



*Viva!*

# The Dark Side of Dairy

A Viva! Report

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# The Dark Side of Dairy

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## Executive Summary

The farming of animals for meat has received much public attention and scrutiny over the past few decades, prompting calls for tighter animal welfare regulations and moving millions of people to adopt a vegetarian diet. Meanwhile, the farming of cows for dairy products, which has become increasingly intensive in recent years, has received less attention.

This report exposes modern dairy farming, shatters its picturesque image and shows the immeasurable mental and physical suffering experienced by millions of cows and their calves every year. It serves as a wake-up call for everyone who is opposed to animal cruelty yet continues to buy and consume dairy products.

While many of the welfare problems raised in this report – such as lameness, hunger, mastitis and invasive embryo technologies – are a result of the continued drive to increase the cows' milk yield, the emotional trauma caused by removing a newborn calf from his or her mother is inherent in dairy production. The enormous physical demand placed on the cow by the dual load of pregnancy and lactation is also an intrinsic part of dairy farming.

For anyone reading this report, the conclusion that dairy farming inflicts unacceptable and unavoidable pain and suffering on cows and their calves is inevitable.

We have a website specifically covering all the issues surrounding the dairy industry where you can find information, resources and our videos. Please go to [www.whitelies.org.uk](http://www.whitelies.org.uk) and a Facebook page White Lies & Milk Myths.

### Please Note:

The health aspects of consuming cow's milk are not covered here. For a fully referenced report on the serious health issues associated with dairy consumption, please see the *White Lies* report by Viva! Health ([www.vivahealth.org.uk](http://www.vivahealth.org.uk)).



## Viva! Dairy Investigations and Resources

Viva! has conducted several investigations of British dairy farms documenting the reality of modern dairy farming (described below). We have produced a number of resources, including investigation and educational videos that are available through our YouTube page [www.youtube.com/user/vivaorg](http://www.youtube.com/user/vivaorg) and on our website [www.whitelies.org.uk](http://www.whitelies.org.uk).

Our five minute video **The Dark Side of Dairy** provides an authentic overview of the British dairy industry, watch it at [www.youtube.com/user/vivaorg](http://www.youtube.com/user/vivaorg).

### Cadbury farms investigation (2011): A Calf and a Half

Our undercover investigators have been inside 15 dairy farms that supply Cadbury with milk and exposed the shocking reality of how the milk for our dairy foods is produced for one of Britain's top confectionary brands.

We filmed the shocking fate of the male Cadbury calves. Useless to the dairy industry, these 'by-products' are separated from their mothers at only hours old and disposed of. We witnessed a baby male calf callously shot in the head, his body (along with others) went to the local hunt for hound food. This is the fate of numerous Cadbury calves. Others will be sold into the cruel veal industry or slaughtered for pet food.

We filmed the trauma of birth and separation; including birth complications where a device called a 'jack' is used to pull the calf out. We also documented the stressful separation of mother and calf and the subsequent calling of both. The separated calves are housed in small pens in very basic conditions.

We saw cows with distended udders producing 39 litres of milk a day, zero-grazed dairy cattle and cows with debilitating illnesses – mastitis (udder infection), lameness and milk fever.

See the video from our investigation at [www.whitelies.org.uk](http://www.whitelies.org.uk) or go to our YouTube page [www.youtube.com/user/vivaorg](http://www.youtube.com/user/vivaorg).

### The shooting of the calf

A beautiful little calf just a few days old bellows incessantly from a stone shed. He is as perfect as he could be – perfectly formed, perfectly healthy. He is distraught because he has just been separated from his mother and is bewildered and frightened.

"He won't be shouting much longer," says a boiler-suited farmer as a land rover growls up the track into the farm, towing a high-sided trailer. "Come on then," he says opening the gate and ushering the little creature towards the trailer. The teetering, young calf doesn't quite know which way to go and needs urging – but his legs give up on him and he falls over.

The tailgate of the trailer is down revealing a half-full mosaic of black and white, a pattern that quickly resolves itself into individual shapes – a large cow and several calves. All are dead. The driver picks up the calf and places him on top of the pile of corpses, climbing up after him, taking a revolver from his pocket as he does so.

He holds the calf's back while they both try to balance on the pliable bodies beneath their feet and then levels the revolver at the animal's head: "For God's sake keep still," he says with irritation. BANG! And the tiny creature collapses in a heap, his life extinguished just like the lives of over 100,000 other male calves across Britain each year. The man climbs down, smiling at the farmer, desensitised by constant repetition of the task. This man is from the local hunt.

A notice on the side of the trailer completes the story: "Not for human consumption," it says, "For feeding to hounds." Royal hounds, as it happens, as this load of dead dairy animals is destined for the Beaufort hunt, patronised by Prince Charles, his wife Camilla and Prince William.

## Nanny State (2012): The Truth about Goat's Milk

Goats' milk comes from happy animals on small rural farms. Right? Well, that's what the industry wants you to believe. However, you don't have to scratch very far beneath the surface to find a far more unpalatable truth. In short, the kids are not all right. Through a series of ground-breaking undercover investigations Viva! has shone a light on the rapidly expanding goat's dairy industry in the UK – including farms that supply the UK's biggest supermarkets.

Our exposé has documented illegal mutilations of baby animals and other legal but extremely painful procedures – including the disbudding of baby goats, painful castrations with a tight rubber band fitted above billy goat's testes so they gradually shrivel (without pain relief).

We filmed goats with abnormally distended udders and swollen teats, lame goats with overgrown hooves, sores, goats who couldn't stand up, piles of dead carcasses, intensified zero-grazing farming practices and unwanted billy goats. It is this intensification that has allowed the industry to surpass the production of 2 million litres a year in Britain for the first time.

In May 2012, we filmed undercover at Upper Enson Farm (Britain's largest grazing goat herd) in Staffordshire, who milk around 1,800 goats for Delamere Dairies – who supply M&S, Waitrose, The Co-op, Sainsbury's and a number of other major UK retailers. In September/October 2011, we also filmed at Bromes Farm in Somerset, which farms around 1,200 zero-grazed goats and supplies Tesco.

The system works the same way for dairy goats as it does for dairy cows – females are used to replenish the herd, but males can't produce milk so they are either killed at birth or kept for meat for the growing ethnic market. Almost all kid goats suffer at least one painful mutilation – and often without anaesthetic.

See the video from our investigation at [www.whitelies.org.uk](http://www.whitelies.org.uk) or go to our YouTube page [www.youtube.com/user/vivaorg](http://www.youtube.com/user/vivaorg).



# The Dairy Industry in Britain

## Size and Numbers

There are currently around 1.8 million dairy cows living on the UK's 14,550 dairy farms (1, 2). As cows must give birth to a calf in order to produce milk, there are also around two million dairy calves born in the UK each year. Cows are kept in an average herd size of 125 but this varies hugely – from small family farms to big intensive farms; however the average herd size has more than quadrupled when compared to average herds of just 30 in the 1970s (3, 4).

Ninety per cent of dairy cows in the UK are the Holstein-Friesian breed (the black and white cows) and other breeds include Ayrshire, Guernsey and Jersey cows (5, 6). Dairy cow milk yield (the amount of milk a cow produces) has increased from an average of 3,750 litres per cow per year (12 litres/21 pints per day) in the 1970s (5) to 7,445 litres (24.5 litres/42 pints per day) in 2012 (1). There has been an almost eight per cent (530 litres per cow) increase in the average yield per cow per year just between 2007 and 2012 (1). Over the last 40 years milk yield has more than doubled due to selective breeding (genetics) and the intensification of herd management. The figures above reflect only the average per cow, some individual cows may produce significantly more but either way it equates to seven to ten times more than a cow would naturally produce to feed her calf (7).

The unnatural physical demands placed on modern dairy cows result in a large number of the national dairy herd being killed every year due to lameness, mastitis (udder infection) and infertility. In most high-production herds, cows are worn out and sent for slaughter before their fourth lactation – at only five years old (5) – when they can naturally live to be at least 20 (7, 8). There are even cases of dairy cows in sanctuaries living into their 30s.

Dairy farming is the single largest agricultural sector in the UK at £3.8 billion (the value of the whole industry), with annual milk production around 13.5 billion litres (9). It accounts for around 17 per cent of UK agricultural production by value (10).

Although the UK is largely self-sufficient in milk, the value of UK exports of milk products is much lower than the value of imports. In 2012 the UK had a trade deficit of about £1.5m in dairy products (9).

With an annual turnover of £10 billion, Dairy Crest is the biggest UK dairy company, whose profit in 2012

was £50.6 million (11). Müller-Wiseman Dairies is another giant company with £40 million profit in 2010 (12), followed by First Milk's £13.3 million profit in the financial year 2011/2012 (13) and a gigantic European company Arla, whose UK profit was £8.4 million in 2012 (14).

## Promotion

The British dairy industry spends millions on advertising every year – in 2012, it was £124.2 million (15). Yogurt products account for the largest proportion of dairy advertising – with 44 per cent (£54.2 million) of the total amount. And the amount of money spent on dairy promotion keeps growing – between 2011 and 2012 it increased by £17.5 million (15).

The UK dairy industry is supported and promoted by the DairyCo, the Dairy Council and Dairy UK.

DairyCo is a levy-funded, not-for-profit organisation which is a division of the Agriculture and Horticulture Development Board (AHDB). It works on behalf of Britain's dairy farmers, with an annual income of £6.5 million coming from a statutory levy paid by dairy farmers on their milk sales (16). One of their four main strategies is 'promoting the positive perception of dairy farming with the general public' and during the three year period 2013-2016 they'll spend over £8 million on promoting dairy and making its production more effective which includes numerous breeding programmes (17). DairyCo also created a special website 'This is Dairy Farming' so that people can 'find out about life on a dairy farm and how milk is produced' (18).

Dairy UK is the 'Voice of the Dairy Industry' (19) covering the whole supply chain, bringing together farmer representatives, dairy co-operatives, dairy manufacturers, bottle milk buyers and milkmen. Dairy UK also owns British Cheese Board and The Dairy Council – both essentially serving the purpose of dairy products promotion and defending the dairy industry's interests.

The Dairy Council is funded by Dairy UK and its only aim is to promote milk and dairy products through a range of educational materials on supposed health benefits of dairy for consumers, health care professionals and schools (20).

