



Viva!

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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, 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, regardless of the farming system. The enormous physical demand placed on the cow by the dual load of pregnancy and lactation is also an intrinsic part of dairy farming.

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 vivahealth.org.uk.

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 scarydairy.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 [youtube.com/user/vivaorg](https://www.youtube.com/user/vivaorg) and on our website scarydairy.org.uk.

Our short video The Dark Side of Dairy provides an authentic overview of the British dairy industry, watch it at [youtube.com/user/vivaorg](https://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 'byproducts' 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 scarydairy.org.uk or go to our YouTube page [youtube.com/user/vivaorg](https://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 grows 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.



Face Off: Dairy (2018) A dairy industry exposé: death, cages and downers

Bedraggled and depressed, an emaciated cow on Halswell Farm, South Devon, limps by with her head hung low. She instantly shatters the idyllic image of a happy and content cow out grazing the green fields of England. She is what dairy farmers don’t want us to see. One of many they don’t want us to see – cooped up in sheds; lying in their own excrement; suffering from complete body breakdowns.

Over the years investigators for Viva! Campaigns have shone the spotlight on countless farms, but in our biggest dairy exposé to date, as featured in the Daily Mail, an even greater shadow has been cast over the inherent exploitation of motherhood in the dairy industry. What the footage we obtained demonstrates is that behind every glass of milk or slice of cheese lies a hidden story of pain and suffering – forced pregnancies; swift mother and calf separations and milk theft.

During the month long investigation our camera operators filmed on twelve separate farms, supplying some of the biggest brands in Britain – including Arla (the parent company of Anchor, Lurpak and Cravendale), M&S, Tesco and Cadbury – to expose the realities of Britain’s so called ‘highest welfare standards in the world’. What we found sparked outrage across the board.

Whilst at Fairfield Farm, South Devon, investigators discovered what the industry calls a ‘downer’ cow, so ill she couldn’t even lift her head and was left to die on a cold concrete floor. ‘Downer’ is an industry term given to spent dairy cows suffering from nerve paralysis caused by calving difficulties that impacts her ability to stand unaided. With her hind legs shackled together by ‘hobbles’ her distorted udders were milked dry. She was literally dying for ice cream, Auntie Moo’s Devonshire ice cream.



At 12 years old she was practically ancient, given most dairy cows are killed for cheap beef around the age of five or six (just a quarter of their natural life expectancy). Horrified by what they found the team called an emergency vet to the scene at about 3am, who agreed her suffering was not insignificant and authorised her death. He administered a lethal injection and at 4:55am her eyes rolled back as she finally found peace.



On the same farm investigators also found four calves, more than 12 weeks old, confined to solitary hutches designed to shelter, according to Defra recommendations, much younger calves up to eight weeks after birth. They had little room to turn around, let alone exercise – without food, without water and without their mums.

One calf, found at Mile Elm Farm in Wiltshire – a supplier of Cadbury, was just days old and completely alone. She was a teetering little thing left in complete isolation, with no other little calves either side for companionship and just metres away from her bellowing mother across the yard. For any compassionate being, let alone any mother, it's a painstaking sight to bear witness.

Everywhere our investigators pointed their cameras on Britain's dairy farms we found depression, desolation and deprivation. Dairy farming is an abject abuse of motherhood and the instances

described above are not in isolation. Whatever aspect moves you we urge you to share it.

Take the Face Off challenge: viva.org.uk/dairy



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

Goat's 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 scarydairy.org.uk or go to our YouTube page [youtube.com/user/vivaorg](https://www.youtube.com/user/vivaorg).



THE DAIRY INDUSTRY IN BRITAIN

Size and Numbers

There are currently around 1.9 million dairy cows living on the UK's 13,000 dairy farms (1, 2, 3). As cows must give birth to a calf in order to produce milk, there is also over a million dairy calves born in the UK each year. The total number of dairy cattle in the UK is over 3.2 million (4). Cows are kept in an average herd size of 142 (2) but this varies hugely – from small family farms to big intensive ones.

Ninety per cent of dairy cows in the UK are the Holstein breed (the black and white cows) and other breeds include Friesian, Jersey and Ayrshire cattle (4). 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 7,905 litres (26 litres per day) in 2015 (4). There has been an increase of almost 1,000 litres of yearly milk yield per cow just between 2005 and 2015 (2). 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 six to ten times more than a cow would naturally produce to feed her calf (6).

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 around their fourth lactation – at only five or six years old (4, 5) – when they can naturally live to be at least 20 (6, 7). There are even cases of dairy cows in sanctuaries living into their 30s.

Dairy farming is the single largest agricultural sector in the UK worth £8.8 billion of sales at wholesale, with annual milk production over 14 billion litres (1,2).

