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Died in the Wool

Those who wear wool claim to do so because of its warmth and ability to maintain heat. For wool to be available to humans, it must be taken from animals. Millions of sheep die from exposure to the cold weather every year as a direct result of shearing.

What is wool and where does it come from?

Wool is the largest animal fibre industry in the world (Schlink, 2003) and yet represents only three per cent of global fibre production. There are over a thousand million sheep in the world. In 2006, the UK produced 28,647 tonnes of raw wool (British Wool Marketing Board, 2006). In 2008, over 16.5 million sheep and lambs were slaughtered in the UK (Defra Statistics, 2009).

Wool is a crimped, warm fibre that is made from the fleece of sheep and other animals such as goats, rabbits and llamas. Wool is a multi billion dollar world industry. Australia holds the largest market share of raw wool production and exports a large percentage of it to China where it is manufactured into consumer goods before being exported across the world. It is a textile often used for jumpers, carpets and winter coats.

Subsidies

In 2004, the UK government paid £262 million in subsidies to British sheep farmers (UK Agriculture, n.d.). Farming subsidies are paid for using tax payers' money. Up until 2004, subsidies were paid to farmers per animal, for example each farmer would receive around £13 per sheep. In 2005, the procedure changed and now farmers are paid subsidies based on stewardship of the land. Sheep farmers are likely to have benefited from this change due to the amount of land owned (Arnold, 2004).

The Lives of Sheep

The seemingly idyllic scene of a ewe and her lambs grazing in a field is misleading; the sheep are not in caged housing like battery hens, so many people mistakenly believe them to be free. In fact, sheep live their entire lives under human control. Little thought however is paid to their welfare; many are neglected and suffer painful illnesses. Once their fleece production declines, or in preparation for the Easter lamb market, they will be slaughtered.

Pregnant sheep can suffer malnutrition, especially if they are carrying more than one lamb. Seventy five per cent of the lamb's growth occurs during the last two months of pregnancy, this means that the ewe needs to eat more during this time to facilitate the growth and remain healthy (Anderson, n.d.). If the ewe is undernourished during this stage of her pregnancy it could have negative effects on her milk production and the lamb's birth weight, and can decrease the lamb's chances of survival.

Lambing

The UK sheep industry loses large numbers of newborn lambs each year; around 15 per cent of all lambs born annually die (Defra, 2004). Most of these deaths occur around lambing time. The number of lost lambs increase further when you consider those lost through abortion and stillbirth.

Abortion is one of the major causes of economic loss to the farming industry. In any flock, around two per cent of ewes will abort or produce stillborn lambs due to genetic problems, illness, injury or nutritional problems. However, ewes can also suffer infectious abortions. When this occurs, 40 to 50 per cent of the flock will abort (Colston, 2008). A number of infectious agents have been identified as causes, some of which can be fatal to sheep and all of which can cause illness in humans. The most devastating of these infections, is the enzootic abortion. Ewes catch the infection at lambing time from contact with aborted materials, but will not abort until the following year. Once infected, ewes remain a carrier for life meaning that, although she may give birth to healthy lambs in



A newborn lamb in the snow in Scotland

the future, she will continue to spread the infection to other ewes. The female lamb of a carrier ewe will abort her first pregnancy and remain infected for life.

It is not uncommon for ewes suffering from chlamydial abortion to give birth to dead and decomposing lambs. Meanwhile, live lambs are often born weak and unable to suckle, making them susceptible to various illnesses.

Sheep breed once a year. Coming into season in the winter ensures that lambs are born during the spring months when the weather is warm. However, farmers attracted by the high prices of having the first lambs of the season encourage their sheep to breed sooner meaning that many lambs die of exposure to extreme weather conditions. There are many ways to ensure lambing occurs earlier in the year, including selective breeding, controlled lighting conditions and hormone manipulation.

Lambing can be a difficult time due to the extensive number of things which can go wrong. A common problem faced by sheep farmers is that the lambs are too big for the ewe's pelvis. Farmers may have to assist in such circumstances and may need to help pull the lamb free. A difficult birth can be fatal to both the lamb and the ewe. The lamb may suffer spinal lesions or haemorrhaging due to the long delivery. Ewes giving birth to their first lamb are most likely to experience a difficult labour.