## Targeting Children

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Realising the importance of getting people hooked on milk while they are young, the dairy industry bombard British schools with propaganda thinly veiled as 'educational' materials.

DairyCo run various projects, including 'Food – A Fact of Life' which provides 'educational' resources for schools presented to be about healthy eating, cooking, food and farming for children and young people aged three to 16 years (21) and inevitably teach children that dairy products are an essential part of their diet.

Through the European School Milk Scheme, the European Union provides subsidies to schools so that they can provide their students with milk – either free for young children or substantially cheaper (than usual price) for older children. The aim, as they say, is: "to encourage children to consume milk and milk products and develop a lasting habit of doing so." In the school year 2010/2011, almost 27,000 tonnes of milk and yogurt had aid paid on it which cost over £8 million (22).

There are several school milk suppliers such as Cool Milk, School Milk UK, Dairy Link UK, that facilitate free and subsidised milk supply to schools and all of them also offer 'educational' materials.

The huge 'Make Mine Milk' campaign employing celebrities to promote milk to young people is run by The Milk Marketing Forum, a joint venture of leading British dairy companies and milk co-operatives (Arla Foods UK, Dairy Crest Limited, First Milk, Milk Link and Müller-Wiseman Dairies). Of the £7.5 million total spend for the campaign, a third comes from European Commission funding (23). However, just in 2012, the Milk Marketing Forum received a subsidy from the EU of over £840,000 (24).

All these campaigns and materials avoid mentioning the unappealing practices that dairy farming is based on, are very simplistic and offer a rose-tinted view of what goes on at a dairy farm. The extensively exploitative nature of the industry is completely played down, suggesting that farmers assist the cows in their natural life and getting milk from the cows is done without inconveniencing the animals. And the simple facts that humans don't need cow's milk to survive, that cow's milk is linked to many diseases and that we have evolved to consume human breast milk until weaning, are also conveniently omitted.

DairyCo's website 'This Is Dairy Farming' paints an idyllic picture when talking about the lives of dairy cows: 'they have access to nutritious feed, the best healthcare and spacious pastures and barns. Dairy cows are social animals that live and graze in herds and they need exercise as well as rest.'<sup>(25)</sup> And when talking about separating the calf from the mother just one day after birth, they claim it's best for both the mother and the calf completely failing to admit that breaking the bond between them causes immense stress and that in nature, the calf would suckle from their mother for eight to twelve months. And of course there is no mention of unwanted male calves being shot in the head at a day or two old (see page 17).

## More Subsidies

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In 2004 EU dairy farmers received a total of €970 million in direct aid from the EU, with UK farmers receiving €119 million (26). Since 2005 records for funding have changed which means it is not possible to tell exactly what type of farming receives what amounts.



# The Natural Life of Cattle

Cattle are highly intelligent, sentient mammals who have evolved complex social behaviour over thousands of years. The natural life of cattle, described below, is very different to the lives they have on dairy farms.

## Family History

Cattle are members of the *Bovidae* family, which also includes antelope, goats, sheep, bison and buffalo. Modern domestic cattle (*Bos taurus*) are descended from the much larger auroch (*Bos taurus primigenius*) which once ranged throughout Britain, Africa, the Middle East, India and central Asia. Domestication of the auroch began in Mesopotamia around 6500 BC where they were used for meat, milk, hides and labour (27). Selective breeding over the millennia caused dramatic physical changes to domestic cattle, to the extent that they are now considered a separate species (27). Wild aurochs became extinct in Britain in the Bronze Age, with the last members of their species killed by hunters in Poland in 1627 (27).

Populations of semi-wild cattle still survive in several countries, including the white cattle which have roamed free in Chillingham Park in Northumberland for at least the past 700 years (28). Studies of this herd, and other semi-wild herds, have provided much insight into natural cattle behaviour.

## Natural Behaviour

Semi-wild cattle form small groups, averaging 15-20 animals, with a strict social hierarchy – the highest ranking individuals having priority to food, shelter and water, with offspring inheriting their mother's status (29). The social structure within herds is based on matriarchal families, with mother cows and their daughters remaining grooming and grazing partners for their whole lives (29). These mother and daughter units are connected by lifelong friendships to other, unrelated cows to form a herd (29). Once the social structure is established in a herd it remains stable for many years and any disruption to the group, such as a new member or division of the herd, is very stressful and confusing for them (29). According to Rosamund Young, an expert on cattle behaviour, it is extremely common for calves to establish lifelong friendships when only a few days old (30). These social bonds are constantly reinforced through mutual grooming (30).

### Birth

The birth of a calf is a very private moment for a cow and she will usually take herself off from the rest of the herd to give birth, leaving her calf hidden away in long grass for the first week or so (28, 29). The week-old calf is then brought to the herd for an introduction ceremony. The 'king' bull comes out to meet them and escorts them into the herd. The other cows then inspect and sniff the calf, as if to decide whether he or she should be admitted to the herd. Once this is 'agreed', the cows pay no further attention to the new calf who remains with the herd (28).

### Growing up

Cows are very protective of their young and will attack, and even kill, anything they see as a threat. Female calves will naturally suckle until they are around nine months old and stay with their mothers for the rest of their lives (29, 30). Males are weaned at around 12 months old and would then leave the herd and join a bachelor herd (29). Both males and females can easily live to be 20 years old (28, 29, 30).



Chillingham cattle – the only survivors of the wild herds which once roamed Britain's forests

### Eating Behaviour & Nutrition

Cows are ruminants who graze on vegetation most of the day and digest their food in two steps. The first step is eating the raw material and the second is regurgitating a semi-digested form, known as cud, which they chew again (27). Their stomach is divided into four chambers with each carrying out different functions. In the first chamber, called the rumen, the food is mixed with fluid to form the cud. The regurgitated cud, after having been slowly chewed, is swallowed again, and passes through the rumen into the other stomach chambers for further digestion (27).

### Senses

Cattle have a wide field of vision but are poor judges of detail and distance (27). Contrary to popular belief, cattle can also see colour although they have a deficiency towards the red end of the spectrum (27). Due to their poor depth perception, they are often reluctant to enter dark or shadowy areas and frequently over-react to quite small things in their path, such as changes in floor surface or shadows (30).

Cattle have excellent hearing and hear sounds at similar and higher frequencies to humans; they dislike loud, sudden noises. They also have a very effective sense of smell which they use to explore new objects or environments.



Cows establish strong friendships when only a few days old, making later separation stressful and confusing



## The Life of a Modern Dairy Cow

The modern dairy cow's life bears little resemblance to that of her wild relatives. Every aspect of her life is manipulated to maximise milk yield, inevitably at the expense of her health and welfare.

*"The dairy cow is exposed to more abnormal physiological demands than any other class of farm animal", making her "a supreme example of an overworked mother".*

John Webster, Emeritus Professor of Animal Husbandry at Bristol University's Clinical Veterinary Science Department (7,8)

### Milk Production: Due to Pregnancy

Cows are mammals who, like us, produce milk in their mammary glands to feed their young. They therefore must give birth to a calf in order to produce milk and must be re-impregnated every year to keep that milk supply going (7, 8). Most dairy heifers are impregnated for the first time when they are between 14 and 28 months old, giving birth to their first calf nine months later (31). Farmers aim to get cows impregnated as early as possible to reduce the time and cost of keeping a cow that can't be milked (31).

Most dairy herds in the UK are now artificially inseminated (AI) as this is much cheaper than keeping a bull and allows farmers to select the sire from a variety of breeds. AI is, in fact, a very lucrative business, with the dairy farming sector split between farms which produce milk and farms which produce semen (32). The use of more invasive practices such as multiple ovulation therapy and embryo transfer is increasing steadily in the UK and the rest of Europe (33).

### Fate of the Calves

Although a cow would naturally suckle her calf for nine months to a year, calves born on dairy farms are taken away from their mothers within a few days of birth (8, 29) – so that we can drink the milk that was meant to nourish the calf. A strong mother/infant bond is formed between cow and calf within the first few hours of birth, making their separation extremely traumatic (34). Both the cow and calf



Calves are removed from their mothers shortly after birth

bellow and show obvious signs of distress when they are separated, often continuing for several days, leaving those within earshot in no doubt that it is a harrowing experience for both (8, 30, 34). The cow will be re-impregnated two to three months after the calf is removed and forced to endure this emotional suffering again and again, every year until she is worn out (31, 35). Professor John Webster describes the removal of the calf as the "most potentially distressing incident in the life of the dairy cow" (35). The fate of dairy calves is discussed in the chapter "Calves – Unwanted By-Products".

## Simultaneous Lactation and Pregnancy: A Huge Physical Burden

Because she is re-impregnated while still lactating from the previous pregnancy, a dairy cow spends seven months of every year simultaneously pregnant and producing large quantities of milk. This enormous physical demand requires her to eat over four times more food per day than a beef cow at pasture (8). Her average milk yield will be around 25 litres a day (1, 36) but for some cows it can be up to 50 litres a day – this means seven to 14 times more than a calf would drink, so her whole body and udder in particular is forced to work unnaturally hard (37). In addition, a calf would normally feed five to six times a day so that the maximum amount of milk in her udder at any one time would be around two litres (37). But on most dairy farms a cow is milked only twice a day, allowing milk to accumulate in the udder and can force her to carry around 20 litres of milk or more (7). This greatly enlarges the udder and leads to lameness in her hind legs and predisposes her to mastitis (a painful infection of the udder) (8).

Her only rest from this demanding workload is during the last month or two of her pregnancy when she is 'dried off' in preparation for calving – then the whole cycle starts again (38). This 'dry period' lasts between two months and three weeks before birth and its main aim is to give the cow's udder a little bit of time to heal and regenerate before she starts to be milked again (38). Predictably, this gruelling cycle takes its toll on her body:

*"...a depressing number are culled after only two to three lactations because they are worn out, either through complete loss of body tissue (emaciation), or breakdown of the udder tissues, or chronic lameness."*

Professor Webster (37)

The problems of malnutrition, lameness and mastitis are discussed further in 'Suffering in Silence', page 22.

Because of the huge pressure this puts on the cow's body, the average dairy cow in the UK completes less than four lactations (31) – that means that around the age of six, she is slaughtered because she stops being profitable (either because of low milk yield, infertility or diseases that would require costly treatment) (5, 31).