The six major organisations leading the UK dairy industry are:

- Muller UK & Ireland Group, whose profits in 2016 reached £536.5 million (8).
- Arla Foods UK – a European company with 2017 turnover of 10.3 billion EUR, of which 288.4 million EUR was pure profit (9).
- Dairy Crest – a UK company with 2017 turnover of £416.6 million, of which £68.3 million was profit (10).



- Glanbia Cheese, a joint venture of a multinational cheese concern Glanbia, with overall profits of €42.8 million from their joint cheese ventures in 2017 (11).
- Dale Farm – a UK co-op – with 2017 profit of almost £10 million (12).
- First Milk, a UK dairy co-op, with the 2017 turnover of £206.5 million and profit of over £6 million (13).

Promotion

The British dairy industry spends millions on advertising every year – in 2015 it was £137 million (14). The biggest dairy giants make sure they spoon-feed the public their message so for example in 2016, Cadbury spent almost £23 million on adverts, Müller promoted their yoghurts with almost £20 million and Danone tried to convince people to buy their products with £13.6 million (15).

The UK dairy industry is supported and promoted by AHDB Dairy and Dairy UK.

AHDB Dairy 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 £8 million coming from a statutory levy paid by dairy farmers on their milk sales, grants and

other fees (16). One of their main strategies is “protecting and promoting the image of dairy” (16) and to help achieve this, they run two ‘educational’ websites for the public which paint idyllic pictures of dairy farming and promote dairy as a key food group.

Dairy UK is the trade association for the British dairy supply chain. It brings together farmers, dairy co-operatives and processors, manufacturers and bottle milk buyers. Among its stakeholders are parliamentarians, Government departments, policy and regulatory bodies, industry organisations and the media (1). Dairy UK also owns The 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 professionals and schools (1). Not only that but they also organise conferences and presentations for healthcare professionals and academics to make sure their message is heard.

Targeting Children

On top of that, there’s the School Milk Scheme, as Dairy UK describes: “The dairy industry pays careful attention to the school and nursery milk market as it helps to cultivate consumption habits that last a lifetime. The EU and the UK authorities provide support for milk consumption at this age; free milk is available to under-fives in registered nurseries and subsidised milk is available for a number of pupils in primary and secondary education.” (1)

Dairy UK’s activities also include lobbying and it played a role in convincing MEPs to vote for a new version of School Milk Scheme, which now includes a number of flavoured dairy products and has an increased budget of €100 million. Following the Brexit vote, Dairy UK made sure it secured a position in the Defra (Department of Farming and Agriculture) working group on the future of the School Milk Scheme post Brexit (17).

The Dairy Council offers a vast array of materials targeting young families, teachers, healthcare professionals and children, all meant to condition people from the moment they’re born into thinking that dairy is essential for good health.

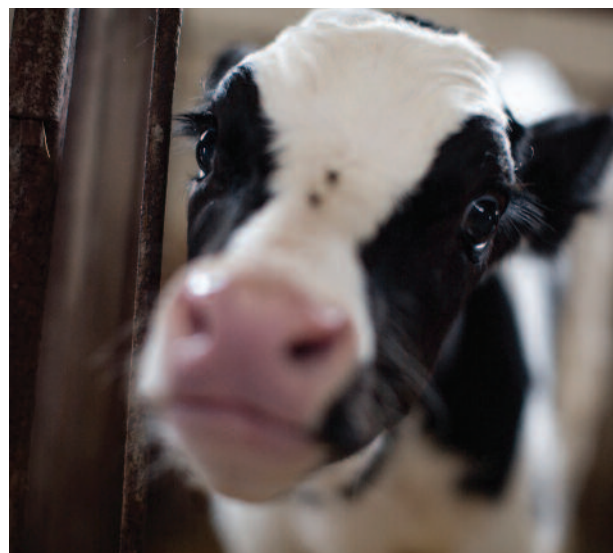
All these campaigns and materials avoid mentioning

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 only human breast milk until weaning, are also conveniently omitted.

The Future?

Dairy farming relies heavily on farm subsidies and when the UK leaves the EU, these subsidies will have to be matched by the UK government for the industry to survive (3). At the same time, more and more people are going dairy-free or at least thinking about it – according to a survey conducted by The Grocer magazine (18), almost a quarter of shoppers are thinking about cutting back on the amount of dairy they consume. This figure is even higher among the younger generations, rising to 37 per cent of the total number.

The market for dairy-free products and milk alternatives is growing at a rapid speed and is projected to grow even faster (18). The dairy industry keep launching new campaigns and advertisements to try to convince people to keep buying milk and dairy products but with growing awareness of the reality of dairy farming, the public are slowly moving away from dairy.



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 (19). Selective breeding over the millennia caused dramatic physical changes to domestic cattle, to the extent that they are now considered a separate species (19). Wild aurochs became extinct in Britain in the Bronze Age, with the last members of their species killed by hunters in Poland in 1627 (19).