Selective breeding is also used to ensure sheep give birth to twins, or even triplets, rather than one lamb; this increases productivity and the farmer's profits. Ewes only have two teats from which to feed their young,

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therefore in the instance of triplets, one lamb will be rejected. Cross-fostering (relying on a different ewe to feed and nurture the extra lamb) is the most cost effective way to ensure the lamb survives. However, the ewe will not feed her foster lamb unless she believes him to be her own. Farmers are advised to wash the orphan lamb to remove the smell of his birth mother, and then cover him in the birth fluids of the foster ewe, who will therefore be tricked into believing the lamb is hers. *Farmers Weekly* magazine recommends removing the foster ewe's own lamb as soon as he is born, and replacing him with the foster lamb, who should be restrained so he cannot get up while the foster ewe licks him clean of birth fluids. After about 20 minutes the original lamb may be returned and the foster lamb's legs released (Long, 2009). By this point it is hoped that a bond will have formed between the foster ewe and lamb. This technique will only work if the foster ewe gave birth to only one lamb.

If a ewe gives birth to two lambs, but one dies, farmers are able to use the skinned lamb foster technique. In this instance, the dead lamb is skinned and his hide is placed over the foster lamb. The hide will only be removed from the foster lamb once he has been accepted by the foster ewe.

For the first few days following the birth, ewes produce milk containing colostrum which is full of antibodies essential for the lamb's survival. It is important that any orphan lambs are fostered in time to receive this important milk. Lambs who fail to receive enough colostrum will be weak, lethargic and unable to maintain an adequate body temperature. Newborn lambs are at risk of diseases including dysentery, *Escherichia Coli* and naval infections due to their weak immune system.

There are many genetic defects which lambs may suffer including jaw deficiency, rectal prolapse, inverted eyelids and skeletal deformities. Although not common, genetic defects do cause a loss of economic value to farmers. Selective breeding may be used to try and prevent genetic problems from continuing amongst the flock.

Hypothermia is responsible for around one million lamb deaths each year in the UK (Dun, 2008). This can be caused by the bad weather when the lamb is born, or it can also be caused by the lamb's inability to feed which will mean he is weak and unable to stay warm. If noticed immediately lambs can be fed colostrum and they will regain strength and survive. If the first signs go unnoticed however, there is little chance of survival and this is why hypothermia is one of the greatest killers of UK lambs.

Lambs

In the UK, male lambs are subjected to castration; a painful procedure to prevent them reaching sexual maturity and undesired breeding or territorial fights which may reduce the quality of the carcass. Elastration (also known as the rubber ring method) is the most common method of castration in the UK. A thick rubber ring is placed around the neck of the scrotum; this obstructs the blood supply and causes atrophy (deterioration) of the scrotum within four to six weeks. A report by the Farm Animal Welfare Council found that "in the absence of effective pain relief, lambs experience considerable pain in the period following application of the ring." They also found that the ring causes considerable pain and distress to the lamb for up to a month after the initial procedure (FAWC, 2008). The report recommended that effective pain relief should be provided for lambs; unfortunately however, this is simply not the case.

Most UK lambs are subjected to tail docking; in the case of male lambs this will usually be carried out at the same time as castration. The industry justifies this practice as a preventative treatment for blowfly strike; interestingly, 80 per cent of UK flocks are affected by blowfly strike each year despite tail docking. The procedure is usually carried out using the elastration (rubber ring) method, similar to castration. The ring is applied to the tail (exactly where differs between farms) and prevents blood flow; after four to six weeks the tail will wither and drop off. This causes pain and stress in the lamb.

Health and disease

Ewes are at risk of mastitis, a painful infection of the udder which becomes hardened and inflamed. Mastitis is easily treated by antibiotics, but can cause lameness



and permanent damage to the udder if left untreated. Mastitis is the major reason for culling sheep in the UK (Moredun, n.d.).

