, only assures that the pelts are from a certain, approved species, from a country which has legislation in place regarding keeping of fur animals. It does not guarantee that the legislation and enforcement thereof is adequate. Hence it does not provide guarantees about the level of welfare on a specific fur farm.

There are three certification systems for fur which is being traded through the Finnish auction house Saga Furs: Profur, Saga and FarmSert, with similar animal welfare criteria. The criteria do not differ much from the (Finnish) legislation. Profur criteria change regularly and are not publicly available. The certificate Saga is based upon Profur, and is used by the auction house to trace the provenance of a pelt to a particular fur company. FarmSert is an initiative of the Norwegian association for fur farming (Norges Pelsdyrslag).

The assessment protocols and methodology for scoring for Saga and FarmSert could not be found online.

Most certification schemes were installed by the fur industry itself, or institutions representing the fur industry. They have been criticised for not giving acceptable guarantees and being misleading.

2. Choose alternatives

Companies may choose to re-use fur from old garment items. No additional animals need to be kept or killed then.

Companies may also choose to use fake fur, or 'faux fur'. Faux fur is made of synthetic fibres.

3. Value chain collaboration

Companies could undertake due diligence and collaborate in their value chain in order to minimise certain animal welfare risks.

Many brands have excluded the use of fur, and have signed up to the [Fur Free Retailer Program](#). This international initiative of the Fur Free Alliance serves to inform consumers about a companies' no-fur policy.

4. Source leather from low-risk countries

In the case of farmed fur, it is difficult to identify low-risk countries; while keeping conditions are more or less the same in production countries. China has no legislation governing animal welfare during fur production, and it appears that the risk of animal suffering during fur production in China is extremely high.

Some EU countries still allow for fur farming, and follow the EU Council Directive 98/58/EC. Enforcement authorities (and animal welfare organisations) have found many shortcomings in these countries' fur farming companies.

Many European countries have banned fur farming all together. ■



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Bovine leather

Leather from cows and buffaloes

Animal welfare concerns

- In intensive production systems with high stocking densities, cattle cannot exhibit certain natural behaviour such as walking around, grazing freely, extending their legs and interacting with other animals.
- Limited availability of shade and shelter can lead to heat stress as cattle do not have an efficient thermoregulation system.
- In dairy production, the abrupt separation of calves from their mothers (often right after birth) can lead to stress and also does not allow for a cow-calf relationship.
- Dairy and beef cattle are subject to mutilations (like disbudding, dehorning, tail docking, tooth clipping, branding and ear tagging) and castration. These interventions are often done without anaesthesia and pain relief, leading to pain, stress and sometimes infections.
- The transport of cattle over long distances, without the provision of food and water can lead to hunger and thirst. Rough handling is another concern.
- Slaughtering cattle – from both dairy as well as beef production – is of concern as appropriate and correctly executed handling and stunning does not take place in many slaughterhouses which causes immense pain and stress to the animals.
- Sometimes there is not enough water or feed for the animals due to droughts or neglect.
- Producing unnatural high amounts of milk can lead to stomach cramps in cows, and udder infections are common.
- In intensive systems with fully slatted floors, limited space is available for the animals and no outdoor access is provided.
- In feedlots (common in the USA or Australia), a limited availability of shade and shelter can cause immense physical discomfort.
- The highly concentrated feed provided in intensive systems is not suitable for cattle (being ruminants), causing digestive problems and disease.

Most leather comes from cattle (65%), sheep (15%), pigs (11%) and goats (9%). Besides the hides, the meat of these animals is often used, which makes leather a co- or by-product from food production.

Less than 0,2% of leather produced stems from other species (a.o. **snakes, crocodiles**, lizards and ostriches).

Cattle belong to the *Bovinae*, a group of species including cows, buffaloes, bison, yaks and antelopes.

The majority of bovine leather comes from domesticated cattle, while in some countries like India and Italy, **buffaloes** are also kept and used for leather production.