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 800 years (20). 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 (21). 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 (21). These mother and daughter units are connected by lifelong friendships to other, unrelated cows to form a herd (21). 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 (22). These social bonds are constantly reinforced through mutual grooming (22).

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 (20, 21). 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 (20).

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 (21, 22). Males are weaned at around 12 months old and would then leave the herd and join a bachelor herd (21). Both males and females can easily live to be 20 years old (2), 21, 22).



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 (19). 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 (19).

Senses

Cattle have a wide field of vision but are poor judges of detail and distance (19). Contrary to popular belief, cattle can also see colour although they have a deficiency towards the red end of the spectrum (19). 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 (22). 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.



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 (6, 7)

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 (6, 7). Most dairy heifers are impregnated for the first time when they are between 14 and 20 months old, giving birth to their first calf nine months later (23). 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 (23).

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. The main choice farmers make is whether to use dairy or beef semen (which can result in calving difficulties) and whether they want to use more expensive sexed semen to guarantee the cow will give birth to a female calf (23). The use of more invasive practices such as multiple ovulation therapy and embryo transfer is increasing steadily in the UK and Ireland (24).

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 (7, 21) – 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 (26). Both the cow and calf 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 (7, 22, 26). 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 (23, 27). Professor John Webster describes the removal of the calf as the "most potentially distressing incident in the life of the dairy cow" (27).

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 (7). Her average milk yield will be around 26-



29 litres a day (2, 4) but for some cows it can be up to 50 litres a day – this means five to 12 times more than a calf would drink, so her whole body and udder in particular is forced to work unnaturally hard (24). 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 (28). 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 (6). This greatly enlarges the udder and leads to lameness in her hind legs and predisposes her to mastitis (a painful infection of the udder) (7).

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 (29). 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 (29). 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 (28)

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 (23) – 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) (4, 5, 23).

Housing

The dairy cow's physical problems are compounded by being kept indoors for at least six months of the year. The majority of dairy herds in the UK currently graze from April to October (weather permitting but often it's much less time) and spend the rest of the year housed indoors in cubicle units (3, 30). 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 (2, 7, 31). 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, 32).

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) (7). Wet silage causes wet manure and the resulting poor hygiene conditions contribute to mastitis and lameness (7) – 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) (7, 33, 34). 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 (33). 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 (33).

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.

AHDB dairy even has a dairy herd culling calculator online enabling farmers to count their herd's cull rates (35). 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' (36) 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.

IT'S ALL ABOUT REPRODUCTION

Reproduction is at the heart of the dairy industry as a cow has to give birth to a calf 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, inserting one arm into the cow's rectum for examination whilst passing a catheter through her vagina, cervix and depositing the semen in her uterus (37). This is an uncomfortable, stressful experience for the cow which can result in injury if carried out by an untrained or inexperienced person (32). According to The Veterinary Surgery (Artificial Insemination) Order 2010, artificial insemination is one of the procedures non veterinarians are permitted to carry out (38). 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 and it eliminates the problem of injuries a bull can cause or infections he can carry. 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 both dairy and beef breeds in almost equal measure (40). 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 (24). 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 487,000 born every year, about 95,000 are killed on farms shortly after birth (41). In 2015, around 2,000 calves were exported live to mostly to European countries for veal production and 392,473 bull calves remained in the UK to be killed within a few months (41). The fate of dairy calves is discussed further in 'Calves – Unwanted By-products' page 16.

There has been an increase in the use of sexed semen in the past few years and it now accounts for about 18 per cent of all Holstein bull semen bought by dairy farmers (41). Using sexed semen increases the likelihood of a female calf being born but there's no guarantee as it usually contains about 90 per cent female sperm and 10 per cent male sperm. It is also more expensive than non-sexed semen so it's not the default option and although more female calves are born than male, the difference in numbers is minor (41).

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 (32). 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 (25).

Embryo collection: 'high quality' cows are given a treatment to increase ovulation and then artificially inseminated in the usual manner (37). The resulting embryos (usually between seven and 12) are flushed from her uterus using a catheter type instrument (37). 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 (37). The procedure is so painful that UK law requires the use of an epidural (43).



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 (43). 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". (43)

Surrogate cows receiving the embryos, whether direct from the 'donor' cow or from in vitro fertilization, are artificially brought into heat (37). 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 (37). The use of an epidural is compulsory (43).

Ultrasound scanning

Over the past decade the use of rectal ultrasound to detect pregnancy has become common on British dairy farms (32). This involves inserting a long probe (about the thickness of a finger) into the cow's rectum until it lies over her uterus (32). Careless insertion or removal of the probe can damage the rectal tissue and internal organs, causing great pain (32). 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 (44).