The Department for Environment, Food and Rural Affairs states that: "Lameness is a major health and welfare problem in all sheep producing countries throughout the world ... lameness is one of the most widespread welfare problems in the UK sheep flock." (Defra, 2003). A sheep suffering from lameness is less able to compete for food and will suffer as a result. Scald and footrot are the two most common causes of lameness in sheep.

Scald is a painful bacterial infection between the toes of the hoof and can lead to footrot if left untreated. Footrot occurs when more bacteria interacts with the already infected hoof area; it is highly contagious and can spread quickly amongst the flock. Wet ground conditions, such as muddy grass or damp housing, allows bacteria to flourish which can lead to these infections. Footrot spreads easily under poor conditions, mismanagement and poor welfare. There are various treatments including chemical foot baths and antibiotics. Defra recommends: "Those that do not respond to repeated antibiotic treatment must be culled from the flock." (Defra, 2003)

Contagious Ovine Digital Dermatitis (CODD) is an even more severe strain of footrot which can lead to complete detachment of the hoof. CODD affects fewer sheep than footrot, but is much more serious: "ulceration and separation of the horn proceeds from the coronary band, sometimes leading to shelling of the horn that leaves a bleeding stump of sensitive tissue." (Malone, 2005)

Caseous lymphadenitis (CLA) is a bacterial infection which causes abscesses in the lymph nodes and organs of the animal. It is recommended that infected sheep are culled to avoid the infection spreading.

Sheep are also susceptible to parasitic infections such as worms which live in the digestive system and lay eggs.

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Parasitic worms can spread quickly amongst the flock, especially in moist conditions. Parasitic infections are common amongst intensively farmed flocks. Some parasites have built up resistance to commonly used chemical treatments.

The UK has an increasing problem with sheep scab, a highly contagious skin condition caused by an allergic reaction to mites. The sheep suffer great irritation and scabs form on their skin; they will repeatedly scratch themselves and rub up against fences and each other (thus spreading the infection) and can sometimes be seen pulling their own fleece out. In extreme cases the sheep will be left mainly bald with lots of bloody scabs on their body. Sheep scab can occur all year round and poor biosecurity can be blamed for many cases.

Blowfly strike is a painful condition where maggots eat the flesh of the sheep; this causes immense suffering. Many lambs have their tails docked in an attempt to prevent blowfly strike, however this is often unsuccessful. Each year, 80 per cent of UK flocks will be affected (SCOPS, n.d.). Flies are attracted by wounds, excrement or dead animals. A female fly can lay 250 eggs at any one time; once hatched, the larvae will secrete enzymes which digest the skin tissue. If left untreated, blowfly strike can be fatal.

Sheep can suffer from bluetongue disease, which is carried by certain types of midges and can spread easily. Bluetongue was first recorded in South Africa and has been slowly travelling the globe, arriving in the UK for the first time in 2007. Signs include ocular and nasal discharge, drooling, high body temperature, swelling in the mouth, lameness, fever and lethargy. Farms affected in Suffolk found that 30 to 35 per cent of their flocks died from the infection (BBC, 2007). The virus only survives in climates above 15°C; UK winters are currently too cold for midges to survive.

Scrapie (a transmissible spongiform encephalopathy) is a fatal degenerative brain disease which affects sheep. The symptoms of scrapie are very similar to those of BSE (bovine spongiform encephalopathy); it is possible that BSE in sheep has occurred but remains hidden due to misdiagnosis. The cause of scrapie is not fully



understood. It spreads quickly (although symptoms occur a long time after initial infection) and is resistant to most disinfectants. Infected sheep may scratch a lot, grind their teeth, lose coordination, tremble, and become aggressive, excited or depressed. Common industry practice is to cull affected sheep to prevent the disease spreading. The law states that farmers should receive compensation for culling infected animals, £30 for a sheep "at the end of its productive life" and £90 for a young animal (Animal Health, 2002). Tests are carried out after

the cull to confirm the infection; if the tissue tests negative for scrapie the farmer may be awarded up to £400 per animal in compensation for loss of earnings (Defra, 2004).