Bob Pool / Shutterstock.com

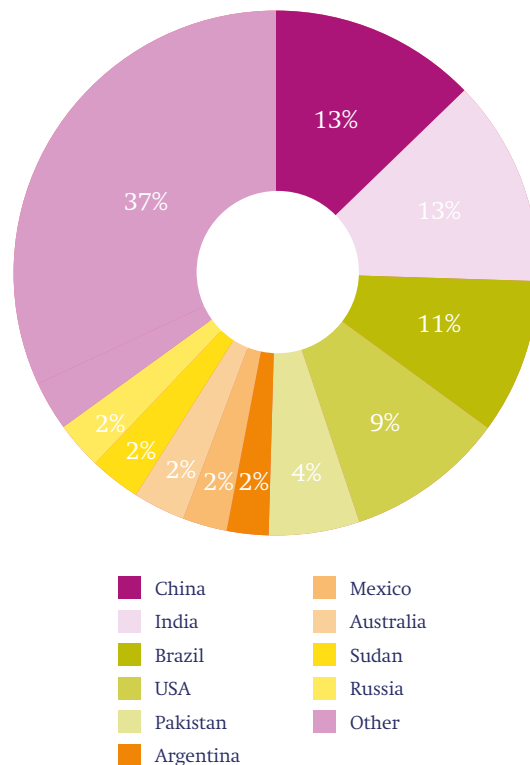


Napaphat Kaewsanchai / Shutterstock.com

Worldwide production

Worldwide approximately 1.675 billion cattle were kept in 2015. Every year approximately 360 million beef hides are being produced. The main production countries are China, India, Brazil and the USA.

Provenance cattle hides



Solutions

1. Apply certification systems

At this moment, there are no large-scale leather certification systems with regard to animal welfare.

2. Choose alternatives

Companies may choose to use less leather or alternative textiles to substitute conventional leather:

- recycled leather
- artificial leather (skai or faux leather)
- Pinatex, non-woven made from pineapple fibres
- Amadou, non-woven made from amadou mushrooms
- Materials made from cork, seaweed (ocean leather), fruit and orange peels
- Cultivated leather - designed and grown from animal free collagen, which can be combined with other natural or manmade materials

3. Value chain collaboration

Companies may choose to join initiatives which intend to increase transparency and traceability of leather, in order to be able to identify and address animal welfare risks in the source countries:

- [Responsible Leather Round Table](#) is working on the development of the Responsible Leather Assessment tool (RLA), which will aim to set a global benchmark for minimum best practices, and will allow brands sourcing leather to send clear demand signals to their supply chains.
- [Leather Working Group](#)

Companies may want to look into various tools and methods in order to increase leather traceability and ensure sourcing in countries with low animal welfare risks:

- [Tannery of the Future](#)
- [Smart Sourcing Leather Workshop](#)
- [Report by MVO Nederland](#)

4. Source leather from low-risk countries

Companies may choose to source leather from other countries with good animal husbandry practices, transport and slaughter rules and legislation (and efficient enforcement thereof). ■



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Exotic leather

Leather from crocodiles and snakes

Animal welfare concerns

There are generally three keeping systems: captive breeding (crocodile farms), ranching - eggs and juveniles are collected from the wild and reared in captivity - and wild harvesting where animals are directly taken from the wild.

- In keeping systems crocodilians are kept in groups, often in a much higher density than is the case with wild populations. This limits normal behaviour such as walking and swimming, which in turn can lead to stress, aggressive behaviour, injuries, diseases, growth deviations, overweight and lethargy.
- The high animal density also increases the risks of disease and can increase the body temperature of the animals, weakening the immune system.
- Crocodilians are often killed around three years of age. Different methods are being used for killing and sometimes stunning is used. Stunning and killing methods are not always effective, leading to the situation that the animals are being skinned alive and conscious.
- Wild caught snakes are often kept for days or even weeks in a bag or wooden crate without food or water, leading to hunger, thirst, physical discomfort, fear and stress, and the inability to carry out natural behaviour.
- In captivity snakes are kept in wooden or metal cages, which do not allow the carrying out of natural behaviour and can cause stress.
- Respiratory tract infections are also common because the animals cannot sufficiently regulate their body temperature in captivity.
- Snakes are being killed by a blow to the head, decapitation or suffocation. These methods are not always effective for making the animal unconscious and ensuring a rapid death.

Leather can come from cattle (65%), sheep (15%), pigs (11%) and goats (9%). Besides the hides, the meat of these animals is used, which makes leather a co- or by-product from food production.

Less than 0,2% of leather produced stems from other species (a.o. **snakes**, **crocodiles**, lizards and ostriches).

Crocodiles are mainly kept for their skins, and the meat is only a byproduct. The meat is mostly consumed in the Far East.

Snakes (*Serpentes*) are mainly kept for the production of exotic skins, although some products of snakes are also being used for therapeutic purposes (developing medicine). The meat is mostly consumed in the Far East.