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 (32, 37). This mismatch can result in severe injuries to the cow during calving, including internal haemorrhage, nerve paralysis and pelvic fracture (37, 45). 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 (45).

'Downed' cows require immediate attention to prevent injuries, which may only be temporary, from causing permanent damage (32). A cow may 'go down' because of temporary nerve paralysis caused 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) (42, 46). Several different types of lifting gear are used to get 'downed' cows on their feet again. These include (46):

- 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 (46).

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 (28, 32). 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 (32), 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 (7, 21, 47). 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 (7, 26). 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 (26).

The cow attempts to get to her calf and it's not uncommon that cows break separation fences to be reunited with their calves (34). 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 (34).

However, there are many more issues surrounding calves and calving – currently around 42,000 calves die on British farms every year due to health issues but it's estimated that the number is higher as stillborn calves and those that die shortly after birth may not be recorded (47). Only about 80 out of

every 100 dairy heifers born alive make it to their first pregnancy (47).

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 (4, 23, 32). They are allowed to suckle from their mothers for the first few hours of their 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 or they must be given colostrum in several feeds if they're removed from their mother immediately after birth (7, 32, 47).

Welfare regulations require that each calf must receive colostrum within the first six hours of life (47, 48). However, they are then (usually between 12 hours to two days) separated from their mothers and fed commercial milk replacer (based on whey or whey



protein concentrate, by-product of the manufacture of cheese) or surplus milk, either from an artificial teat or from a bucket (7, 32, 48). Nevertheless, it's been revealed that many calves are not being fed enough – often just once a day – and that water is often not provided to calves in the first few weeks of life despite it being a legal requirement (47).

Although the main motivation for removing the calves is financial – farmers want to sell as much of 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 (48).

In the first few weeks of life calves, like all infants, are very susceptible to disease, with up to 21,500 calves born each year dying in the first six weeks of their life (47). 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 (32, 48). For this reason, artificially-reared calves are weaned completely on to solid food by five weeks of age (48), 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 (48). However, healthy young calves are very energetic and need to play and socialise with other calves (7) 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 pneumonia – the most common disease of weaned calves (32, 48). 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 (32, 48). They will be inseminated when they are just over one year – most of them when they're only 16-18 months old (4), 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. 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 (48).

The dairy/beef cross-breed female calves sold, again through a livestock market, to be reared for beef at various 'finishing' farms. These farms operate different systems – intensive (where animals never graze), semi-intensive (where animals sometimes graze) or extensive (where animals graze a bit more) (49). However, the intensive finishing farms are on the rise, quickly spreading across the UK (50).

Male Calves

Male calves will never produce milk and therefore are of no use to a dairy farmer. All bull calves are removed from their mothers after several hours or maximum two days, housed in stalls or hutches and fed milk replacer just like female calves. Most – about 80 per cent – will also be sold on to beef farms through livestock markets but about 20 per cent are killed on farm as a useless by-product (41).

Pure dairy breed male calves are seen as very unprofitable whilst dairy/beef cross-breeds have a marginally more value placed on them. However, as

they will only produce 'low quality' beef or veal they are raised in intensive systems (49, 52). After being separated from their mothers they are confined in buildings and yards for most of their lives – which is usually between five months and a year and a half, depending on whether their meat is intended to be sold as veal or beef (50, 51, 52). High mortality rates in these systems are common as it is not financially worthwhile for farmers to strive to keep them alive (7).

The rest of the male calves are shot shortly after birth – the unwanted by-products of milk production (41). 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 around 95,000 bull calves are shot within hours of birth in the UK (41). 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 scarydairy.org.uk or our YouTube page [youtube.com/user/vivaorg](https://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 legal. 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 may also be 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 (6, 7).

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 (52, 54, 55).



UK Veal Production

Although the veal crate was banned in the UK in 1990 due to the immense cruelty involved, the UK 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 (7, 56). From birth, calves must be fed a diet which contains sufficient iron to avoid anaemia (7, 56) 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). A recent report revealed that many calves are left hungry and thirsty – only fed once a day and not given fresh water despite it being a legal requirement (41). All calves should be fed at least twice a day but it's still a far cry from their natural feeding regime when they would suckle from their mother 8-12 times a day (41).

Rose veal calves are slaughtered at around six to eight months of age (52, 54). The market for veal in the UK remains relatively small but a lot has been invested in boosting it (41, 55). In 2015, 392,000 bull calves were kept for veal or low quality beef (41).



Continental Veal Production

In January 2007 veal crates were banned across the EU and since this date, EU veal production came in line with UK regulations. As in the UK, all calves will be group housed after eight weeks of age, however, under EU law, farmers are not obligated to provide bedding for calves which has been shown to cause joint swelling and other problems (53, 55). 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" (57).

