RSPCA standards justification

# Beef cattle

# Contents

# Introduction

This document provides the rationale underpinning the setting of certain, key standards within the RSPCA Welfare Standards for Beef Cattle. As such, this document provides the justification behind the setting of such standards.

Not all standards are covered within this document, as either further explanation is not required, e.g. the justification is clear within the standard itself, or the standard is based on a legal requirement. However, those standards that go above legal minimum requirements and could be set at a range of levels are generally included.

Justifications are not exhaustive, but are typically representative of the evidence base (where this exists) for that issue.

In some cases, a summary of the full standard wording has been provided. Therefore, please refer to the RSPCA Welfare Standards for Beef Cattle for the full standard wording.

References to legal requirements relate to domestic legislation.

# Food and Water

## Food

- **Feeder space:** Feeding space allowance must be as follows:

| | Minimum length mm/head | |
|---|---|---|
| **Weight (kg)** | **Rationed feeding** | **Ad. lib feeding** |
| 100 | 350 | 100 |
| 200 | 400 | 150 |
| 300 | 500 | 200 |
| 400 | 600 | 250 |
| 500 | 700 | 300 |
| 600 | 750 | 350 |

This was included in the first publication of the standards in 1996 and includes the lower allowance for ad libitum feeding. It has been used as a reference for the development of British Standard BS5502: 2005 which is in turn used by other assurance schemes as a guideline. Ad lib. feeding space is set lower in beef cattle whereas it is not permitted in dairy cattle. This is due to the fact that dairy cattle have peaks of feeding when fresh feed is delivered and after milking, which is not seen to the same extent in beef cattle so concerns about competition at the feed face and beef cattle consuming sufficient feed is not present.

- **Feed availability: Fresh food must be within reach of cattle at all times.**

This was introduced in the 2020 version of the standards, as many cattle, whilst housed, are fed via a feed barrier system and can push food away as they carry out their foraging behaviour (observational evidence). This standard ensures food is “pushed up” regularly throughout the day so that cattle can access it at all times.

## Water

- **Drinking space: At least two drinking sites per group of animals; in addition to that when using individual drinkers/bowls, 1 drinker/bowl is required every 10 animals.**

A requirement specifying the number of cattle per drinker/bowl has been in the standards since they were first issued in 1996. The current requirement was introduced in the latest edition. Cattle, especially lactating cows, require large volumes of water. Water availability has been identified as a source of competition in some cattle. Provision at two different places allows cattle a choice of where to access water.

- **Delivery rate: When housed, the flow rate of water must allow 10% of the herd to drink at any one time.**

This requirement was present in the first edition of the standards (1996) and is included in Defra’s Code of Recommendations for cattle (2003). If the flow rate of water is too slow then the cattle’s water intake may be limited, and competition for water will increase.

# Environment

## Laying area / space allowance

- **Straw yard accommodation: Floor space allowances are as follows:**

| Weight of animal (kg) | Minimum bedded lying area ($m^2$) | Minimum non-bedded/loafing area ($m^2$) | Minimum total area per animal ($m^2$) |
|---|---|---|---|
| < 100 | 1.5 | 1.8 | 3.3 |
| 101 to 199 | 2.5 | 2.5 | 5.0 |
| 200 to 299 | 3.5 | 2.5 | 6.0 |
| 300 to 399 | 4.5 | 2.5 | 7.0 |
| 400 to 499 | 5.5 | 2.5 | 8.0 |
| 500 to 599 | 6.0 | 2.5 | 8.5 |
| 600 to 699 | 6.5 | 2.5 | 9.0 |
| 700 to 799 | 7.0 | 3.0 | 10.0 |
| > 800 | 8.0 | 3.0 | 11.0 |

A standard regarding space allowance has been present in the standards since the first edition, in 1996. The space allowance standard took its current form in 2000. The weight groupings and allowances for cattle over 400kg comply with British Standard BS5502:2005 for dairy cattle. The British Standard space allowances for beef cattle were significantly lower, and as a higher welfare scheme, whilst recognising the behavioural differences between beef and dairy animals (e.g. increased herd synchronicity around milking events in dairy cows), it is felt that by weight, there is no welfare-positive or neutral reason for beef cattle to have less space. For animals less than 400kg our space allowances exceed those of many other assurance schemes and ensure that no animals are kept on fully slatted systems.