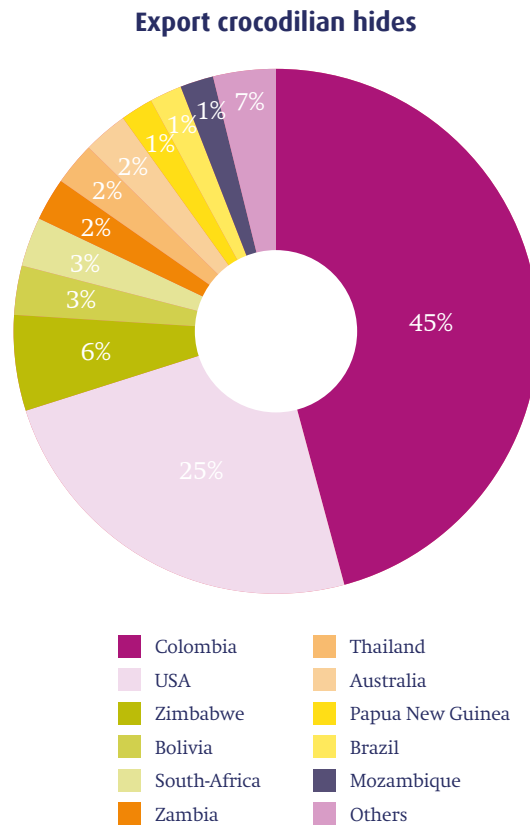


Worldwide production

An international convention governing international trade of endangered species, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), regulates the trade in exotic skins of endangered species.

Crocodiles

There are no figures regarding local production. Official CITES data (only covering international, legal trade) from 2013 show that Colombia is one of the largest exporters of hides (from the spectacle caiman, *Caiman crocodiles fuscus*) with 856.000 skins. The US exported 481.000 skins of the American alligator (*Alligator mississippiensis*) that year. In African countries it is the de Nile crocodile (*Crocodylus niloticus*) which is mostly kept and exported.



Snakes

There are no figures regarding local production. Official CITES data (only covering international, legal trade) is available in the [CITES Trade Database](#). There is much evidence of a large scale illegal trade.

Most skins are being produced in South-East Asia, but skins are also being produced in Africa and South America. Most legally reported *Python reticulatus* skins are from Indonesia and Malaysia where animals are caught in the wild. In Vietnam snakes are being bred and reared in captivity.

Smuggling from one country to another in order to enter the legal international trade is a widespread practice, and there is much evidence for such large scale trade from Indonesia to Malaysia and Singapore.

The EU has put a temporary import ban on the trade of *Python reticulatus* skins from West-Malaysia because of concerns about the legality of trade and the treatment of the animals.

Solutions

At this moment there are no options to mitigate the high risks involved in the production of leather from crocodiles and snakes, as no certification systems exist. Besides, there are no production countries where the risk of violation of animal welfare is relatively low.

Companies may choose to undertake due diligence in their value chain and engage in collaboration with value chain partners in order to try to minimise the risks.

The specific risks associated with leather from crocodiles and snakes can be avoided by choosing leather from other (domesticated, used for meat production) species. Animal welfare risks can be avoided by not using exotic leather and choosing non-animal alternatives. ■



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Pig leather

Leather from pigs

Animal welfare concerns

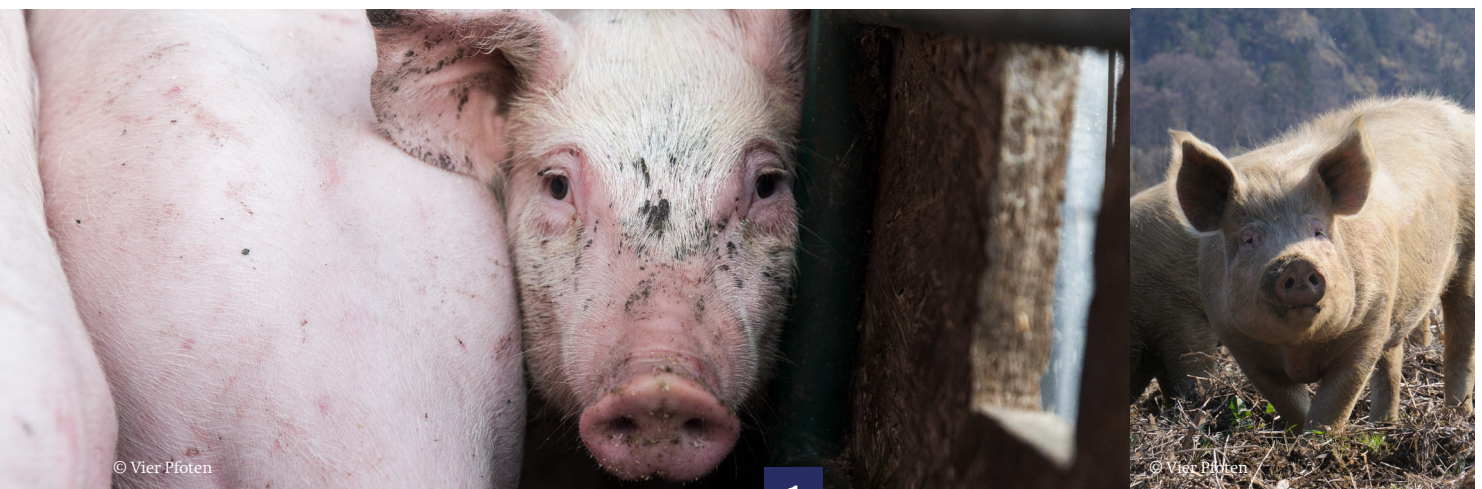
- In many countries in the world it is common for pregnant sows to be kept in “gestation crates” (also known as “sow stalls”) for their entire 16-week gestation period. A gestation crate is a metal crate or cage, usually with a bare, slatted floor, which is so narrow that the sow cannot turn around and can only stand up and lie down with difficulty. Because sows are highly limited in their movement, natural behaviour such as nesting behaviour can not be exhibited, causing stress, physical and physiological discomfort.
- Mutilations such as castration (done to guard against “boar taint,” induced by hormones at puberty that sometimes impart an odour and taste to their meat which many people do not like), tail docking and tooth clipping are often carried out without anaesthesia and pain relief, and lead to pain, stress and health problems.
- Pigs are mostly kept in intensive farming systems with especially high stocking densities. The lack of possibilities to hide or avoid conspecifics leads to aggression between the animals, and injury.
- In this barren environment there is no opportunity for these curious and highly active animals to engage in exploratory and foraging behaviour. This leads to stress, injury and abnormal behaviour such as tail biting. This problem is especially severe for sows in stalls as mentioned above; the social enrichment of interacting with conspecifics is denied. In sows stereotypies like bar biting or chewing is often observed.
- In some production countries and in between European countries (such as from the Netherlands to Italy) pigs are transported over long distances in cramped, uninsulated and unventilated trucks and train carriages, leading to stress, pain, injuries, hunger and thirst.
- During slaughtering main concerns are rude handling, inadequate stunning (failure stunning) or CO₂ stunning, the latter causing enormous stress. Significant numbers of pigs die each year in transport and in lairage (holding pens) at slaughterhouses as a result of stress.