"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 (57)

No dairy calves are allowed to enjoy these conditions.



Photo©Animal Aid

Unwanted calves are sold off at livestock markets which is very stressful for them and involves a long journey and rough handling

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 lengthy journeys to market and on to the purchasing farms. For many unfortunate male calves this means long journeys to veal farms in Europe (41).

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 (58).

'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 (58). Calves less than two weeks old are particularly susceptible and can suffer mortality rates greater than 20 per cent following transport (59). 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) (59).

"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 (60)

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 (61). 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 (61).



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 (32). 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) (32, 62). Both these procedures can be legally performed by an unqualified person (63). Cautery disbudding causes severe pain which can last for several hours, with lower-grade pain and sensitivity continuing for at least 24 hours (62). Under the Protection of Animals (Anaesthetics) Act 1954/1964, it can only be performed with the use of a local anaesthetic (63). 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 (62, 63). The caustic paste can also leak on to surrounding skin or into the eyes, causing immense pain (62). Defra recommends that chemical disbudding should not be used although it is legal (64).

Castration:

Male calves sold or raised for beef may be castrated to prevent aggression (32). Three methods can be legally used to castrate calves in the UK (32, 63, 64):

- 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 using an 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 (32) 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 (32). 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 (65). Up until three months of age these teats may be cut off using sharp scissors without anaesthetic (32, 63, 64). After this age they must be removed by a veterinary surgeon (32, 63).

All the above are stressful and painful procedures which 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 24-44 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 (28)

This enormous physical burden takes its toll on the cow's body and after only three to four lactations she is culled, either due to infertility, mastitis, severe lameness, injury or because her milk yield has dropped (4, 7, 23). 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 (7, 66)

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 (7). 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 (34).



Metabolic Disorders

Hunger

The high-yielding dairy cow is a large animal who simply cannot consume enough food to sustain her enormous milk output as well as her other bodily functions, leaving her in a constant state of 'metabolic hunger', also known as negative energy balance (6, 7, 68, 69). 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 (6, 7). 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 (7, 42). 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 (7). To bridge the nutrition gap, cows are given concentrated feeds but that leads to a number of other health issues described below.

The dairy cow's feelings can be summarised as "simultaneously hungry, tired, full up and feeling sick". Professor John Webster (7)

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 (7, 28). 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 (67).

Ketosis and Fatty Liver Syndrome

The abnormal demands on the cow's energy reserves often leads to ketosis and fatty liver syndrome (7).

Ketosis occurs when the cow's body fat begins to break down in an effort to bridge the 'energy gap' during early lactation (70). Body fat is transported to the liver where it's broken down to metabolites which are then utilised by the body tissues (70).

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 (70). Affected cows may also exhibit nervous signs, which include excessive salivation, licking of walls or gates, poor co-ordination and aggression (70). It is thought that



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

at least 50 percent of dairy cows suffer from ketosis in the first month of lactation (68).

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 (67, 69). The resulting '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 (67).

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 (71). It is caused by low blood calcium resulting from the high calcium demands of pregnancy and lactation. When the cow's blood calcium levels drop too low to support normal nerve and muscle function, she collapses and is unable to stand until her blood calcium is replenished, usually from a calcium solution infusion (71). If left untreated, cows can die of milk fever in 12-24 hours (71). According to the National Animal Disease Information Service (NADIS), it can also cause calving problems and subsequent calf deaths (71).

Grass Staggers (Hypomagnesaemia)

Grass staggers (or grass tetany) occurs when the cow's intake of magnesium is lower than her output (71). It occurs most commonly in lactating cows at pasture as grass can be very low in magnesium, and high levels of potassium and ammonia from fertilisers can also inhibit magnesium absorption (71). 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 (71). 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.

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 cows producing ever-more milk and cease the farming practices aimed at extracting maximum profits from the animals, dairy farmers are increasingly feeding their cows high protein feed concentrates instead (7, 68, 69). These concentrates, which are usually made from GM soya and maize, are higher in calories than grass and thus provide more energy (7). However, they are also high in amino acids which further accelerate milk production (7, 68). 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 (7). 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 (6, 7, 32, 68).

Modern dairy farming means that up to 50 per cent of dairy cows are affected by some form of metabolic or infectious disease around the time of calving (69).

Lameness

Lameness is a major reason for culling of dairy cows, according to the latest figures, accounting for 8.4-11.4 per cent of culls (4). 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 22-31.6 per cent – although at some farms this number is as high as 65 per cent (4, 72). The industry's own health and welfare group admits that the levels of lameness are high and recording poor (4).