- **Lying area: Fully slatted systems are not permitted; slats must be designed and maintained so as to not cause injury. Bedding must be well maintained and dry.**

These requirements were in the first edition of the standards in 1996. Dry bedding of a suitable depth is essential in any livestock accommodation, to ensure a comfortable lying area is available. Slats can be used effectively to help with slurry management but must be maintained to prevent them becoming a source of leg or foot injuries. Fully slatted systems are not permitted by law for calves, but we do not believe they are suitable for cloven-hoofed animals, and such animals must have an unslatted area in addition to slats. Fully slatted systems also require a considerably higher stocking density to keep the animals clean, which we do not think gives animals sufficient freedom of movement and opportunities for positive interactions.

## Pasture

- **Access to pasture: All cattle must have access to pasture during the grass growing season, with the exception of calves reared for veal and those being reared by artificial means.**

Many beef cattle have access to pasture all year round, and access to pasture during the grass growing season has now been made a requirement. The exceptions are in place because during the rearing phase (first 8 weeks) producers may wish to keep calves housed for closer monitoring and inspection, and veal calves would not be able to be finished in time if put out to pasture (since veal calves must be finished between 8-12 months of age and putting them out to pasture would result in a growth check). There are also concerns regarding entire bulls at pasture (male calves reared for veal are not castrated as they are slaughtered prior to puberty) if such pasture includes public footpaths or temporary fencing. The CIWF

“good calf” award does not require calves for veal to go out to pasture due to acknowledgement of the economic challenges. We do however plan to keep this under review and hope that retailers will increase payments for producers to enable them to put their veal calves out to pasture, so we can ensure all weaned animals can access pasture. We also allow a housed finishing period of up to 3 months, in line with Soil Association’s permission for their beef cattle. This ensures that producers can achieve the final finish on their animals required by the market, which often isn’t possible in the required time period when out at pasture.

There are few studies looking at the positive welfare outcomes of beef cattle at pasture, but one recent study was by Cooke et al, 2023 which did find a benefit to beef cattle health and behaviour parameters, indicative of positive welfare.

## Environmental enrichment

- **Housed cattle must have access to environmental enrichment.**

Environmental enrichment is important to offer cattle the opportunity for a positive experience, namely to groom. This has been shown to release endorphins and cows seek out the ability to groom, indicating that it is perceived as a pleasurable experience. The requirement for environmental enrichment in housing was first introduced in the 2020 version of the standards for adult cattle, and has been present for calves since 2013. Cow brushes are frequently used by the cattle (observational experience) and it is important to ensure this resource does not become a source of competition. Mandel et al, 2016 is a review thoroughly covering the benefits enrichment offers to cattle.

A ratio of 1 brush to 50 cattle is suggested but not required since environmental enrichment is a relatively new concept for housed beef cattle. Calves must have access to environmental enrichment from 6 weeks of age. This is currently under review and may be reduced. The enrichment items must be novel and additional to their basic environmental needs i.e. not empty feed buckets left after feeding, or straw bedding.