Most leather comes from cattle (65%), sheep (15%), pigs (11%) and goats (9%). Besides the hides, the meat of these animals is used, which makes leather a co- or by-product from food production.

In garments and shoes, pig leather is usually referred to as ‘Genuine leather.’ Pigskin leather is also sometimes referred to as ‘Berkshire’ leather.

Less than 0,2% of leather produced stems from other species (a.o. **snakes**, **crocodiles**, lizards and ostriches).

Pigs also called ‘hogs’ in pig farming belong to the *Suidae*.



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Worldwide production

Worldwide approximately 784.83 million pigs were held in 2017. The main production countries are China (700 million), the EU (250 million), Brazil, the US and Russia, supplying 86% of the total production worldwide.

Solutions

1. Apply certification systems

At this moment, there are no large-scale leather certification systems with regard to animal welfare.

2. Choose alternatives

Companies may choose to reduce leather and use alternative textiles to substitute conventional leather:

- recycled leather
- artificial leather (skai or faux leather)
- Pinatex, non-woven made from pineapple fibres
- Amadou, non-woven made from amadou mushrooms
- Materials made from cork, seaweed (ocean leather), fruit and orange peels
- Cultivated leather - designed and grown from animal free collagen, which can be combined with other natural or manmade materials

3. Value chain collaboration

Companies may choose to join initiatives which intend to increase transparency and traceability of leather, in order to be able to identify and address animal welfare risks in the source countries:

- [Responsible Leather Round Table](#) is working on the development of the Responsible Leather Assessment tool (RLA), which will aim to set a global benchmark for minimum best practices, and will allow brands sourcing leather to send clear demand signals to their supply chains.
- [Leather Working Group](#)

Companies may want to look into various tools and methods in order to increase leather traceability and ensure sourcing in countries with low animal welfare risks:

[Tannery of the Future](#)

[Smart Sourcing Leather Workshop](#)

[Report by MVO Nederland](#)

4. Source leather from low-risk countries

Companies may choose to source leather from countries with good animal husbandry practices, transport and slaughter rules and legislation (and efficient enforcement thereof). ■