Simultaneous pregnancy and lactation mean the cow's body is required to work unnaturally hard and she is exhausted and sent to slaughter at a very young age



## Housing

The dairy cow's physical problems are compounded by being kept indoors for six months of the year. The majority of dairy herds in the UK currently graze from April to October and spend the rest of the year housed indoors in cubicle units (3, 39). However, there's an increasing number of dairy farms in Britain that have adopted a zero-grazing system where cows spend their entire lives indoors (3, 8). This is discussed in the 'Intensification and Zero-grazing' chapter, page 29.

As a result of the switch from British Friesians, who average 550kg, to Holsteins, who average 700kg, as the dominant dairy breed, many cows now simply do not fit in the cubicles and their hind legs protrude into the slurry passage behind them, while some find the cubicles so uncomfortable that they choose to lie in the slurry covered aisles instead (5). The social hierarchy within the herd can also contribute to problems in indoor housing units as lower ranking cows often choose not to use cubicles next to dominant cows and instead lie in the aisles or slurry passage (5, 40).

## Indoor Diets

Whilst indoors, cows are fed a diet of silage (wet, fermented grass) and high protein concentrate (a mixture of cereals, rape meal, sunflower meal, maize and soya) (8). Wet silage causes wet manure and the resulting poor hygiene conditions contribute to mastitis and lameness (8) – these conditions are described below.

High protein concentrates cause a build up of toxins in the cow's system which often cause the severely painful condition laminitis (inflammation of the tissue which lies below the outer horny wall of the foot) (8, 41, 42). When there's too much concentrate in the diet or too much of it is fed at once, it causes lactic acid accumulation which leads to a change in metabolism and a change in bacteria in one of the stomachs (rumen). This condition is called acidosis – which means there's too much acid in the body, more than the body can cope with. When lactic acid is absorbed into the bloodstream it upsets the cow's metabolism and affects blood circulation reducing blood supply to the feet (41). And because the increased acidity of the rumen also kills some of the bacteria that naturally live there, their decay produces toxins which are absorbed into the blood stream and can cause permanent damage to blood vessels (41).



At most farms, cows spend at least six months a year indoors in conditions that not only contribute to a number of health problems but are also stressful

## Slaughter

For all of her hard work and suffering, the dairy cow is sent to the slaughterhouse as soon as her milk yield drops. Modern dairy farms are about maximising profit and minimising overheads. Worn out cows endure a gruelling journey to market where they are sold to fattening (finishing) farms, before being sent to the slaughterhouse – ending up in 'low quality' beef products such as pies, burgers, soups and baby food.

DairyCo even has a dairy herd culling calculator online enabling farmers to count their herd's cull rates (43). It states these reasons as the main and most common reasons for culling dairy cows: infertility, mastitis, lameness and poor milk production. The same website also contains a 'finishing calculator' (44) that allows farmers to calculate the price estimate of a cow's carcass when they're planning to slaughter her.

For details on cattle slaughter methods in the UK, please see Viva!'s *Sentenced to Death* report.

## Sex and the Single Cow

Reproduction is at the heart of the dairy industry as cows must give birth to calves in order to produce milk. This aspect of the cow's life is extensively manipulated.

### Artificial Insemination

Very few dairy cows in the UK mate naturally. The majority are impregnated by artificial insemination (AI), which involves restraining the cow so she can't move and passing a catheter through the cervix of the cow and depositing the semen in her uterus (45). This is an uncomfortable, stressful experience for the cow which can result in injury if carried out by an untrained or inexperienced person (40). According to The Veterinary Surgery (Artificial Insemination) Order 2010, artificial insemination is one of the procedures non veterinarians are permitted to carry out (46). The criteria for being legally allowed to do this are: aged 16 years or over, have never been convicted of an offence relating to the welfare of animals, carrying out artificial insemination as part of an approved course or has successfully completed an approved course. AI training courses take place on working farms, using live animals for practice.

Artificial insemination is so widespread because it is cheaper to purchase frozen sperm than to feed and look after a bull. It also allows the farmer to choose from a variety of breeds to sire the calves. It is common practice for farmers to use semen from dairy breeds such as Holstein/Friesian for 50 per cent of their inseminations and semen from beef breeds such as Charolais or Hereford for the other half (32,

47). This ensures a regular replacement of 'good milkers' for the herd as well as a number of dual purpose calves who can be sold for beef production (32). However, male calves who have been sired by a dairy breed are of little use on a dairy farm as they do not produce milk. They are also of little use to a beef farmer as they do not put on muscle in the same way that beef breeds do. Male dairy calves are simply unwanted by-products of dairy production and of around 500,000 born every year, about 100,000 are killed on farms shortly after birth (48, 49). In 2011, over 11,000 male dairy calves were exported live mostly to European countries for veal production and 360,355 remained in the UK to be killed within a few months (49). The fate of dairy calves is discussed further in 'Calves – Unwanted By-products' page 16.

In 1999, the largest British AI company Cogent (50) began selling Holstein semen which was sorted to pre-determine the sex of the calf. It was the first breeding company in the world to offer sexed semen commercially. The sexed semen, they claim, gives an average result of 90 per cent female sperm and 10 per cent male sperm, allowing farmers much greater control over the cow's reproduction (50). However, sexed semen is more expensive and not used by many farmers due to its high cost (51, 52).

### Embryo Transfer

Invasive embryo technologies have been used in Europe for years. To ensure that 'high quality' cows produce more offspring than is naturally possible, embryos are removed from their wombs and transferred into 'lower quality' cows who serve as surrogate mothers (40). Embryos can either be collected directly from the 'donor' cow or can be produced in vitro (in a test tube) with 'donor' cow eggs retrieved through ovum pick-up (33).

**Embryo collection:** 'high quality' cows are given a treatment to increase ovulation and then artificially inseminated in the usual manner (45). The resulting embryos (usually between seven and 12) are flushed from her uterus using a catheter type instrument (45). As this procedure takes place a week after oestrus (ovulation), the uterus is more difficult to penetrate than during artificial insemination and can result in bleeding and sometimes even uterine rupture (45). The procedure is so painful that UK law requires the use of an epidural (53).



Most dairy cows are impregnated by artificial insemination which is very stressful for the cows and can cause serious injury if performed improperly

**Ovum pick-up:** unfertilised eggs are collected from 'donor' cows by a needle inserted through the wall of the vagina and into the ovary (53). According to Defra:

*'Repeated epidural injections are necessary for this procedure and they can cause welfare problems for the animals, such as severe pain in the tailhead and lower back'. (53)*

Surrogate cows receiving the embryos, whether direct from the 'donor' cow or from in vitro fertilization, are artificially brought into heat (45). A 'gun' is then used to insert the embryo high into the uterus, a procedure requiring great skill which can only be acquired with practice (45). The use of an epidural is compulsory (53).

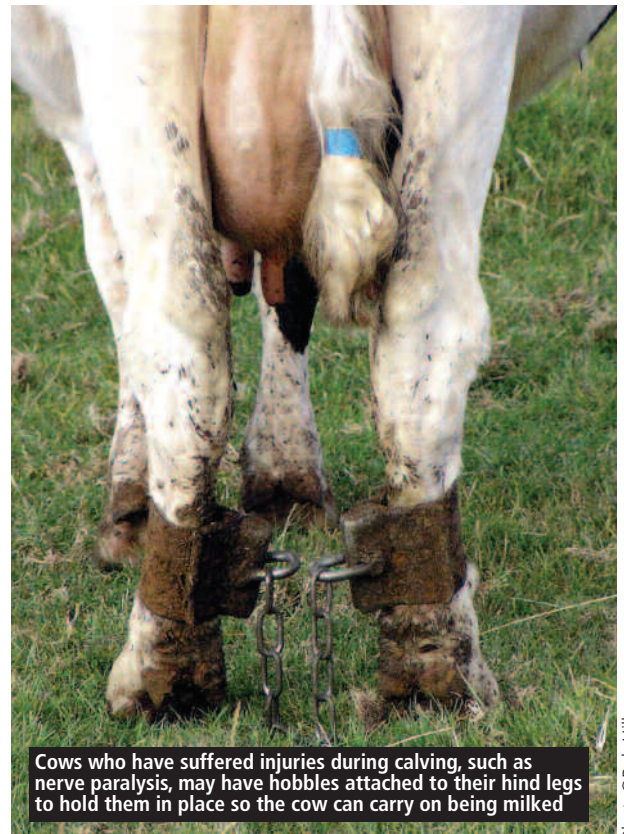
## Ultrasound scanning

Over the past decade the use of rectal ultrasound to detect pregnancy has become common on British dairy farms (40). This involves inserting a long probe (about the thickness of a finger) into the cow's rectum until it lies over her uterus (40). Careless insertion or removal of the probe can damage the rectal tissue and internal organs, causing great pain (40). Both the Royal College of Veterinary Surgeons (RCVS) and the Government's Farm Animal Welfare Council (FAWC) have expressed concerns over non-veterinarians performing the procedure (5). Despite these concerns Defra still permit non-veterinarians to carry out per rectum ultrasound (54).

## Calving

Concerns have been raised by the FAWC and the Food Ethics Council (FEC) over the use of embryos or semen from large cattle breeds in smaller recipient cows who will have difficulty giving birth to them (40, 45). This mismatch can result in severe injuries to the cow during calving, including internal haemorrhage, nerve paralysis and pelvic fracture (45, 55). According to the National Animal Disease Information Service (NADIS) calving difficulties are the cause of 46 per cent of 'downer cow' cases – when a cow is unable to stand up – on British dairy farms (55).

'Downed' cows require immediate attention to prevent injuries, which may only be temporary, from causing permanent damage (40). A cow may 'go down' because of temporary nerve paralysis caused



Cows who have suffered injuries during calving, such as nerve paralysis, may have hobbles attached to their hind legs to hold them in place so the cow can carry on being milked

Photo©Rob Hill

by calving difficulties or simply fatigue from her gruelling workload, but if left recumbent for several hours permanent damage can be caused to her legs, specifically nerves and muscles (due to her 700kg body cutting off the blood supply) (51, 56). Several different types of lifting gear are used to get 'downed' cows on their feet again. These include (56):

- Tail lift
- Nets/slings/cradles/harnesses
- Hoists clamped to the cow's hip bones
- Inflatable bags
- Flotation tanks

However, if used incorrectly all the above can do more harm than good to the cow (56).