# Health

## Downer cattle

- **Treating animals: Animals must be treated without delay and early intervention by humane destruction must be undertaken if prognosis is poor.**

  Standards surrounding the treatment of down cows were first introduced in the 1998 edition of the standards. Recumbent cattle are often seen as a result of slipping in the yard, during bulling activity or after a traumatic calving. Once an animal is down they are often reluctant to make attempts to stand, perhaps due to pain or fear of slipping. A vet should be consulted immediately to check there is no treatable cause of the recumbency (e.g. calcium deficiency or acute toxic mastitis), it is also important to check the animal has no untreatable injuries (e.g. a broken leg) that would require euthanasia. A humane end-point must be decided upon, as some downer cows never rise again and cannot be left indefinitely. The longer a downer cow is recumbent, the lower its chances of recovery. Due to their weight, regular turning has to occur, ideally every 4 hours, to prevent damage to the muscles bearing the weight of the animal. This is a stressful procedure for the cow and is time-consuming for the stock-keeper. Sometimes recumbent cattle are left in a “hoist”, effectively supported with their feet just touching the ground, to encourage standing. This is not a permitted method and cattle being hoisted must have full body support. Alternatives include inflatable mattresses/cushions among others.

- **Moving animals: Animals must only be lifted with full body support, animals must not be dragged.**

  Standards requiring animals to be lifted without causing fear or distress were introduced in 1998. Lifting gear is often used to move the animal to a safer, more comfortable environment, e.g. a deep straw bed. After rest, food and water the animal may then feel confident enough to attempt to rise. Due to the weight of adult cattle it is essential that lifting gear is used properly and that adequate support is provided to the whole body to prevent fear and distress and to reduce the risk of injuries such as broken ribs. This became stated as a requirement in the 2020 standards.

# Transport

## Livestock markets

- **Sales: Cattle must not be presented for sale at livestock markets or collection centres.**

  Livestock markets and collection centres can be stressful for cattle, and are an unnecessary part of the "farm to fork" chain. Standards prohibiting the use of livestock markets and collection centres were in the first edition of the standards in 1996. Sales should be done directly between farms, thus reducing the number of journeys an animal requires and avoiding livestock markets all together. Livestock markets can represent a significant disease risk, both through the mixing of a large number of animals from a wide spread of geographical locations and through stress-induced immunosuppression of the animals presented for sale. This is an area under review, particularly with regards to collection centres.

- **Live export: Animals must not be exported live, either directly or indirectly.**

  Live export is an unnecessary part of the "farm to fork" chain, and export of cattle for fattening and slaughter was legally banned in the UK in 2024, with export for breeding continuing to be legal. Live export for any reason was specifically prohibited by the RSPCA standards in 2008, but since the first edition of the standards (1996) time limits to journeys were such that live export would not be possible in most circumstances. Journey times can be extremely long for animals being exported and the method of transport (often by sea) may be alien to them. This can result in fatigued and stressed animals which are at increased risk of injury and disease. Live export may result in these animals being kept and slaughtered in a manner which would be illegal in the UK – this represents serious potential for negative welfare experiences for these animals and must be avoided.

## Transport

- **Space allowance: The following space allowances must be provided during transport:**

| | Weight (kg) | Area per head ($m^2$) |
|---|---|---|
| **Small calves** | 50 | 0.3 to 0.4 |
| **Medium calves** | 110 | 0.4 to 0.7 |
| **Heavy calves** | 200 | 0.7 to 0.95 |
| **Medium cattle** | 325 | 0.95 to 1.29 |
| **Heavy cattle** | 550 | 1.30 to 1.59 |
| **Very heavy cattle** | > 700 | > 1.60 |

Space allowances are those required under Council Regulation (EC) No 1/2005 on the protection of animals during transport but were introduced to the standards in 1996 before the law set out specific space allowances. Although in general more space is better, when transporting animals, too much space can be problematic. If there is too much space this can allow greater movement of the animals when vehicles are accelerating, decelerating and cornering, and increase the risk of falls and injuries. However, too little space can be an issue by reducing ventilation, increasing stress and increasing the temperature of the animals. Currently research does not suggest that space allowances larger than those stated are beneficial.