Sheep are also susceptible to foot-and-mouth disease which affects cloven-hoofed animals such as sheep, pigs and cattle. Symptoms include fever, lameness, a tendency to lie down and an unwillingness to stand up. The virus exists in the animal's milk, saliva and excrement, thus allowing it to spread easily under poor biosecurity measures. The disease is also thought to spread through the air and can travel far under certain weather conditions. The disease is rarely fatal; it cannot be cured but usually runs its course within two or three weeks. However, the UK culls infected animals to prevent others being infected as this would cause economic problems for the farming community. During the 2001 outbreak, six million animals were slaughtered in the UK of which three million were sheep (Arnold, 2004) to avoid the disease spreading and over £1 billion was paid to farmers in compensation (*Farmers Weekly*, 2007).

Shearing

Selective breeding has ensured that sheep have fleeces that can not be shed naturally over the summer months, leaving them at risk of heat exhaustion. Shearing typically takes place once a year, at the beginning of the summer. Shearing may also occur just before the sheep are housed for the winter (although this is rare in the UK); this wool is likely to be of better quality than summer wool as sheep have not recently been through the stresses of lambing and lactation.

A professional shearer is able to shear one sheep in less than two minutes, which works out at 250 sheep in one day (British Wool, 2006). Shearers are commonly paid per animal rather than by the hour; this means that shearers spend as little time as possible on each animal and consequently welfare is often compromised. It is common for sheep to suffer nicks from the shearers used in the process. To prevent the sheep becoming ill from stress during shearing, food and water are often withheld for eight hours. The restraints and close contact with the shearer also make the sheep stressed and scared.

Some lambs are sheared for the first time at approximately seven months old and their wool is sold at higher prices because it is softer than wool from an adult sheep.

Once the wool is sheared it is graded. Low and high quality wool will have different end uses; low quality fibre will be used for carpets and high quality soft wool can be used for delicate clothing. Then the wool is washed and dried to remove the grease (lanolin). Lanolin is often used in cosmetics. The wool is then combed, spun and weaved to become wool fabric.

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Slaughter

Over 16.5 million sheep were slaughtered in the UK in 2008, half a million more than the previous year (Defra Statistics, 2009). Naturally, sheep can live up to 17 years; but farmed sheep are slaughtered, usually before they reach six years old. The majority of sheep slaughtered each year are lambs.

Animals (except those killed by religious slaughter) must be stunned before slaughter in the UK. For sheep this usually means having an electric current passed through their brain. Electric prongs are applied on either side of the animal's head, and a current passes between, rendering the animal unconscious. For this to be effective, the prongs must be applied in the correct place and for the correct amount of time. In the rush to slaughter as many animals in as short a time as possible, some sheep are incorrectly stunned which means they regain consciousness while having their throat cut or while bleeding to death.

The law states that "the strength and duration of the current used is such that the animal is immediately rendered unconscious and remains so until it is dead." (Statutory Instrument 1995 No. 731)

The livestock industry is about generating profit; animals are treated as commodities and they are exploited to increase their financial worth. Once slaughtered, animals continue to be exploited by the industry. Slaughtered sheep have their wool removed to be turned into products such as carpets and fashion items.



A sheep being stunned before slaughter





Other animals

The fleece of alpacas (a relative of the llama) is used to produce alpaca wool which is particularly desirable because it comes in 22 natural colours and is hypo-allergenic (Farm Yarn, 2009). Alpaca wool is warmer than sheep's wool and has a silkier feel. Alpacas have evolved to live in warm climates, so UK farmers are advised to provide vitamin supplements to compensate for the lack of sunlight.

The UK herds makes up only a small proportion of the world's market and Alpacas are not slaughtered for their wool. In other countries it is common practice to slaughter the animal when his fleece decreases in quality. Peru farms around 75 per cent of the global Alpaca population (Alpaca/cotton, 2009). Although they have a lifespan of around 20 years, they are usually slaughtered when they reach seven (Hack, 2001).

Centuries ago, farmers started breeding angora rabbits (a breed with long soft fur) on a small scale for their wool. It is now the third largest animal fibre industry in the world, with China producing around 90 per cent of the total global output (Schlink, 2003). The fur is harvested around three times a year, and can be done by plucking or shearing or simply collecting the molted fur. Plucking the rabbits can be time consuming, and molted fur is often matted so many producers prefer to shear their rabbits.