Lameness is extremely painful, often compared to the pain humans would feel if walking directly on the lunula (quick) of their nails (33). But because many lame cows continue to milk satisfactorily, they are forced to struggle on despite their severe pain (7). Most lameness is caused by damage or infection of the foot (4, 73). Sole ulcers, white line disease, digital dermatitis and laminitis are the most common foot problems and are caused by a number of complex factors (4, 7, 32, 73). A number of foot and leg issues also arise from too small or badly designed cubicles that make cows stand for a lot longer than is natural for them or they choose to lie in dirty passageways instead (74).



Sole Lesions

More than three quarters of sole ulcers and white line disease (breakdown of the outer rim of the sole which allow dirt and bacteria to enter, causing abscesses) occur in the outer claw of the hind feet (4, 7). 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 (28). Poor hoof quality, caused by nutritional deficiencies, can also predispose the sole to ulcers (30).

Both sole ulcers and white line disease (accounting for 69 per cent of lameness cases in dairy cows) cause chronic pain which gets worse with time (4, 7). They are further aggravated by the uneven surfaces cows have to walk and stand on and by housing in sheds where the floors are hard and wet with urine and feces (7, 73, 75).

"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 (7)

Digital Dermatitis

Digital dermatitis, a painful bacterial infection of the foot is responsible for 25 per cent of lameness in UK dairy cows (4). Many indoor cubicles were installed when the predominant dairy breed was the British Friesian, which commonly weighed around 550kg, but the majority of dairy cows are now a much bigger Holstein breed and the cubicles are too small and short for them (33, 74). As a consequence, cows are often forced to stand with their hind feet in the slurry passage behind the cubicle (74).

Slurry is highly acidic and softens the cow's feet,

allowing bacteria to penetrate. In addition, most dairy farmers have switched from hay to silage as winter cattle feed (7). 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 (7).

Cows permanently housed in sheds have higher rates of digital dermatitis due to the filthy conditions and common foot injuries but cows that are allowed out on pasture also suffer – walking on uneven surfaces with sharp stones, particularly when being herded and rushed, can lead to hoof puncture wounds which open it to infection (73, 74). 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 (30). Although digital dermatitis can be treated with antibiotics, once it's established in a herd it is very difficult to eradicate (7).

Laminitis

Laminitis is the acute or chronic inflammation and degradation of the soft tissue (laminae) between the bone and the outer wall of the hoof, resulting in acute pain and severe lameness.

To understand the pain of laminitis Professor Webster suggests "... imagine crushing all your fingernails in the door then standing on your fingertips." (7)

The soft tissue of the foot has a dense network of nerves and blood vessels which carry oxygen and nutrients to support hoof growth, and is therefore very sensitive to toxins in the blood (30). 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 (30, 33). According to Defra, there's a significant link between high-protein diets and lameness (30, 33). Wet silage, which is high in acid and ammonia, can also lead to toxins in the blood which cause laminitis (30).

Laminitis can also occur when cows are being moved too much or forced to walk longer distances, especially on hard surfaces (33).

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 (30).

Foul in the Foot

Another painful foot disease caused by an infection of the skin between the two digits of the hoof. It often follows an injury to this soft skin where bacterial infection then takes hold (75). Cows that are rushed, made to walk on uneven surfaces with rubble and other sharp objects and have to stand in slurry are much more likely to develop this painful condition (75). If the infection isn't treated in a timely manner, bacteria of different species can also infect the foot and make treatment so complicated that some cows are culled instead (75).

Cubicle Housing and Lameness

The inadequately sized cubicles in which many dairy cows spend at least 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 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, 7, 74). 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) (32, 74, 75).

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 (7). Due to the social hierarchy, subordinate cows may also be reluctant to lie in cubicles next to dominant cows, opting to stand or lie in the passages instead (5, 7, 74). To overcome this problem, the FAWC recommends that indoor housing units contain five per cent more cubicles than the number of cows (5, 74).

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 (33, 74). 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' (33). 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 (33, 65).

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 nearly one million cases of clinical mastitis occurring in the UK every year (4, 5, 7, 32). Between 38 and 50 cows out of 100 suffer from clinical mastitis every year (4). 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, 28, 76).

Mastitis is the most common disease in dairy cows and is a major reason for premature culling. In 2015, 14 per cent of cows were culled because of mastitis (4).

Mastitis pathogens (microscopic organisms causing the infection), of which there are over 200, belong to one of two categories: contagious or environmental (65, 77). *Streptococcus uberis* and *Escherichia coli* (E.coli) are the most common causes of mastitis, followed by *Staphylococcus aureus* and all are environmental pathogens, thriving in dirty, wet bedding and poorly ventilated buildings (32, 65, 77). Both contagious and environmental pathogens can be transmitted from cow to cow via the milking machine (76). Other ways of transmission include contact of the udders with contaminated hands of farm workers, bedding and other materials or equipment used at farms (76).