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Sheep leather

Leather from sheep

Animal welfare concerns

- Most sheep live in extensive production systems and stay outdoors permanently. A lack of shelter can cause physical discomfort in areas with extreme weather; especially lambs are susceptible to weather-induced disease and discomfort.
- In extensive keeping systems there is a risk of malnutrition because of the low nutritional value of the grass.
- In Australia, 12% of sheep live permanently inside barns - the special feed they receive ensures the production of a finer wool type. Sheep normally graze approximately 50% of the day; sheep in barns are not able to exhibit this natural behaviour, leading to stress.
- Sheep kept in individual compartments can experience stress due to lack of interaction with companions.
- Mutilations (f.e. tail docking, castration, mulesing, etc.) done without anaesthesia are very painful, and can cause infections. Lambs can experience pain many days after they have been castrated.
- In the case of merino sheep the controversial 'mulesing' is being applied - the process of removing folds of skin from the tail area of a sheep, intended to reduce fly strike. Because of the wrinkles and folds in the skin of merino sheep urine and manure sticks to the behind of the sheep, attracting a parasitic fly (*Lucilia cuprina*). The larvae of the fly eat through the sheep skin, leading to myiasis, which can be fatal for the animal. Mulesing is most often done without pain relief, and takes place almost exclusively in Australia.
- There's a risk of injuries and stress during shearing.
- The transport of sheep by boat from Australia to the middle-east for slaughter is infamous because of the very poor conditions and high mortality rates on board.
- Slaughtering sheep sometimes takes place without stunning, causing pain and stress. Also, ineffective stunning is of concern.

Most leather comes from cattle (65%), sheep (15%), pigs (11%) and goats (9%). Besides the hides, the meat of these animals is often used, which makes leather a co- or by-product from food production.

Less than 0,2% of leather produced stems from other species (a.o. **snakes, crocodiles**, lizards and ostriches).

Sheep (*Ovis aries*) are kept for the production of wool, meat and dairy.

Besides adult sheep, lambs are also being used for the production of leather. In the case of **shearling** the sheep skin is being tanned with the fleece still on it.



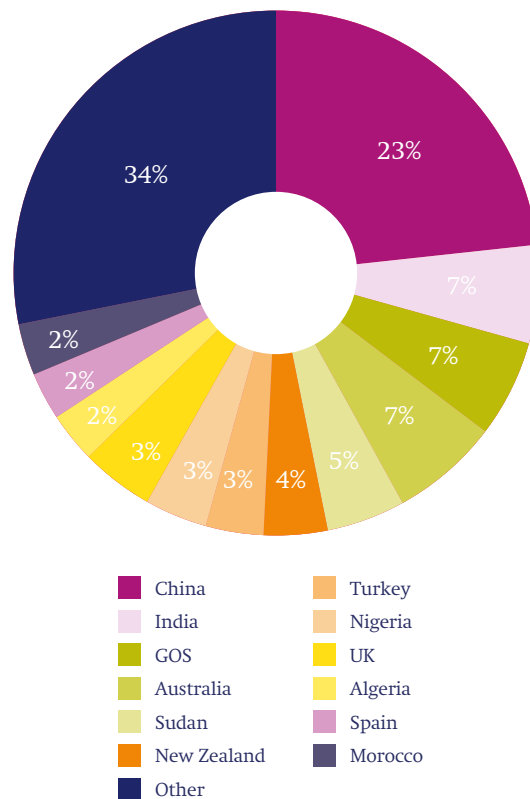
Natalia Deksbakh / Shutterstock.com

Ipek Morel / Shutterstock.com

Worldwide production

Worldwide approximately 1.163 billion sheep were being held in 2015, and yearly 540 million sheep and lamb hides are being produced. The main production countries are China, India, Australia, Sudan and New Zealand.

Provenance sheep skins



Solutions

These solutions apply to cow and sheep leather; measures which can also be valid for other leather from species which are also used for meat production.

1. Apply certification systems

At this moment, there are no large-scale leather certification systems with regard to animal welfare.

2. Choose alternatives

Companies may choose to use alternative textiles to substitute conventional leather:

- recycled leather
- artificial leather (skai or faux leather)
- Pinatex, non-woven made from pineapple fibres
- Amadou, non-woven made from amadou mushrooms
- Materials made from cork, seaweed (ocean leather), fruit and orange peels
- Cultivated leather - designed and grown from animal free collagen, which can be combined with other natural or manmade materials

3. Value chain collaboration

Companies may choose to join initiatives which intend to increase transparency and traceability of leather, in order to be able to identify and address animal welfare risks in the source countries:

- [Responsible Leather Round Table](#) working on the development of the Responsible Leather Assessment tool (RLA), which will aim to set a global benchmark for minimum best practices, and will allow brands sourcing leather to send clear demand signals to their supply chains.
- [Leather Working Group](#)

Companies may want to look into various tools and methods in order to increase leather traceability and ensure sourcing in countries with low animal welfare risks:

- [Tannery of the Future](#)
- [Smart Sourcing Leather Workshop](#)
- [Report by MVO Nederland](#)

4. Source leather from low-risk countries

The risk of mulesing can be avoided by not sourcing sheep leather originating from Australia. The risks around sheep slaughter can be avoided by not sourcing from India.