Rabbits are social animals and should not be kept alone. In wool production they are confined in solitude to protect their fur; this puts the rabbits under great stress. When the rabbits reach the end of their wool producing cycle they begin to produce low quality wool. Many are then slaughtered and their pelts are sold to the fur industry. Chinese breeders, who dominate the world market, often raise angora rabbits for their fur and meat and slaughter them while still young (Lebas et al, 1997).

Karakul lambs, native to Central Asia, have very soft curly hair which begins to unravel when the lamb is around three days old. To avoid missing out on the high prices paid for the fleece, the lambs are slaughtered within a day or two of their birth. Their skins are often sold to the fur industry and used for high end fashion items including coats, dresses and trims.

Mohair wool is produced from the fleeces of angora goats. These animals suffer greatly in cold, wet conditions when their fleece has been shorn. Originally from Turkey, these animals are not suited to the cold UK winters. Shearing usually takes place twice a year, in spring and autumn, meaning that the goats are forced to suffer the cooler autumn months without their fleece. Once the goats cease producing high quality wool, they are sent to slaughter.

Cashmere is an expensive luxury fabric which is produced using goat wool. The exclusive nature of the fabric means that any faults in a goat's fleece mean he is deemed useless to the cashmere industry and will be slaughtered for cheap meat. Farmers are advised to expect to cull at least half of their goats due to fleece defects (Cashmere Characteristics, n.d.).

Merino wool comes from Merino sheep which are used for wool farming in Australia. In 2004/5, 107 million sheep were shorn in Australia for the world's wool market (Australian Wool Innovation Ltd, 2005). Australia is the market leader in the global wool market and exports wool to 52 countries. Merino sheep have been selectively bred to maximise wool production; they have folds in their skin which means there is a larger surface

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area for the fleece to grow. These folds, however, trap urine and moisture and begin to smell. Flies are attracted to the odour and lay eggs between the folds of skin. Once hatched, the larvae irritate the sheep and fleece production diminishes as a result. The common and barbaric form of treatment, "mulesing", involves the affected areas of skin being cut off (which is often done without anaesthetic) in the hope that the scar tissue that forms will prevent fly infestation in the future. The UK imports large amounts of Australian wool each year (NSW Department of Primary Industries, n.d.). Wool is even produced using the hair of Ilamas and camels.

Boycott Wool

When purchasing wool, you are supporting the cruel practices of sheep husbandry. Infectious abortions, footand-mouth, footrot, starvation and exposure to extreme weather conditions – many sheep suffer terribly throughout their short lives. Many lambs never live to be adults because they are slaughtered for the popular lamb meat market. Those that do live into adulthood are slaughtered once their fleece declines in quality.

A common misconception is that sheep are sheared to improve their welfare. Years of selective breeding has guaranteed that sheep can no longer moult enough fleece for the summer months. This does not mean sheep are sheared with their welfare in mind; they are sheared for the promise of financial return. Once they are unable to provide high quality (and high profit) wool, they will be slaughtered and have their skins removed and processed for wool production. Some people mistakenly believe that wool comes from happy sheep; in fact there is a good chance that the wool you purchase has been stripped from a dead sheep.

Alternatives

Cruelty-free wool alternatives exist and you don't have to look hard to find them. There are wide varieties of synthetic fibres which are just as warm as wool, and you can find an impressive selection of natural fibres such as cotton and hemp. You can even buy fleece made from recycled plastic bottles which is warm and good for the environment!

Check the labels; if products contain wool – don't buy them, but also write the company a letter telling them why! Use your consumer power to tell companies that animals are not commodities to be exploited.

What you can do

- Don't buy or wear wool
- Educate your friends and family about wool and ask them not to buy it in future
- Order a free pack of Viva!'s The Big Cover Up leaflets to distribute
- Write to businesses and ask them to reconsider using wool in their products
- Write to your local newspaper regarding wool production
- Visit www.thebigcoverup.org.uk for more ideas of how you can get involved

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