Hobbles and shackles are also commonly attached to the hind legs of cows who have suffered muscle or nerve damage during calving and would not be able to stand unaided. If the farmer were to cull a cow who was injured during calving he would lose the large quantity of milk which she was about to produce. Injured cows are therefore often forced to carry on, even when in pain, for seven to eight months until their milk yield drops and they are killed.

Dairy cows impregnated with large continental beef breeds such as Belgian Blue, Charolais or Limousin are sometimes unable to give birth naturally and must undergo caesarean section (37, 40). In order to prevent the need for this major surgery, farmers using large continental breeds to sire calves may induce calving before the cow reaches full-term (40), which obviously causes enormous stress to the cow and calf.



## Calves – Unwanted By-products

Although cows would naturally suckle their calves for nine months to a year, dairy calves are taken away from their mothers almost immediately – between hours or up to two days of birth – to ensure that as much milk as possible is available for sale (8, 29). The strong bond that is formed between mother and calf in the first few hours after birth makes this enforced separation a very traumatic experience (8, 34). Both mother and calf bellow loudly after separation and respond to each other's calls by moving toward the sound, with calves able to distinguish their own mother's calls within 24 hours of birth (34).

The cow attempts to get to her calf and it's not uncommon that cows break separation fences to be reunited with their calves (42). The intensity of the separation stress is reflected in changed sleeping and feeding behaviour, loss of appetite, increased heart rate and levels of stress hormones (42).

However, there are many more issues surrounding calves and calving – currently around eight per cent of all calves are born dead or die within 24 hours whilst only 86 out of every 100 dairy heifers born alive make it to first calving (57). Of those who do, 15 per cent are culled before their second lactation (mainly because of infertility) (57).

But the fate of male and female calves is radically different:

### Female Calves

Half of the female calves born each year will be pure dairy breed calves who will enter the dairy herd, replacing the 25 per cent of cows who are culled every year because they are worn out (31, 40). They are allowed to suckle from their mothers for the first day of life so that they receive the antibody rich milk, known as colostrum, which cows produce immediately after calving and which is essential for the calves' immune system (8, 40). Welfare regulations require that each calf must receive colostrum within the first six hours of life (58). However, they are then (usually between 12 hours to two days) separated from their mothers and fed on commercial milk replacer (based on whey or whey protein concentrate, by-product of the manufacture of cheese), either from an artificial teat or from a bucket (8, 40, 58).

Although the main motivation for removing the calves is financial – farmers want to sell as much of



Photo reproduced with kind permission of Tetrapak

the milk as possible – decades of genetic manipulation have resulted in such hugely distorted udders that it is difficult for calves to find and reach the teat. Where this is a problem farmers will remove the calves within a few hours of birth and feed them their mother's colostrum from a bucket or automatic feeder.

Calves are allowed to be sold when they're just one week old and this is an immensely stressful event for them causing them many health problems and makes even their ability to digest food decline (58).

In the first few weeks of life calves, like all infants, are very susceptible to disease, with up to six per cent of calves born each year dying before one month old (58). Diarrhoea (known as scours in the farming sector) is the main factor contributing to these deaths and is often caused by low-quality or incorrectly prepared milk replacer (40, 58). For this reason, artificially-reared calves are weaned completely on to solid food by five weeks of age (58), much sooner than in the wild.

Under the welfare regulations, calves may be housed in individual stalls or hutches, either indoor or outdoor, until they are eight weeks old but after reaching this age, they have to be group housed (58). However, healthy young calves are very energetic and need to play and socialise with other calves (8) and housing in individual stalls or hutches denies them this vital exercise and social contact. Group housing, which all calves must be moved to after eight weeks of age, allows more natural social behaviour and greater opportunity for exercise and play, but also increases the risk of airborne diseases such as





Calves can be housed in individual hutches like this up to eight weeks of age

pneumonia – the most common disease of weaned calves (40, 58). Essentially, it is impossible to artificially rear calves in a way which fulfils their natural needs and behaviours without compromising their health.

If the calves are to replace cows on the farm where they are born, they will be turned out to pasture when a few months old, weather permitting, but are kept separate from older animals until at least six months old to reduce the risk of disease (40, 58). They will be inseminated when they are just over one year – many of them when they are only 13-14 months old (59), giving birth to their first calf nine months later. The age of first insemination has been reduced over the years in order to increase profitability of the cows. They will then have 12-72 hours to revel in the joys of motherhood before their calf is taken away and they begin their gruelling life as a milk machine.

Female calves who are surplus to requirements on their birth farm will be sold on to other dairy farms, usually through a livestock market. Calves as young as seven days old may be brought to market and sold but concerns have been raised that calves even younger than that are being sold (60). These young calves may travel several hundred kilometres from farm to market and then to the purchasing farm. This is not only very stressful for the calves but also exposes them to new pathogens which they have no resistance to, leading to an increased risk of disease (58).

The other half of females born each year will be dairy/beef crosses who are sold, again through a livestock market, to be reared for beef in a semi-intensive system (51, 61). These systems involve

grazing cattle outside in the summer and housing them during the winter, with slaughter age varying from 15-24 months.

## Male Calves

Male calves will never produce milk and therefore are of no use to a dairy farmer. Around half of the male calves born on British dairy farms are pure dairy calves while the other half are dairy/beef crosses (51). All bull calves are removed from their mothers after several hours or maximum two days and housed in stalls or hutches and fed milk replacer just like female calves. Most will also be sold on to semi-intensive beef farms through livestock markets.

Approximately 50 per cent of the pure dairy males will also be reared for beef, but as they will only produce 'low quality' beef they are raised in intensive systems (8, 45, 51, 61). After being separated from their mothers they are confined in buildings and yards for most of their lives – which is usually just over one year (8, 45, 61). High mortality rates in these systems are common as it is not financially worthwhile for farmers to strive to keep them alive (8).

The rest of the male calves are either raised for veal or shot shortly after birth – the unwanted by-products of milk production (51). In 2003 the EU banned the routine burial or burning of animal carcasses on farms and dead male calves are now either collected by the local hunt kennels and fed to the dogs or sent for incineration or rendering (rendering is processing of animal products, specifically whole animal fatty tissue into purified

fats like lard or tallow and a protein meal such as meat and bone meal).

The current estimates are that 100,000 to 150,000 bull calves are shot within hours of birth in the UK (62). Viva! filmed the shocking fate of the male calves at farms supplying milk for the confectionary giant Cadbury. For more information and footage go to [www.whitelies.org.uk](http://www.whitelies.org.uk) or our YouTube page [www.youtube.com/user/vivaorg](http://www.youtube.com/user/vivaorg).

## The Veal Industry

All calves raised for veal worldwide are male calves that are by-products of the dairy industry. In many countries such as the USA – from which we import some dairy products – veal crates are still the predominant rearing system (8, 63). These tiny wooden crates are so narrow that the calves cannot turn around for most of their lives, depriving them of exercise and preventing normal muscle development – to keep their flesh supple. They are also fed an iron-deficient diet to produce the anaemic ‘white’ veal prized by gourmets. Calves kept in these

conditions suffer from high incidences of infectious disease and develop stereotyped behaviour patterns such as tongue rolling, crate-licking or mutual tongue sucking (7, 8).

Veal crates were banned in the EU in 2007 but veal production (within any rearing system) still requires calves to be separated from their mothers within a day of birth. These calves are then placed in pens or hutches, alone or with several other calves, before they are sold to be reared mostly as ‘rose veal’. They are then slaughtered at around six months of age, although some may be older (64, 65).

The UK also exports calves to the EU to be raised for veal. The live export of veal calves to the EU restarted in 2006 after (due to BSE) a 10 year ban. In 2011 exports were estimated to be around 11,000 calves (per year) (66).

## UK Veal Production

Although the veal crate was banned in the UK in 1990 due to the immense cruelty involved, the UK



Two dairy calves removed from their mothers seek what little comfort they can from each other

Photo©Damian Bird





Veal crates have been banned but individual stalls are still legal in the EU

still produces veal. The majority of calves are raised for rose veal. Rose veal production differs from white veal in that calves may only be kept in individual stalls until eight weeks old, rather than the 16-20 weeks for white veal, after which they must be group housed (8, 67). From birth, calves must be fed a diet which contains sufficient iron to avoid anaemia (8, 67) and from two weeks of age they must be provided with a daily ration of fibrous food to allow normal rumen development (rumen is one of a cow's stomachs).

Rose veal calves are slaughtered at around six to eight months of age (62, 64). The market for veal in the UK remains relatively small but a lot has been invested in boosting it (65, 66). In 2011, 360,355 bull calves were kept for veal or low quality beef (49) and the demand seems to be growing.

According to Sainsbury's agricultural manager the renewed interest in veal is due to the fact there is a desperate need on dairy farms for an outlet for bull calves. Sainsbury's is now selling £750,000-worth of veal products a year and the aim is to increase sales to £1million by 2015 (65).

## Continental Veal Production

In January 2007 veal crates were banned across the EU and since this date, EU veal production came in line



Male dairy/beef cross calves will be raised for beef in semi-intensive system where they are kept in sheds like this for most of their short lives

Photo©Toni Vernelli

with UK regulations in several areas but still falls below UK standards in others. As in the UK, all calves will be group housed after eight weeks of age, however EU regulations do not provide group housed calves with as much space as UK law requires (63,65). Under EU law, farmers are also not obligated to provide bedding for calves as they are in the UK (63,65). This is despite the European Commission's expert Scientific Veterinary Committee's (SVC) advice in 1995 that "the welfare of calves is very poor when they are kept . . . [with] no bedding or other material to manipulate" (68). And although EU farmers have to ensure calves are fed a nutritionally adequate diet with a minimum daily ration of fibrous food, the quantity of fibrous food is less than in the UK (a minimum of 50g at two weeks to 250g at 20 weeks) (69).

*"The best conditions for rearing young calves involve leaving the calf with the mother in a circumstance where the calf can suckle and can subsequently graze and interact with other calves."*

Scientific Veterinary Committee, Animal Welfare Section's Report on the Welfare of Calves (68)

No dairy calves are allowed to enjoy these conditions.