- **Time: Transport times must not exceed 8 hours – calculated from the loading of the first animal to the unloading of the last animal.**

The 8 hour time limit has been in the standards since the first edition in 1996. It ensures animals do not go for excessively long periods without food and water, and are not subjected to the motion of a vehicle for longer than 8 hours. Currently EU law states that adult cattle can travel for 14 hours, and then another 14 hours after an hour's break on the vehicle, before a rest period of 24 hours is required off the vehicle. Unweaned calves (commercially calves up to 5 weeks old, calves on our standards are weaned at 8 weeks) can be transported for 9 hours and then, after an hour's break on the vehicle, another 9 hours before a rest period of 24 hours off the vehicle. These times result in animals arriving at their destination exhausted, dehydrated, hungry and stressed. Mortality and injury rates increase as journey time increases. Animals become weaker, more likely to fall and to be trodden on and excreted on by others. Once down they will struggle to get the space required to rise again. Cattle may not sustain injuries during the journey, but the effects of stress on the immune system can result in animals getting ill about 14 days after travel. This is sometimes referred to as "shipping fever" in the USA and can be triggered by other environmental stressors too, such as weaning.

Long term stress such as long journeys in poor conditions prior to slaughter can result in Dark Firm Dry meat or dark cutting (areas of the meat which have been damaged due to injury and bruising) – these areas have to be cut away from the carcase and significantly devalue the animal, as well as raising concerns regarding the welfare of that animal prior to slaughter.

The 8 hour time limit is sufficient to ensure RSPCA Assured animals can reach an RSPCA Assured slaughterhouse without becoming too exhausted and stressed. There is not sufficient evidence to reduce journey times at present, but this is something we are monitoring, especially for unweaned calves.

# Slaughter

## Stunning

- **Pre-slaughter stunning: All animals must be stunned prior to slaughter using a permitted method.**

The standard has been present since the first edition of the standards in 1996. Stunning prior to slaughter is essential to ensure the animal does not feel pain or suffer in the moments prior to death. Cattle have a unique anatomical feature (the vertebral artery) which means they can take up to 2 minutes to die by bleeding out from a neck cut. Bleeding out is most rapid when the animal is suspended upside-down, this cannot occur when an animal is unstunned which increases the time taken to bleed out, thus prolonging the time taken to reach unconsciousness, resulting in unnecessary suffering. The restraint used for cattle when being slaughtered without stunning is called an 'active head restraint' (rather than a passive head restraint). This type of restraint causes most aversive behaviours and stress in cattle and our standards advise against using it (Humane Slaughter Association – Head Restraint Equipment). Stunning can be achieved using passive head restraint.

## Slaughter of pregnant cattle

- **Pregnant cattle at slaughter: Animals in their last third of pregnancy must not be sent for slaughter unless for disease control purposes.**

These standards were introduced in the 2018 version of the standards. Evidence obtained from research carried out on foetal responses show that there are several mechanisms that prevent foetal consciousness prior to birth. This is important to prevent foetal suffering when the dam is slaughtered. Suffering can only occur when an animal is both sentient (i.e. neurologically mature) and conscious. Sentience is only possible once the foetus has completed about 75% gestational time (i.e. 30 weeks gestation) prior to which the neurological connections are not sufficient for sentience. Consciousness occurs at the onset of birth, once sentience is possible, i.e. consciousness is possible after 30 weeks gestation too.(Mellor 2010) Without consciousness evidence shows that the foetus cannot experience pain or breathlessness and thus cannot suffer. The RSPCA welfare standards for beef cattle do not allow slaughter of any animal in the last trimester of pregnancy, except in the case of disease control purposes. This is due to the unnecessary stress to the dam that would be incurred through loading and unloading and the transport at such a late stage of gestation, but also ensures that most foetuses seen in the slaughterhouse won't be capable of sentience (being two thirds or less through gestation). Previously an exception was also made for emergency/casualty slaughter. This was removed in the 2022 edition since it was clear that in such circumstances animals are unlikely to be fit for transport.