Companies may also choose to source leather from other countries with good animal husbandry practices, transport and slaughter rules and legislation (and efficient enforcement thereof). ■



Silk

Silk from farmed and wild silkworms

Animal welfare concerns

- In silk keeping systems, the silkworms can become weak or even die as a consequence of the ingestion of fertiliser and pesticides used in growing the mulberry trees which are used as feed.
- The placing of nets to prevent the silk moths from flying off, limits the expression of natural behavior.
- Silk worms possibly experience pain when their cocoon is dried in the sun, is exposed to hot water or steam or is being frozen, but up till now this has not been scientifically proven due to lack of appropriate scientific methods.
- Freezing the cocoons (currently the most commonly used practice in China) does not lead to the death of the silkworms, but rather leads to a state of unconsciousness. After harvesting the silk, the silkworms can be eaten.
- Due to genetic selection in silk worms, animals mutate and the resulting moths without wings ('flugellos') can not exhibit natural behavior.

Silk is produced by larvae of various types of insects to make a cocoon. Spiders also produce silk.

Although there are 400-500 species of silkworms, most silk comes from the mulberry silkworm, *Bombyx mori*.

Tussah, Eri and Muga silk comes from other species of silkworm, mostly from India.

Sericulture, breeding silkworms for the production of raw silk, has been practiced in China for at least 5,000 years.

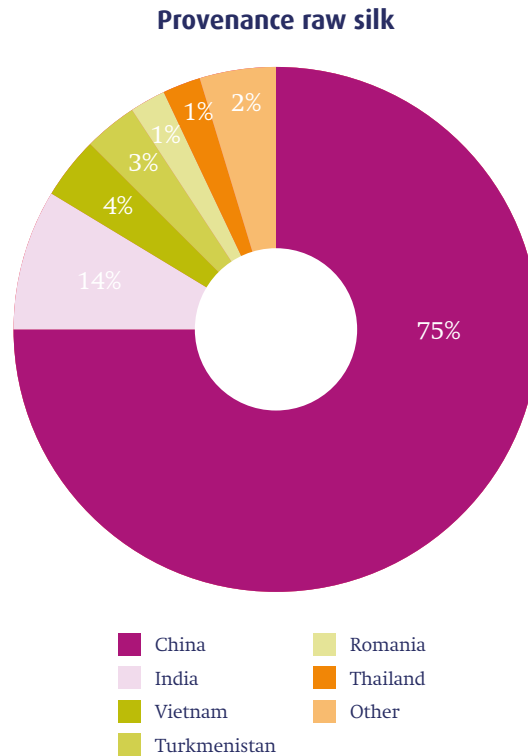
Silk can also be collected from the wild. In that case, empty cocoons are collected.

The silk industry also has several by-products such as the pupa from the cocoons which are consumed in some countries as food.



Worldwide production

Worldwide approximately 168 million kilograms of raw silk was produced in 2014; this represents 800 billion silkworms. Most important silk producing countries are China (75%) and India (14%), followed by Vietnam, Turkmenistan, Rumania and Thailand. Insects such as silk worms are usually not included in animal welfare legislation. China has no general animal welfare legislation, and the Prevention of Cruelty to Animals Act in India does not apply to insects and spiders.



Solutions

1. Source silk from low-risk countries.

It is unclear whether the risks are lower in certain countries. The breeding methods are similar in the various production countries, but there are differences in the ways the silkworms are being killed and conserved. It is unclear which methods lead to the least animal suffering.

2. Apply certification systems

There are no certification systems for silk specifically covering animal welfare. Some types of silk are associated with more animal welfare (see below).

3. Choose alternatives

There are types of silk with alternative keeping or harvesting systems, and consequently lower animal welfare risks.

- With Ahimsa (also called Eri silk or peace silk), the silk is harvested after the moth has left the cocoon. Ahimsa most often comes from the species *Philosamia ricini*, a species leaving a small hole in the cocoon where the moth can emerge without damaging the cocoon for silk production. However, most of the 500 eggs that each individual female moth lays need to be killed, as it is unattainable to keep and feed such large numbers of animals.
- Wild silk is harvested from cocoons in the wild, often after the moth has left the cocoon. Tasar or Tussar and Muga silk are such types of silk. Eri silk is sometimes also harvested from wild *Philosamia ricini* silkworms.

- During the production of organic silk, no fertilizer or pesticides is used for growing the mulberry trees.
- Bourette/tsumugi silk is made of the leftovers of the cocoon, after harvesting the outer threads of silk – by using this type of silk, less new silk moths need to be bred, kept and killed.