## Calf Transport

Few dairy calves live out their short life on their birth farm. Most dairy farmers will keep a percentage of female calves born each year to rear as replacements for worn out cows and the rest of the calves will be sold. The majority of these calves will be sent to livestock markets and auctioned off, often involving



Photo©Animal Aid

lengthy journeys to market and on to the purchasing farms. For many unfortunate male calves this means long journeys to veal farms in Belgium, France and the Netherlands.

While all farmed animals suffer during transport, young calves (less than four weeks old) are particularly vulnerable to transport stress due to their underdeveloped immune system and lack of exposure to new environments (70).

'Shipping fever' (a term used to describe a range of diseases caused by respiratory viruses) and diarrhoea are common problems in transported calves and contribute significantly to calf deaths (70). Calves less than two weeks old are particularly susceptible and can suffer mortality rates greater than 20 per cent following transport (71). Young calves are also more vulnerable to tissue damage during transport, with many calves (up to 50 per cent) suffering from bruised stifles (knee joints) (71).

*"Young calves are not well adapted to cope with transport and marketing, often suffering relatively high rates of morbidity and mortality, both during, and in the few weeks immediately following transport... Comparatively few normal calves actually die during transport but they succumb, usually within four weeks, to a secondary disease as a consequence of their inability to respond appropriately to transport."*

Research conducted by Dr T Knowles of Bristol University (72)

As for the length of transport, very young calves (that are still unweaned or under the age of 60 days) can be legally transported for nine hours with a rest/feed break of one hour, before another nine hours or more of travel (73). Older calves and cows can be transported for 14 hours of travel followed by a one hour rest and they may be then transported for a further 14 hours (73).





Most dairy calves have their horn buds burned with a hot iron to prevent them growing, causing lasting pain

Photo©Holt Studios International Ltd/Alamy

## Mutilations

### Disbudding:

Most calves raised for dairy and beef are disbudded to prevent the growth of horns and minimise the risk of cattle injuring each other in modern intensive rearing systems (40). This can be done by burning the horn bud with a hot iron (cautery disbudding) or by applying a caustic paste which erodes the horn bud (chemical disbudding) (40, 74). Both these procedures can be legally performed by an unqualified person (75). Cautery disbudding causes severe pain which can last for several hours, with lower-grade pain and sensitivity continuing for at least 24 hours (74). Under the Protection of Animals (Anaesthetics) Act 1954/1964, it can only be performed with the use of a local anaesthetic (75). Chemical disbudding is even more painful and may only be performed on calves in the first week of life, however local anaesthetic is not required (74, 75). The caustic paste can also leak on to surrounding skin or into the eyes, causing immense pain (74). Defra recommends that chemical disbudding should not be used although it is legal (76).

### Castration:

Male calves sold or raised for beef may be castrated to prevent aggression (40). Three methods can be legally used to castrate calves in the UK (40, 75, 76):

- 1 A rubber ring or other device can be applied to calves under one week old to restrict the flow of blood to the testicles, which shrivel and drop off within a few weeks. No anaesthetic is required.
- 2 The spermatic cords of calves under two months old can be crushed using an instrument similar to pliers (called a burdizzo). No anaesthetic is required.
- 3 Surgical castration by a vet, under general anaesthetic, can be performed on calves of any age.

According to the FAWC, all three methods cause acute pain – regardless of the age of the calf (40) and complications and infection at the site of castration are not uncommon.

### Supernumerary Teats:

Female calves are commonly born with one or two small, surplus teats on the udder (40). Although not harmful, these 'supernumerary teats' are routinely removed from dairy calves because they are 'unsightly' and make the animal less saleable, or, if located near the base of a true teat, may interfere with placement of the teat cup during milking (77). Up until three months of age these teats may be cut off using sharp scissors without anaesthetic (40, 75, 76). After this age they must be removed by a veterinary surgeon (40, 75).

All the above are stressful procedures which cause pain and can lead to complications and weaken the immune system.

## Suffering in Silence

Most people see dairy cows grazing in the field and think that they have an easy, peaceful life, and die naturally at a ripe old age. In reality, the dairy cow is the hardest worked of all farmed animals, nurturing a growing calf inside her while simultaneously producing 24-40 litres of milk a day. No other farmed animal carries this dual load of pregnancy and lactation.

Professor John Webster has likened the workload of the high-yielding dairy cow to that of:

*“...a jogger who goes running for six to eight hours every day” and believes that “the only humans who work harder than the dairy cow are cyclists in the Tour de France.”*

Professor John Webster (37)

This enormous physical burden takes its toll on the cow's body and after only two to four lactations she is culled, either due to infertility, mastitis, severe lameness or because her milk yield has dropped (8, 31). A healthy beef cow, in comparison, can produce 10 or more calves before reaching physical exhaustion.

*“As far as the welfare issue is concerned, the problems with beef cattle are nothing compared to the problems in the dairy industry. So anyone who avoids beef and elects to eat cheese due to welfare concerns is missing the point.”*

Professor John Webster (8, 78)

In nature, cows are prey animals and as such evolved not to be very vocal because any noise can attract potential predators. The misconception that dairy cows do not suffer often stems from the fact that they do not display the signs of distress that we expect to see, such as bellowing, immobility or loss of appetite (8). Thus, even if they are suffering, they don't show it apart from a few physical reactions such as different posture or urinating. It's been shown that even in the most stressful place – abattoir – only about ten per cent of them vocalise; however they emit fear pheromones in their urine that signal danger to the other animals (42).

## Metabolic Disorders

### Hunger

The high-yielding Holstein cow is a large animal who simply cannot consume enough food at pasture to sustain her enormous milk output as well as her other bodily functions, leaving her in a constant state of 'metabolic hunger' (7, 8). At pasture, her food intake is limited by the rate at which she can consume and digest grass. As grass is high in fibre, it fills up the rumen (stomach) quickly, causing the cow to feel 'full up' while at the same time still feeling hungry for nutrients (7, 8). Standing and eating for hours on end is also very tiring work and cows, who would naturally spend 12-14 hours a day lying down, face conflicting motivation to eat or rest (8, 51). Rye grass pastures, which are very high in nitrogen, can lead to increased urea in the cow's blood, making her feel sick and impairing her appetite (8).

The dairy cow's feelings can be summarised as “simultaneously hungry, tired, full up and feeling sick”. Professor John Webster (8)

Due to their inability to meet the metabolic demands of lactation, it is normal for cows to 'milk off their backs' in early lactation (draw on body reserves), resulting in a 'coat rack' appearance with the bones of the hips and spine protruding (8, 37). Dairy farmers consider this to be a normal metabolic situation in high-yielding dairy cows and have come to accept 'bony' dairy cows as typical, when in fact they are malnourished (79).



Modern dairy cows cannot consume enough food to satisfy their enormous milk output and normal bodily functions, resulting in malnourished animals with protruding bones

Photo©Ed Shephard

## Ketosis and Fatty Liver Syndrome

The abnormal demands on the cow's energy reserves often leads to ketosis and fatty liver syndrome (8).

Ketosis occurs when the cow's body fat begins to break down in an effort to bridge the 'energy gap' during early lactation (80). Body fat is transported to the liver where it's broken down to metabolites which are then utilised by the body tissues (80). Excess mobilisation of fat can lead to a toxic level of ketones (by-products of fat breakdown) accumulating in the blood, milk and urine, causing a loss of appetite and drop in milk yield (80). Affected cows may also exhibit nervous signs, which include excessive salivation, licking of walls or gates, poor co-ordination and aggression (80).

There is a limit to the amount of fat the liver can break down and process and when this limit is reached, the surplus fat accumulates in the liver (79). This 'fatty liver syndrome' reduces the normal function of the liver and, because it is a vital organ, many normal body functions are upset. Milk production, mastitis and fertility are all adversely affected by fatty liver (79).

## Milk Fever (Hypocalcaemia)

Milk fever is one of the most common metabolic disorders in dairy cattle, usually occurring just before, during or immediately after calving (81). It is caused by low blood calcium resulting from the high calcium demands of pregnancy and lactation. When the cow's blood calcium becomes too low to support normal nerve and muscle function, she collapses and is unable to stand until her blood calcium becomes normal again (82). Death can be rapid, with milk fever being the most common cause of sudden death in dairy cows (81). According to the National Animal Disease Information Service (NADIS), it can also cause calving problems and subsequent calf deaths (82).

## Grass Staggers (Hypomagnesaemia)

Grass staggers (or grass tetany) occurs when the cow's intake of magnesium is lower than her output (83). It occurs most commonly in lactating cows at pasture as grass can be very low in magnesium, especially rye grass, while the output of magnesium in milk is high (83). Clinical signs can appear very rapidly as cows do not store magnesium and must rely on a daily intake. Initially, animals become nervous and excitable, and then begin to stagger and fall over (83). This can quickly progress to convulsions, coma and ultimately death. The short

duration of clinical signs means that the mortality rate is high, as many animals are found dead before anyone notices they are ill (83).

## High Protein Concentrates

While the obvious solution to the problem of hunger and mineral deficiency in 'high yield' dairy cows would be to stop breeding animals with such a high milk output, dairy farmers are increasingly feeding their cows on high protein feed concentrates instead (8). These concentrates, which are usually made from GM soya and maize, are higher in calories than grass and thus provide more energy (8). However, they are also high in amino acids which further accelerate milk production (8). The result of this is increased milk production in the short term but loss of body condition, infertility and greater susceptibility to illness later on simply because it's not natural for the cow's body to work that way (8). The high starch and protein content of feed concentrates also cause digestive problems which lead to a reduction in appetite, bloating and lameness induced by laminitis (7, 8, 40).

## Lameness

Lameness is a major reason for culling of dairy cows, according to the latest figures, accounting for about 10 per cent of culls (5). Experts on animal welfare agree that it causes considerable pain and distress to the cow and impacts on all aspects of her life (5).

The average number of lame cows in a herd is 17 per cent – although at some farms this number is as high as 49 per cent (5). The Farm Animal Welfare Council stated in their recent report: "There is no evidence that the incidence of lameness has improved over the past decade." (5)

Lameness is extremely painful, often compared to the pain humans would feel if walking directly on the lunula (quick) of their nails (41). But because many lame cows continue to milk satisfactorily, they are forced to struggle on despite their severe pain (8).