- **Foetus at slaughter: Foetuses in the last third of gestation must not be removed from the uterus until 15 minutes after the death of the dam.**

This standard was first introduced in 2018. When a cow/heifer is slaughtered in the last trimester and the foetus is removed from the uterus too early, a stimulus is evoked similar to that of birth. This activates the gasping reflex. If an animal successfully takes in air, consciousness and thus the capacity to suffer will ensue. It is best to leave the foetus in the uterus within the carcass for ≥15 minutes to ensure it is dead prior to removal. If this is not possible then tracheal clamping of the foetus prior to removal is an alternative, but it may not be practical to do so. (Mellor 2003) (**OIE Terrestrial Animal Health Code Article 7.5.5, published 2016)** A foetus left in utero or with a tracheal clamp will show reflexive movements such as kicking, which can give the impression that the animal is suffering whilst it dies. However, whilst a lack of consciousness is maintained, research suggests that suffering cannot occur at this time.

# Calves: food and water

## Food

- **Colostrum management: All newborn calves must receive 3 litres of adequate colostrum as soon as possible and within the first 6 hours of life.**

Colostrum (first milk produced after a cow has calved) is vital to ensure the health of a calf not just at the start of life but also into adulthood. This standard has been present in the first version of the standards (1996) and was updated in 2018 to include the volume required. This amount of colostrum doesn't have to be suckled by the calf from a cow as calves left to suckle often do not consume the volume of high quality colostrum required. Newborns have an immature immune system and do not get antibodies from the mother whilst in utero, so the first milk (which contains high levels of antibodies) is essential to equip them with antibodies for the first couple of months until they can produce their own in sufficient quantities.

Evidence suggests that calves left to get colostrum solely from suckling their dams are more likely to experience failure of passive transfer (FPT) which is when the calf does not get enough antibodies to ensure a good immune system. This is particularly seen in dairy calves suckling dairy cows since the large volume of milk they produce dilutes the antibodies and so calves cannot stomach the volume of milk necessary to take on sufficient antibodies.

Passive transfer of antibodies is affected by many things, such as:

1. colostrum quality (what concentration of antibodies is in the milk) which is affected by the volume produced by the cow, and parity - older cows produce colostrum of higher antibody concentrations,

2. timing of colostrum intake - in this instance the earlier the better, ideally giving the first colostrum feed within 2 hours, although within 6 hours is sufficient. As time goes on the calf's digestive system starts to digest, rather than absorb the antibodies, with a rapid reduction of antibody absorption after 24 hours of life.

3. volume of colostrum fed - sufficient volume ensures that a good number of antibodies are available in the calf's digestive system to be absorbed,

4. method of feeding has been suggested to affect intake, with higher antibody absorption in calves which are tube fed rather than bottle fed,

5. The calf being in the presence of the dam may improve absorption, hence leaving the calf with the dam for 24 hours may help reduce FPT.(Weaver et al. 2000)

FPT results in increased mortality and increased levels of calf disease, such as diarrhoea ("scours") and pneumonia. (Conneely et al. 2014)

The requirements in our standards are also recommended in AHDB Dairy's leaflet: "The 3Q's of Feeding Colostrum", published in 2015.

- **Age at weaning: calves must not be weaned until they are 8 weeks old and eating at least 1.5kg of dry matter per day of calf starter ration. Abrupt weaning is not permitted.**

The original standard from 1996 allowed weaning to occur at 5 weeks. This was increased to 8 weeks in 2020 with an increase of starter ration to 1.5kg/day in 2022. A smooth transition at weaning from liquid to solid food is essential to reduce stress in calves and prevent any check in growth rates. Smooth transitions are achieved through gradual weaning over several days. By increasing the age of weaning from 5 to 8 weeks it increases the likelihood of farms to adopt a gradual weaning programme, this has now been made a requirement by prohibiting abrupt weaning in 2022. Calf mortality is highest pre-weaning, this is largely

thought to be due to poor colostrum management, but is also suggested to be due to nutrient restriction through insufficient milk provision which occurs prior to weaning to encourage solid "starter ration" uptake, thus allowing early weaning. Starter ration uptake helps mature the rumen, which promotes digestion of solid feed and thus reduces the reliance on milk for nutrition. However, if this occurs too early it is thought that rumen maturation is not optimal as milk is thought to also play a role in maturing the digestive system (through ruminal flora development, growth factors and other hormones found in milk and other factors) and thus post-weaning performance is affected. Calves also have an inherent drive to suckle, early weaning may result in cross-sucking behaviour as the calves still seek to relieve the need to suckle.