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 (65). Larger herds also produce more manure which accumulates in housing units, creating an environment in which bacteria thrive (65). 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 (65). The abnormal accumulation of milk in the udder also strains the udder tissues and predisposes high-yielding cows to mastitis (6, 28). The longer cows are left unmilked, the heavier and larger their udders get and this can trigger pathological changes in the udder – such as leakage of the blood-milk barrier – causing edema and an increased immune reaction (78). At some farms, cows are only milked once a day which may improve the quality of life of the

farmers but certainly increases the strain on the cows and makes them more prone to diseases (78).

Poorly designed and maintained milking machines are also recognised as major contributors to udder infection (30, 65, 76). 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 (65). Faulty machines can also actively transport bacteria into the udder (30, 65).

Mastitis is usually treated with antibiotics applied directly into the teats but the problem with this is that antibiotic resistant bacteria evolve very quickly. Cows treated for clinical mastitis can recover fully but often the udder tissue is damaged by the bacterial toxins and cows suffer for the rest of the lactation or even longer (76). Severe cases can be fatal or the farmer may decide to cull the affected cows (76).

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 (79). 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 (79). 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 (65, 79).

The level of somatic cells at around 100,000 per millilitre or less is normal, however if this number doubles, it indicates that the cow is highly likely to



be suffering from mastitis resulting in the excess shedding of the udder cells and white blood cells (79). Levels of 300,000 somatic cells per millilitre and higher mean that the cow is suffering from a serious infection (79).

Under UK and EU regulations, milk with a somatic cell count as high as 400 million per litre may still be sold for human consumption (65, 79). Some farmers feed milk which exceeds this threshold to the calves (65).

Antibiotics

Antibiotics are routinely used to treat mastitis and are usually injected up the teat canal or can also be given orally (80). 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 (81). Due to public health concerns, there are individual 'maximum residue limits' on medications in milk (81).

To help reduce the amount of mastitis in dairy herds, most farmers practice 100 per cent dry cow therapy (80). 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. Cows that suffer from repeated cases of mastitis or have persistently high somatic cell counts are routinely killed (4).

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 (4). A killing rate of 24 per cent is normal for most dairy herds and poor fertility is the single biggest reason for cow culling, accounting for 29 per cent of the total cull rates (4).

Although infertility in itself is not a welfare problem, it is an indicator of poor welfare resulting from physical exhaustion, nutrient deficiencies, diseases and health issues and stress (7, 32, 82, 83).

To help combat the problem of infertility, the use of fertility drugs is now widespread on dairy farms in Britain (24, 85). 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 (24).

The main reasons for fertility problems are (24, 82):

- Nutritional and energy deficiencies caused by high milk yield



Photo©Agriculture Images/Alamy

- Social and physical stress caused by unnatural herd organisation and environment
- Calving difficulties
- Infectious diseases

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 dairy farm is the steelwork. Water, used in large volumes in the milking parlour and elsewhere (for washing surfaces but also drinking water for the cows), is another conductor and 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 (34).

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 (86). 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 random testing of UK farms, none of the 23 tested was completely clear of stray voltage (86). 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 through, cows won't drink naturally, avoiding immersing their muzzle, but lap at the water instead and they drink and eat less than usual (34, 87).

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 (88). 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 (32, 89). This means that the cow is not milked on the morning of the sale or show so that her udder looks even bigger, which is seen as more attractive.

Despite this being against welfare advice and farmers being warned against it, cows continue to be sent to markets with overstocked udders as documented by experts (90) and witnessed by the many Viva! investigations.

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 (90). 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 (90).

INTENSIFICATION AND ZERO-GRAZING

The Situation in the UK

Dairy farming in the UK has changed dramatically in the last 50 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 fact that 'mega dairies' are becoming common in the UK. At the moment, about 16 per cent of dairy farms are zero or severely restricted grazing (73), whilst others allow the cows to graze but only a few months in a year. In other words, dairy cows spend most of their lives in sheds or small yards covered in manure.

Mega dairies 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 (91).

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 and cattle feed 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." (92)



Typical milking parlour where human labour is minimised to reduce costs

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 – this practice is discouraged but legal. 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 (34).

Viva!’s investigations at many dairy farms supplying major brands, including Cadbury, revealed the sad reality of zero grazing systems. See what we found at: scarydairy.org.uk/campaigns

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.” (93)

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.” (93)

After beef, dairy is the most emissions-intensive livestock product accounting for 20 per cent of the total greenhouse gases emitted by livestock (94).

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.

Bovine TB is rarely fatal in cattle, with signs of infection usually only appearing in advanced cases but it leads to reduced milk yields, making it a particular concern for dairy farmers looking to maximise their profits.

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 (95).