Approximately 80 per cent of cases of lameness are due to foot problems and the remainder to leg damage (84). Sole ulcers, white line disease, digital dermatitis and laminitis are the most common foot problems and are caused by a number of complex factors (8, 40, 84). The majority of leg lameness is due to physical damage from badly designed cubicles and to injury at calving (84).



## Sole Lesions

Seventy-five per cent of sole ulcers and white line disease (cracks in the outer rim of the sole which allow dirt and bacteria to enter, causing abscesses) occur in the outer claw of the hind feet (8). This is directly linked to the presence of the huge udder which pushes the cow's hind legs apart and forces her to adopt an abnormal gait, putting extra pressure on the outer claws (37). Poor hoof quality, caused by nutritional deficiencies, can also predispose the sole to ulcers (39).

Both sole ulcers and white line disease cause chronic pain which gets worse with time (8). They are further aggravated by the long distances many cows must walk between pasture and milking parlour twice a day, and also by winter cubicle housing where many cows are forced to stand on concrete for extended periods of time (discussed further below) (8).

*“Most farmers only elect to treat the most severe cases, for example where there has been complete penetration of the sole, inducing deep pain from standing on concrete and scalding pain through exposure of sensitive underlying tissue to acid slurry.”*

Professor John Webster (8)

## Digital Dermatitis

Incidence of digital dermatitis, a painful bacterial infection of the foot, has increased in recent years due to a combination of factors (8) and is now a major cause of lameness (5). Many indoor cubicles were installed when the predominant dairy breed was the British Friesian, which commonly weighed around 550kg, but the increased popularity of the Holstein means that many cows now weigh in excess of 700kg and the cubicles are too small for them (41, 84). As a consequence, cows are often forced to stand with their hind feet in the slurry passage behind the cubicle (84). Slurry is highly acidic and softens the cow's feet, allowing bacteria to penetrate (84). In addition, most dairy farmers have switched from hay to silage as winter cattle feed (8). Whereas hay is composed of dry grass and other herbaceous plants, silage is wet, fermented grass which causes wet manure, contributing to hygiene problems when cows are housed indoors (8).

Roads, tracks and gateways which have rough, uneven surfaces can cause puncture wounds in the foot which are susceptible to infection (84). When



allowed to walk at their own speed, cows are able to place their feet carefully to avoid obstacles or rough objects. When forced to hurry, they bunch together and cannot choose where to step and are more likely to sustain damage from sharp stones (84). In many dairy units the ageing concrete floors have become broken or cracked, causing abrasions and punctures of the sole which are also easily infected (39). Although digital dermatitis can be treated with antibiotics, once it's established in a herd it is very difficult to eradicate (8).

## Laminitis

Laminitis is the acute or chronic inflammation of the soft tissue (laminae) between the bone and the outer horny wall of the foot which "results in great pain to the animal" (85).

To understand the pain of laminitis Professor Webster suggests "... imagine crushing all your fingernails in the door then standing on your fingertips." (8)

The soft tissue of the foot is well endowed with nerves and blood vessels which carry oxygen and nutrients to support hoof growth, and is therefore very sensitive to toxins in the blood (39). Feed concentrates which are high in protein and starch cause toxins to be produced in the rumen which are absorbed into the blood stream and irritate the soft foot tissue, causing inflammation and damaging blood vessels, especially in the feet (39, 41). According to Defra, there's a significant link between high protein diets and lameness (39, 41). Wet silage, which is high in acid and ammonia, can also lead to toxins in the blood which cause laminitis (39).

Laminitis can also occur when cows are being moved too much or forced to walk longer distances, especially on hard surfaces. This can lead to them being over-exercised and it has been associated with the acute onset of laminitis (41).



When a foot is affected by laminitis the blood flow is restricted, affecting hoof growth and resulting in softer soles which are more prone to disease, such as ulcers and white line disease, as well as punctures, leading to digital dermatitis (39).

### Cubicle Housing and Lameness

The inadequately sized cubicles in which most dairy cows spend six months of the year contribute to the high incidence of lameness in several ways. The problem of cows having to stand with their hind legs in the slurry passage has been outlined above. The small size of the cubicles also makes it difficult for modern cows to lie down comfortably, reducing the amount of time that they spend lying down and increasing the pressure on their legs and feet (5, 8). Some cows avoid the cubicles altogether and instead lie in the aisles or slurry passages where they become very dirty and increase their risk of hock abrasions, lameness and mastitis (discussed further below) (40).

Some cows may be forced to spend long periods standing or lying down in the passages because there are not enough cubicles for all of the cows in the herd (8). Due to the social hierarchy of the herd, subordinate cows may also be reluctant to lie in cubicles next to dominant cows, opting to stand or lie in the passages instead (5, 8). To overcome this problem, the FAWC recommends that indoor housing units contain five per cent more cubicles than the number of cows (5).

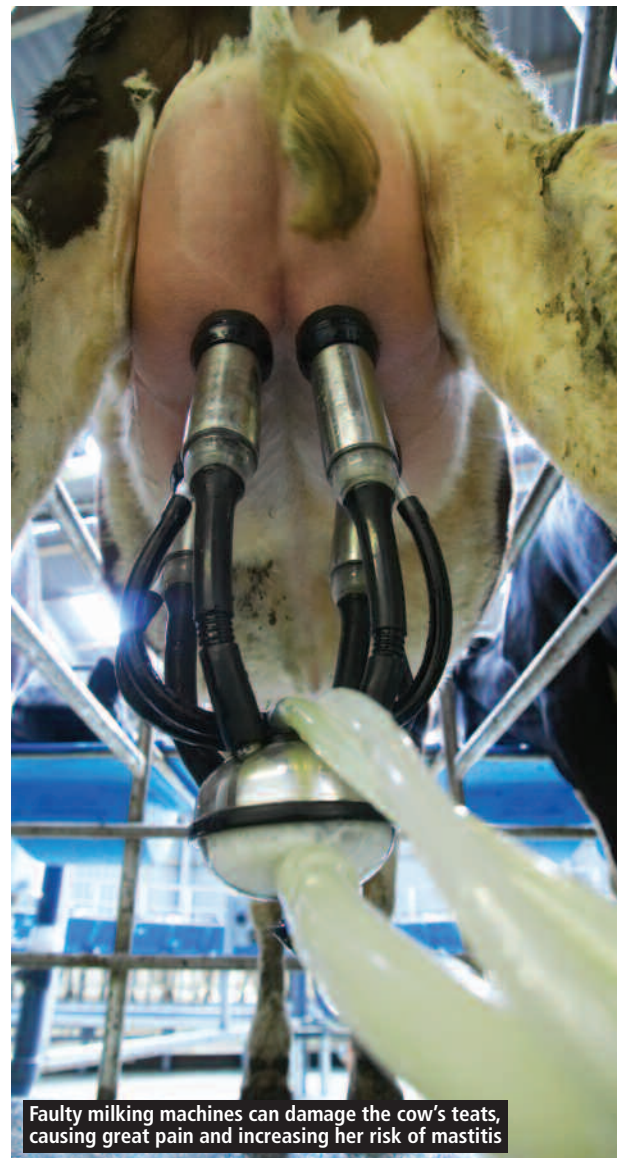
Many cubicle units have concrete bases because they are easier to clean, but they are also hard and uncomfortable and may lead to swelling of the knees and hocks as well as pressure sores (41, 85). Under The Welfare of Livestock Regulations 1994, dairy farmers must provide indoor cows 'access at all times to a well-drained and bedded lying area' (41). In practice, however, the bedding provided is often little more than a thin layer of sawdust or straw which does not provide adequate cushioning to keep the cow comfortable or prevent contact sores (5). The use of mats or cow mattresses in cubicles helps provide cushioning but must still be covered in bedding such as sand, straw or shavings to prevent contact sores and keep the mat dry (41, 77).

## Mastitis

Mastitis is a painful bacterial infection of the udder which affects around 30 per cent of British dairy cows at any one time, with one million cases of clinical

mastitis occurring in the UK every year (5, 8, 40, 57). Between 40 and 65 cows out of 100 suffer from clinical mastitis every year with around a quarter of these being repeat cases (57). While clinical mastitis produces obvious symptoms such as swollen, hard udders and discoloured or clotted milk, mastitis can also occur in a subclinical form with no visible changes to the udder or milk, making the number of these cases impossible to calculate (5, 37).

Mastitis is the most common disease in dairy cows and is a major reason for premature culling. In 2011, 17 per cent of cows were culled because of mastitis (57). And the disease is far from declining – as experts on farm animal health warn: "The prevalence of sub-clinical mastitis is greater now than in 1997." (5)



Faulty milking machines can damage the cow's teats, causing great pain and increasing her risk of mastitis

Mastitis pathogens (microscopic organisms causing the infection), of which there are over 200, belong to one of two categories: contagious or environmental (77). *Streptococcus uberis* and *Escherichia coli* (E.coli) are by far the most common causes of mastitis and are both environmental pathogens, thriving in dirty, wet bedding and poorly ventilated buildings (40, 77). Both contagious and environmental pathogens can be transmitted from cow to cow via the milking machine (77). The failure in combating environmental mastitis is largely due to the increase in herd size and the very high milk yield of the modern dairy cow (77).

Larger herds make it difficult to properly monitor each cow and her milk, allowing infected animals to enter the milking chamber and pass the infection on via the milking machine (77). Larger herds also produce more manure which accumulates in housing units, creating an environment in which bacteria thrive (77). High-yielding dairy cows who are only milked twice a day may leak milk on to the cubicle bedding when their udder becomes full, producing a bacterial haven of faeces, bedding and milk (77). The abnormal accumulation of milk in the udder also strains the udder tissues and predisposes high-yielding cows to mastitis (7, 37). The combined weight of blood, udder tissue and stored milk can result in a total udder weight of 50-75kg (77). In beef cows, who have normal sized (small compared to dairy cows) udders, the incidence of mastitis is a fraction of that in dairy herds (37).

Poorly designed and maintained milking machines are also recognised as major contributors to udder infection (39, 77, 86). Despite the major role they play on a dairy farm, milk machine maintenance is often neglected (77). This can lead to physical damage of the teats, which are richly endowed with nerves and therefore highly sensitive, and allow infection to penetrate the udder (77). Faulty machines can also actively transport bacteria into the udder (39, 77).