Other textiles to replace silk are rayon, lyocell (tencel), nylon, polyester and mercerized cotton

4. Value chain collaboration

Companies may choose to undertake due diligence and collaborate in their value chain in order to decrease animal welfare risks. ■



KAMONRAT / © 123RF.com

Goat wool

Cashmere, Mohair and other goat wool

Animal welfare concerns

- Angora goats can be vulnerable to cold after shearing, in contrary to cashmere goats who have an isolating double coat.
- A lack of shelter can lead to physical discomfort and disease with angora goats.
- Dehorning, castration and other mutilations are often carried out without anaesthesia or pain relief, leading to pain and stress.
- Removing horns is especially problematic with goats, as this could lead to permanent pain and even fatal brain damage.
- Shearing is in general stressful for goats. Cashmere goats are often combed instead of sheared. Both methods can cause pain, wounds and stress.
- A lack of food and water during transport can lead to hunger, thirst and dehydration.
- In large slaughterhouses animals are often stunned before slaughter; this is not always the case with halal and kosher slaughter methods.

Solutions

There are no ready-made solutions for decreasing animal welfare risks for wool from goats. Companies are advised to undertake due diligence and to collaborate in the value chain in order to minimise animal welfare risks in their value chain, or search for cashmere and mohair sources considering animal welfare during production.

The [Sustainable Fiber Alliance](#) is working to establish and promote a global sustainability standard for cashmere production in order to preserve and restore grasslands, ensure animal welfare and secure livelihoods.

The animal welfare risks around cashmere and mohair can be avoided by choosing alternative (non-animal) textiles. ■

Wool can come from sheep, goats, rabbits and many other species.

Goats (*Capra hircus*) are mostly kept for the dairy and meat production, but their undercoat is suitable for the production of wool.

There are different breeds that produce a special quality of undercoat hair – the wool – like the pugar goat, the nigor goat and different breeds of cashmere and angora. In the case of cashmere goats (**cashmere**) and the angora goat (**mohair**) the animals are predominantly kept for their wool.



lakhesis / © 123RF.com

Angora wool

Wool from rabbits

Animal welfare concerns

- Angora rabbits are housed individually in small cages. Rabbits have only been recently domesticated (200-300 years) and express similar behaviour to wild rabbits – digging, running, jumping etc. – this is not possible in these keeping systems.
- Besides that, the animals need contact with conspecifics, and lack thereof leads to stress and apathy.
- Steel cages can lead to foot ulcers.
- Hairs are plucked or shorn every three months, in a period when the hairs ‘ripen’ but do not fall out yet. Plucking by hand leads to extreme pain and stress, and can lead to tears in the skin. Shearing also poses a risk of pain, stress and injuries.
- Loss of their coat changes the animals’ thermoregulation abilities and makes the rabbits susceptible to cold - posing a risk to contract respiratory tract infections.
- Angora rabbits are slaughtered at the age of 2-5 years. When this happens without stunning there’s a risk of pain and stress.
- Male rabbits are often killed after birth, because they produce 20-30% less wool than the females.

Solutions

There are large animal welfare risks around angora wool and it is unclear whether these risks are lower in some countries or production systems. Companies are therefore advised not to use angora.

Companies are advised to undertake due diligence and to collaborate with value chain partners in order to minimise animal welfare risks in their value chain, or search for angora sources considering animal welfare during production.

The animal welfare risks around angora can be avoided by choosing alternative (non-animal) textiles. ■

Wool can come from sheep, goats, rabbits and many other species.

Angora rabbits

originate in Turkey, but the breed has been selectively bred, and the rabbit now used for wool production does not live in nature.

There are many varieties; the French, English, German, Satin and Giant angora are being kept for the production of angora wool.

Angora rabbits are also used in the meat industry, but their wool is often the main product.



Sheep wool

Merino and other sheep wool

Animal welfare concerns

- Most sheep live in extensive production systems, and stay outdoors permanently. A lack of shelter can cause physical discomfort in areas with extreme weather conditions; especially lambs are susceptible to weather-induced disease and discomfort.
- Sheep kept indoors, in individual compartments can experience stress due to lack of interaction with companions.
- Mutilations (f.e. tail docking, castration, mulesing) done without anaesthesia lead to pain, and can cause infections. Lambs can experience pain many days after they have been castrated.
- In the case of merino sheep the controversial ‘mulesing’ is being applied - the process of removing folds of skin from the tail area of a sheep, intended to reduce fly strike. Because of the wrinkles and folds in the skin of merino sheep urine and manure sticks to the behind of the sheep, attracting a parasitic fly (*Lucilia cuprina*). The larvae of the fly eat through the sheep skin, leading to myiasis, which can be fatal for the animal. Mulesing is most often done without pain relief, and takes place almost exclusively in Australia.
- There's a risk of injuries and stress during shearing.
- The transport of sheep by boat from Australia to the middle-east for slaughter is infamous because of the very poor conditions and high mortality rates on board.
- Slaughtering sheep sometimes takes place without stunning, causing pain and stress. Also, ineffective stunning is of concern.

Wool can come from sheep, goats, rabbits and many other species.