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 (96) 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 (97). 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 a wealth of data showing the inefficiency of badger culling in controlling bovine TB, annual badger culls are still taking place in England. In 2018, a record 32,000 badgers were killed, costing the taxpayers £100 million in compensation (98). At the same time, an independent review confirmed that it is indeed frequent cattle trading, poor biosecurity and unreliable tests that are the main cause of the disease spreading and strongly recommended badger vaccination instead of culling (98).

You can read more about bovine TB and badgers at 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).

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 (99, 100). 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 (99, 100). It is estimated that 70-90,000 kids are killed on farms every year (101).

Around 100,000 goats are farmed in the UK and most of them are dairy goats, although exact figures are not available (102, 103). In 2017, over 16 million litres of goat's milk were sold to UK consumers (104).

Goats are animals uniquely suited to thriving on tough, mountainous terrains but are increasingly kept indoors, for their entire lives, in massive zero or very limited grazing units. It's done for the ease of herd management and makes life easier for the farmers but it's certainly not good for the goats who are active and inquisitive animals and a confined life makes them suffer.



Dairy goats at a large scale goat farm

Farming of dairy sheep is less practiced in the UK but not uncommon. There are thousands of dairy sheep but precise numbers are not known. For practical reasons of milking the ewes, their movement is restricted and they may spend a better part of the year in sheds.

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 (105). 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. Camel dairy farms have been cropping up across Europe and significant amounts of camel milk are also imported from further afield. At these farms, camels are made to live in very unnatural conditions and, in many cases, in climates that are completely alien to them.

Concern has also been raised about the welfare of water buffalo used to produce milk for Mozzarella in Italy, with reports and investigations showing that very young males are so unvalued that many are dumped by the roadside to fend for themselves and their mothers and siblings are made to live in appalling conditions.

To read about Viva!'s investigation of goat farming, Nanny State, see scarydairy.org.uk/animals/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.

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, are prohibited but artificial insemination is allowed without any regulations governing the breed (and therefore size) of the sire (106). Fertility hormones must not be used to synchronise calving but may be used to bring a cow with failing fertility into heat (106). 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 (106). They must 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.

Organic cattle are housed in large sheds in winter, just like on conventional farms, and the length of their confinement indoors is not time-limited so whilst organic cows should be able to graze for more than half of each year, there's no guarantee (106). Cows 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 and although the scheme discourages the shooting of newborns, they encourage farmers to raise or sell them for veal which means they are killed at around six to eight months of age (106).

RSPCA Assured

The RSPCA Assured standards for the welfare of dairy cattle provide little more than the legal minimum for cows and their calves. As in conventional and 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 (107). 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 (107). 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 (107). However the fate of male calves is ignored under this scheme, leaving farmers free to kill off any unwanted calves immediately after birth.





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

Photo©Damian Bird

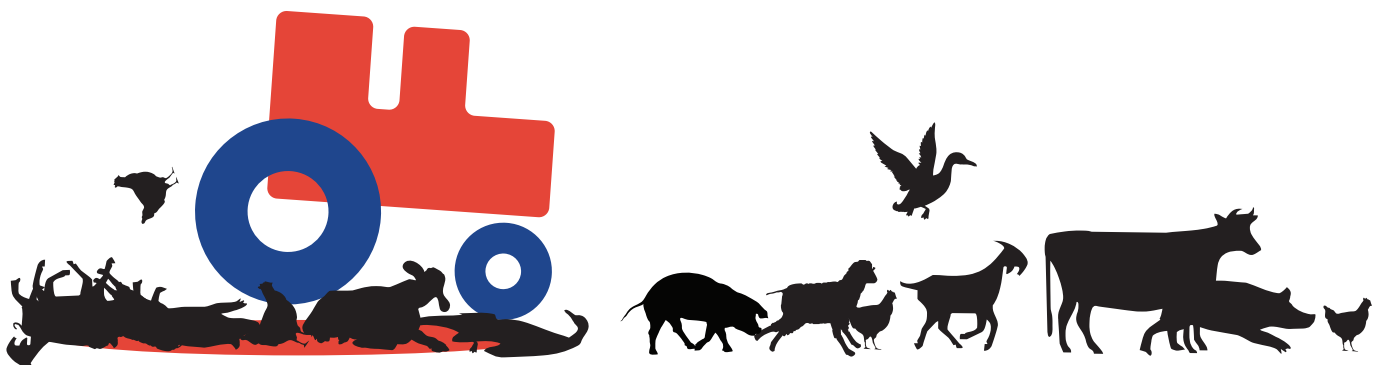
Red Tractor Farm Assurance

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 (108). 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. Although the sales of dairy-free products and plant milks are skyrocketing, they are still far outweighed by dairy sales. Every year, the dairy industry launch new advertising campaigns to boost the image of milk and they still target schoolchildren, educators and health professionals with their materials and 'educational' schemes. The future of dairy cows is literally in our hands – if we choose to consume dairy products, millions of cattle 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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