Housing can also lead to teat damage – large cows in narrow cubicles may push their legs through into the adjacent cubicle and accidentally crush their neighbour's teats (77). Disruption to an established herd, either by the addition of new members or splitting it into smaller groups, can result in fighting which may also cause teat injuries (77). Severe teat injuries, such as total teat amputation, are surprisingly common in dairy herds (77).

Summer mastitis, an acute illness of dry (ie not lactating) dairy cows, is common in temperate countries such as Britain. It occurs in 35-60 per cent of UK herds annually, affecting over 20,000 animals (40, 77). The main means of transmission is the sheep head fly (*Hydrotoea irritans*) which feeds on cattle blood (77). Damaged teats predispose cows to infection (40). Summer mastitis causes extensive, painful damage to the udder which becomes swollen, hot and hard and produces a thick, foul smelling secretion. Severely affected cows become lame from the pain, with extreme cases leading to abortion and death (5, 77).

Mastitis is usually treated with antibiotics applied directly into the teats but the problem with this is that antibiotic resistant bacteria evolve very quickly.

### **Pus**

When a cow is suffering from mastitis, her body produces large numbers of white blood cells which migrate to the udder to fight the infection (87). Many of these cells together with dead cells from the inner lining of the udder then pass out in her milk, and the greater the infection the higher the number of these 'somatic' cells in the milk (87). Dairy processors use somatic cell count to determine what price they pay farmers for their milk, imposing financial penalties for milk with high somatic cell counts (77, 87).

Latest figures show there is wide variation in somatic cell count with an average of between 100,000 and 250,000 cells/ml (5). These numbers have risen by 30 per cent since 1998 so it's evident this is a serious issue and the situation has worsened over the past decade (5).

Under EU regulations, milk with a somatic cell count as high as 400 million per litre may still be sold for human consumption (77, 87). Some farmers feed milk which exceeds this threshold to the calves (77).

### **Antibiotics**

Antibiotics are routinely used to treat mastitis and may be injected up the teat canal or administered orally (77). Intramammary (in the teat canal) injections, if performed carelessly, can cause teat canal damage which is extremely painful and increases susceptibility to infection. To reduce the amount of drug residue which enters the food chain, all antibiotics have a specified post-treatment milk withholding period stated on the product (77). Due to public health concerns, the EU imposes limits on



Mastitis, a painful infection of the udder which is widespread in British dairy herds, is usually treated by injecting antibiotics up the teat canal

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the maximum permissible level of antibiotics in milk, which is currently set at 0.0067 mg/litre (88). Dairy processors use random sampling to test milk for residues, penalising those farmers whose milk fails to meet these restrictions (77).

To help reduce the amount of mastitis in dairy herds, most farmers practice 100 per cent dry cow therapy – as recommended by Defra (77, 86). This involves injecting a long-acting antibiotic into all four teats of all cows, whether infected or not, as soon as they enter their dry period (77, 86). Cows that suffer from repeated cases of mastitis or have persistently high somatic cell counts are routinely killed (86).

## Infertility

The arduous life that dairy cows endure causes such rapid physical degradation that an alarmingly high number of young animals are killed due to infertility

(8, 40, 89). A killing rate of 25 per cent is normal for most dairy herds and poor fertility is the single biggest factor (31, 40, 90).

Although infertility in itself is not a welfare problem, it is an indicator of poor welfare resulting from physical exhaustion (8, 40, 89). Even the Milk Development Council acknowledged that “the drive towards increased milk yield has resulted, in part, to decreased fertility” (91).

To help combat the problem of infertility, the use of fertility drugs is now widespread on dairy farms in Britain (92, 93). Cows are given hormones to help increase conception rates, but also as a herd management tool to ensure that groups of calves are conceived and born around the same time (91, 92).

There is an obvious trend – fertility of dairy cattle is reducing as milk yields increase (89, 90). Stress could be one important cause and it’s been shown that (89):

- Fertility is lower after caesarian operations and when the clinical conditions of lameness, milk fever or mastitis worsen.
- Changes in social hierarchy or groupings increase the number of inseminations required per pregnancy and so does transport.
- Embryos collected from heat-stressed donor cows are less viable.
- Human-animal interactions negatively influence stress in cows which can lead to lower fertility.

## Stray electrical current

Stray electricity occurs when electricity is unable to make its way to the main earthing system and a natural path for it to travel back to earth in a milking parlour is the steelwork. Water, used in large volumes in the parlour and elsewhere (for washing surfaces but also drinking water for the cows), makes the problem even worse.

Electricity is used on farms to control the movement of cows, eg electronic gates in the milking parlour, electrified bars in front of self-feed silage or electrified cow trainers to make cows step backwards out of cubicles when they urinate or defecate (42).

Research shows cows are sensitive to just 0.5V (much more sensitive than people) and stray voltage results in cows receiving a tingle or a mild shock that disturbs their normal behaviour. And when a cow is



nervous she won't let go of her milk so it stays in the udder until the next milking (94). By the time the milk is released, it has been in the udder for several hours and apart from causing significant discomfort to the cow, it can lead to or aggravate mastitis.

During a recent random testing of UK farms, none of the 23 tested was completely clear of stray voltage (94). The most common problem is electricity from an electric fence running through steel barriers in the milking parlour. If stray electricity is present in a water trough, cows won't drink naturally, avoiding immersing their muzzle, but lap at the water instead (42).

## Markets

Surplus dairy cows, calves and all beef/dairy calves (that can't be used for replenishing the herd), are routinely sold at livestock markets. And when a farmer decides to sell his or her dairy farm, the herd of milking cows will be sold off, usually at a market.

Even if the farmer decides to go to the nearest market for dairy cattle, it can mean travelling across several counties (95). However, farmers do not necessarily take their animals to the nearest livestock market; they take them where dairy cows are most in demand to get a better price which means many

hours of travelling and stress for the animals.

On top of these long journeys, many cows sent to market must also endure the uncomfortable pressure of overly full udders.

It is common practice to send dairy cows to market or to agricultural shows with overstocked udders and freshly calved cows especially are in high demand (40, 96). This means that the cow is not milked on the morning of the sale or show so that her udder looks full, making the cow "more attractive to prospective buyers or judges" (40).

Despite this being against welfare advice and farmers are being warned against this practice, cows continue to be sent to markets with overstocked udders (97).

The Welfare of Animals at Markets Order 1990 prohibits an animal being exposed for sale in a market if she is likely to give birth while she is there, as well as The Welfare of Animals (Transport) Order 1997 which states that animals likely to give birth must not be transported (97). Despite these laws, and the well-established fact that the stress of transport and the market itself may induce labour or abortion, the FAWC highlight the continuing problem of pregnant animals being brought to market in their report (97).



Typical milking parlour where human labour is minimised to reduce costs



# Intensification and Zero-grazing

## The Situation in the UK

Dairy farming in the UK has changed dramatically in the last 40 years. 'Traditional' dairy farming (small herds with maximum access to outdoors) is the minority and has been replaced with increasingly intensive methods. This includes using selectively bred cow breeds for excessive milk yield, large herds and zero or limited grazing.

As well as the intensification of the industry as a general movement, there is also the threat that 'mega dairies' could become common in the UK. These are purpose built large scale farms, common in the USA, factory farming dairy cows. In 2010 a company called Nocton Dairies Ltd sought planning permission to build an 8,100 cow dairy in Lincolnshire. After a year of campaigning and mass objection from Viva! and other animal welfare groups and activists, environmental groups and activists, MPs, local people and the general public this application was rejected on environmental grounds, but there is the worrying discussion and argument from the dairy industry that zero-grazing and intensification has a place in the UK (98).

The fundamental cruelties involved in dairy farming such as forced pregnancy, separation of mother and calf, overproduction of milk and high chances of contracting mastitis, lameness and milk fever cause extensive suffering for the cow. These are still inherent in these intensive systems, but the cow is exploited even further, pushed to produce even more milk in a less natural environment for the convenience and profit of the farmer.

## Zero-grazing

Zero-grazing is feeding cattle with pasture plants or other food in a system that does not involve any time at pasture. But as the report by the European Food Safety Authority stated: *"If dairy cows are not kept on pasture for parts of the year, ie they are permanently on a zero-grazing system, there is an increased risk of lameness, hoof problems, teat tramp, mastitis, metritis, dystocia, ketosis, retained placenta and some bacterial infections."* (99)

Essentially zero-grazing and intensive dairy farming are an extension of the winter period where all cows are kept indoors. Cows are kept (usually in large herds) in sheds with rows of 'bedding' areas and may have access to go outside in yards. Some

intensive farms keep the cows tied in stalls and will only allow them to leave the stall to go to the milking parlour. Dairy cows in farms that operate limited or no time at pasture are deprived of their natural environment for much or all of their lives and endure the physical and mental strain of living indoors. As described earlier, cows have complex needs and this system not only further deprives them of their natural environment and the possibility to exhibit normal behaviour but also leads to abnormal behaviour and aggression. Most of the abnormal behaviours are the direct result of the artificial environment cattle are kept in and are absent in wild or semi-wild cattle (42).

Viva's investigation at 15 dairy farms supplying Cadbury showed that zero-grazing is already the norm in the UK. See what we found at [www.milkmyths.org.uk/animal-welfare/cadbury](http://www.milkmyths.org.uk/animal-welfare/cadbury).

## Why It Is Done

The manipulation of selective breeding for milk yield means that the modern dairy cow produces so much milk that she can't sustain her body needs on her natural (grass) diet alone. The cows are therefore fed a high protein diet, concentrated feed with high levels of cereals and soya, in an effort to keep the cow alive and over-producing. She will still most likely experience metabolic hunger due to the excessively demanding, over-producing udder and the simultaneous pregnancy. As the cow does not 'need' to go out to pasture for food, she can be kept indoors at all times. Effectively, it saves the farmer time (and therefore money and labour) not to let cows out to pasture and have to bring them back in for milking a number of times a day.