Sheep (*Ovis aries*) are kept for the production of wool, meat and dairy.

Especially the **Merino** breed is used for wool, next to breeds like Rambouillet, Blue Faced Leicester en Corriedale.

Besides adult sheep, lambs are also being used for the production of leather. In the case of **shearling** the sheep skin is being tanned with the fleece still on it.



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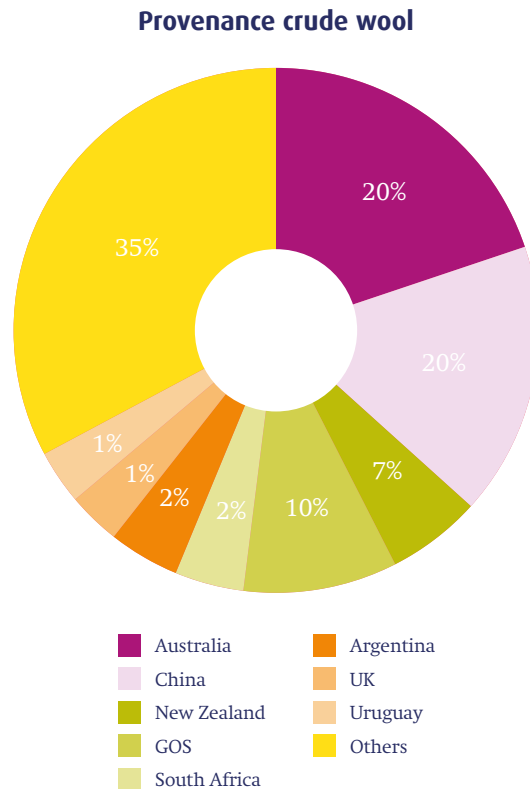
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Worldwide production

In 2015, Australia (20%) and China (20%) were the biggest wool-producing countries, followed by New-Zealand (7%). China has the largest number of sheep, and also imports around 75% of the wool from Australia for further processing.



Solutions

The solutions below apply to wool from sheep.

1. Apply certification systems

There are various certification systems for wool, with some consideration of animal welfare concerns.

- The [Responsible Wool Standard](#) has relatively comprehensive provisions regarding animal welfare; sheep are required to be allowed outdoor grazing during the grazing season, there are criteria regarding management, feed, infrastructure, health, breeding, mutilations, shearing, the behaviour and slaughter and the treatment of sheep. Mulesing is forbidden under this standard. The standard is currently only applicable to sheep wool, but will soon be extended to Mohair. Traceability is assured from farm to final garment.
- The [Global Organic Textile Standard](#) uses national standards for organic agriculture as approved by the International Federation of Organic Agriculture Movements (IFOAM) – and these standards vary considerably per country with regard to animal welfare. Criteria for production of Organic wool vary per country; animal welfare criteria are almost always applicable. In Europe, [Council Regulation \(EC\) No 834/2007](#) of 28 June 2007 on organic production and labelling of organic products applies, demanding that animals in principle can live outdoors, that the animal density should not be too high, and minimising mutilations, suffering of animals and the duration of transport.
- Companies sourcing GOTS wool are advised to check the relevant national organic standard in order to assess the animal welfare criteria which were applied in the production country
- The term ‘organic’ only applies to wool production, not to the other production processes with wool.
- [ZQ Merino](#) is an accreditation programme of the New Zealand Merino Company and guarantees that wool comes from accredited sheep companies who respect the Five Freedoms and do not mulesing their sheep. ZQ Merino is traceable along the value chain. Another accreditation programme is ZQ Premium Wool. Both types of wool are also considered as RWS wool.

- [New Merino](#) is a verification standard as well as a service for stakeholders, that want to buy wool from non-mulesed sheep. The animal welfare criteria are based on the RWS. Traceability of the wool is assured from the sheep farm to the spinning mills.

There are a number of wool certification labels that only concern the quality of the wool and do not include animal welfare or other sustainability criteria (f.e. Woolmark and Dumfries Wool Declaration). Companies are advised to check the label guidelines and assess its criteria before sourcing

2. Choose alternatives

Companies may choose to use alternative textiles to substitute conventional wool:

- Recycled wool is reclaimed from textile waste and unwanted or discarded garments.
- Acrylic
- Fleece
- Cotton

3. Value chain collaboration

Companies may choose to join initiatives which intend to increase transparency and traceability of wool, in order to be able to identify and address animal welfare risks in the source countries. Companies may also develop and implement their own system of traceability and animal welfare standard.

4. Source sheep wool from low-risk countries

Companies may choose to source leather from other countries with good animal husbandry practices, transport and slaughter rules and legislation (and efficient enforcement thereof).

When comparing the four main production countries, New Zealand has the least severe risk of animal welfare issues occurring during production. ■