*"It makes it unprofitable to turn cows out to pasture where they simply cannot take in nutrients fast enough. This then leads to the practice of zero-grazing, whereby cows are confined through most or all of lactation and before the birth of their next calf."* (100)

## Effect on the Environment

Intensive dairy farming isn't just bad for cows but also has a negative effect on the environment. Concentrating the populations of cows in one place by having excessively large herds means millions of litres of slurry to dispose of, enormous amounts of greenhouse gases contributing to climate change, risking water pollution, diseases spreading and ammonia damage to wildlife. There will also be increased traffic to and from the farm for milk, feed, cattle and slurry. And producing the feed itself for the animals is also very detrimental:

*“The sheer size of the [dairy] industry has also placed great strains on the environment, mainly through the destruction of forests and permanent pastures to create vast tracts of maize and soy bean grown for livestock feed.” (100)*

## Justifications

The dairy industry is aware that people are increasingly taking an interest in where their food comes from and the welfare of farmed animals. Many people believe in the idyllic image of happy dairy cows in lush green pastures and so the idea of keeping cows in sheds all year round is appalling. The industry is aware that publicity of their intensive methods would shatter this image. Claims that as long as the cow has food, water, bed, shelter and company she is 'happy' are very simplistic. As discussed in this report cows are complex animals who suffer when deprived of their natural environment and farmed for their milk. The dairy cow has been changed to produce an extortionate amount of milk for increased profit and indoor farming is part of the system. Going out to pasture is increasingly being seen as a luxury, but this is the cow's natural habitat. Regardless of what the industry says, the cow is simply being treated like a unit of production rather than a sentient, individual animal. The nature of zero-grazing and indoor farming means denying the animal her natural food, natural environment (and space to exercise) and natural behaviour (exploration, group size and social hierarchy).

The only reason to zero graze or intensively farm animals is to lower production costs and increase product yield meaning higher profit.

## TB and Dairy: Badgers Suffer Too

Bovine TB (bTB) is an infectious and contagious disease of cattle caused by the bacterium *Mycobacterium bovis*. Although the main reservoir and natural host of *M. bovis* is cattle, humans and a wide range of mammals, including badgers and deer, are susceptible to the bacterium.

Although bTB is rarely fatal in cattle, with signs of infection usually only appearing in advanced cases, it does lead to reduced milk yields, making it a particular concern for dairy farmers looking to maximise their profits (101).

Badgers are often blamed for spreading the disease. However, in the most part it is cattle that have infected wildlife. The cause of blame lies more with intensified farming practices and political incompetence – an example of which was the rapid restocking and suspension of testing after the foot and mouth crisis of 2001, which is often blamed for allowing bovine TB to regain a foothold in England and Wales (102).

Also, animals that are worked beyond their limits – which, as this report clearly shows includes the modern dairy cow – are unsurprisingly more susceptible to disease. Fraud (103) and poor biosecurity have also been linked to the rise in bovine TB – and a 2010 investigation by Viva! showed that biosecurity precautions have been watered down at Welsh and English markets despite the supposed crisis (104). When you add in the infamously unreliable testing methods and mass cattle movements around the UK, it is not hard to see where the real finger of blame should point for the TB crisis – and it is not at badgers.

Despite the hysteria surrounding bovine TB, annual mandatory slaughtering of cattle fell by almost a quarter between 2008 and 2010 (105). This was all without killing badgers. However, sadly a 'trial cull' of badgers is currently in progress.

You can read more about bovine TB and badgers at [www.viva.org.uk/badgers](http://www.viva.org.uk/badgers).

## Not just cows

Whilst cows produce most of the milk the UK consumes it would be wrong to think that other animals are not farmed – and exploited – for dairy.

Goat's cheese and milk are becoming increasingly popular amongst consumers, with many mistakenly presuming that the welfare problems inherent in the milking of dairy cows do not apply to goats.

The truth is that British goats suffer as much as dairy cows: with their babies taken away from them almost immediately (the females to replenish the herd and the males usually killed at birth or sold for slaughter in the growing ethnic meat market).

Unwanted billy goats are killed in a number of ways on British farms. The only stipulation by Defra is that it is done “humanely” and by someone who is familiar with killing goats (106). Some may be killed with an overdose of barbiturates by a vet (although this costs money). Others are killed with firearms, such as rifles or even shotguns. Some are hit on the back of the head with a heavy object. Or, swung by

their legs, their heads are smashed into door posts (sometimes repeatedly if unconsciousness is not achieved on the first blow). The baby animal then has his throat cut. It is not uncommon for these dead billy goats to be collected and fed to the hounds at the local hunt (106).

Around 70,000 goats are farmed for milk each year in the UK (107) and over two million litres of goat's milk are consumed in the UK (108).

Goats are animals uniquely suited to thriving on tough, mountainous terrains but are increasingly kept indoors, for their entire lives, in massive zero-grazing units. In the UK, the dairy industry reports that there's only one large scale goat milk producer who allows grazing (109). This means that all the other large scale operations in the UK (including most in Northern Ireland) are now indoor, intensive zero-grazing units (110).

Some reports have said that the market for goat dairy products is increasing by 20-30 per cent a year



Dairy goats at a large scale goat farm

## The Dark Side of Dairy – A Report on the UK Dairy Industry

in the UK (111, 112). It is believed that the market is worth in excess of £50 million a year in the UK alone (112, 113).

The dairy farming of sheep is less practiced in the UK, but there are still around 200 flocks of dairy sheep, totalling 12,000 ewes (114). As with goats raised for dairy, dairy sheep are often kept inside; the excuse being that they are not as 'hardy' as breeds raised for meat (115). Of course, keeping sheep in one place makes milking easier for the farmer.

Production from conventional sheep breeds is only 100 to 200 pounds of milk per lactation. However, specialised dairy breeds can produce 400 to 1,100 pounds of milk per lactation (116).

Unwanted male lambs will be killed and disposed of in exactly the same way as billy goats deemed

surplus to requirements. Both goats and sheep kept for dairying can suffer an extensive range of diseases – many of which are exacerbated by zero-grazing.

The rush to exploit animals for their milk has seen others added to the ranks of the milking machines. Camel milk is the latest fad to hit British stores. Most is from the Middle East, where animal welfare may not even meet basic UK standards. Photos from one camel farm in the Netherlands (currently Europe's sole dairy camel farm) appears to show animals that are mostly housed, and in a climate that is completely alien to them (117).

Concern has also been raised about the welfare of water buffalo used to produce milk for Mozzarella in Italy, with reports that very young males are so unvalued that many are just dumped by the roadside to fend for themselves.

To read about Viva!'s investigation of goat farming, Nanny State, see [www.whitelies.org.uk/goats](http://www.whitelies.org.uk/goats).





## Farm Assurance Schemes

Food scares such as BSE, Salmonella and E. coli, as well as concerns over GMOs, antibiotics and pesticides, have led to an increase in the supply of organic milk and many farmers have adopted one of the farm assurance schemes. However, sales of organic milk now represent only 2.5 per cent of the overall liquid milk market (118).

Many people who choose to pay the extra for milk certified under one of the schemes below do so because they believe the animals have a much higher standard of living. However, all these dairy cows are still subjected to the exploitative nature of the industry.

### Soil Association Organic Standards

In order to receive Soil Association certification for their milk, dairy farmers must comply with specific standards set down by the organisation. Certified farms are inspected annually by the Soil Association to ensure that these standards are being upheld.

While most of the standards set out by the Soil Association are aimed at improving the quality of the milk, certain standards do pertain specifically to animal welfare. Highly invasive practices such as embryo transfer and ovum pick-up are prohibited but artificial insemination is allowed without any regulations governing the breed (and therefore size) of the sire (119). Fertility hormones must not be used to synchronise calving but may be used to bring a cow with failing fertility into heat (119). Calves may only be housed individually until seven days old and then must be group housed. Disbudding is still permitted up to two months old and castration with a rubber ring without anaesthetic is allowed in the first week of life (119). They may not be taken to market under one month old but beyond that age they may endure journeys of up to eight hours to market or the abattoir.

Cows on organic farms are still impregnated every year to provide a continuous supply of milk and endure the trauma of having their calves taken away within 24-72 hours of birth. They also carry the dual load of pregnancy and lactation for seven months of every year, just like those on conventional farms. These two welfare insults are inherent in dairy production and cannot be eliminated. The birth of male calves is also a problem for organic dairy farmers using high yield breeds such as Holsteins and



Many issues dairy cows experience – calf removal, unnaturally high milk yield, simultaneous pregnancy and lactation and the health problems associated with this – are the same for all cows, organic or not

Photo©Rob Hill

the scheme allows these 'unwanted by-products' to be shot shortly after birth (until 2015), or to be raised for rose veal (119).

### RSPCA Freedom Foods Scheme

The RSPCA's Freedom Foods standards for the welfare of dairy cattle provide little more than the legal minimum for cows and their calves. As in organic farming, cows suffer the repeated trauma of having their calves taken away shortly after birth and face the gruelling workload of pregnancy and lactation. The only practices of conventional farming which are prohibited are embryo transfer and ovum pick-up (120). Calves may still be housed individually up to eight weeks old and can travel to market as young as seven days old, enduring journeys up to eight hours long (120). The standards on the removal of supernumerary teats and disbudding do offer slightly higher welfare than the legal minimum, with local anaesthetic being required for both procedures under the scheme and the upper age limit set for five weeks (120). However the fate of male calves is ignored under this scheme, leaving farmers free to kill off any unwanted calves immediately after birth.

The welfare benefit provided to dairy cows by the RSPCA Freedom Foods scheme was evaluated in a study by Bristol University which investigated the

welfare of cows on 40 Freedom Foods approved farms and 40 non-Freedom Foods farms:

*“There was no difference in overall welfare score between Freedom Foods and non-Freedom Foods farms. Thus, we were unable to conclude that membership of the Freedom Foods scheme ensured better overall welfare than non-participating farms.”*

Professor Webster (8)

## Red Tractor Farm Assurance

The Red Tractor logo on dairy products signifies that the milk was produced in the UK on a farm which meets the standards of the Red Tractor Farm Assurance Dairy scheme. However, these standards are simply the UK and EU legal minimums and nothing more! All of the farming practices outlined in this report are acceptable under this scheme (121). The only thing this logo guarantees the customer is that the product was produced in Britain and the farm was not breaking any laws, at least not on the day it was inspected.

## What's next?

The future of the dairy industry is entirely dependent on consumer demand. With the EU removing milk quotas (a limit on how much milk a country can produce) in 2015, it is predicted that by 2020 Europe will be producing 50 per cent more milk than it is now (122). The future of dairy cows is literally in our hands – if we choose to consume dairy products, millions of cows and calves will suffer and die every year.

It's up to us to decide the fate of dairy cows and their calves.



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