Weaning methods can vary, but the majority of conventional farms wean gradually over a few days by slowly reducing the volume of milk available to calves. For calves with foster cows or with their dams two-step weaning can occur through using anti-suckling devices or by placing calves behind a sturdy fence where they can have tactile contact with their mothers but cannot suckle. It is important to wean gradually rather than abruptly stopping milk feeds as gradual milk reduction leads to gradual increased intake of starter rations, and thus reduces the stress due to hunger and the check in growth seen when weaning is abrupt. Weaning is often a time when other routine procedures are done and it is advised that potentially injurious husbandry procedures and alterations in social groupings do not occur in the week prior to, or the week after, weaning. (Weary et al. 2008)

Snatch calving is permitted under the scheme due to its necessity in certain circumstances, for example disease prevention, especially Johnes disease, but also due to weakness of the calf or mother, rejection by the mother or abnormal udder conformation meaning that the calf cannot easily find and maintain a latch.

- **Feeding unweaned calves: calves under 42 days must be fed 8 litres of milk over two feeds per day, or at least 900g/d of calf milk replacer. From 8 days of age they must have unlimited access to roughage and when over 14 days old they must have access to feed or forage with sufficient digestible fibre. Iron content in the diet must maintain blood haemoglobin at 9g/dl.**

Roughage is an important part of an unweaned calf's diet because it promotes maturation of the rumen which ensures suitable digestion of solid food once weaned. Naturally calves start to graze from about 2 weeks of age, thus provision of fibrous material is important to encourage this behaviour in conventionally reared calves from a similarly early age. Roughage quality and quantity is important to help rumen development, thus we have standards laying out what is necessary.

Under 28 days it is important that calves are fed a sufficient volume of milk, as milk is still their main source of nutrition. It is also necessary to feed at least twice a day since once-a-day feeding often results in cross-sucking, which indicates that the calf's need to suckle has not been satisfied. Once-a-day feeding calves also show signs of chronic hunger which has huge negative welfare implications (de Paula Vieira et al 2008). Calves naturally tend to suckle for 10 minute bouts up to 10 times a day in the first week of life, by one month old this is reduced to 4 bouts of 10 minutes, by 6 months this has reduced down further in both frequency and length.

The ideal milk feeding system would be an ad-lib, teat feeding system where calves can have unrestricted access to milk (Von Keyserlingk et al, 2011). Cross-sucking is an abnormal behaviour seen with bucket feeding, which reflects that the calves are not able to express their natural suckling behaviour, and are thus sucking one another. This can be painful and distressing for the calf being sucked, and indicates frustration in the calf expressing the sucking behaviour (Jensen and Budde, 2006). Cross-sucking can also indicate that calves are still hungry after milk feeding. (De Passillé et al, 2010)

The required milk volume to offer calves increased in the 2022 standards to 8 litres, from 6 litres, a day. This is in line with research suggesting calves are routinely under-fed milk, and 8 litres is a minimum for adequate nutrition to promote good health.

# Calves: environment

## Environment

- **Enrichment: Calves must have environmental enrichment from 6 weeks of age onwards.**

  This standard was first included in 2013. Calves are particularly precocious, and tend to explore their environment using their tongues. That is why we thought about using environmental enrichment such as chains hanging around the pen so that they could manipulate them when they wanted. Observationally this has turned out to be a very successful low cost form of enrichment for the animals; the calves have been found to use them very frequently. Allowing the calves to express exploratory behaviour can have health and welfare benefits in our view, because it seems to lessen or prevent abnormal behaviours such as preputial and navel sucking, as well as potentially reducing neophobia.

  A review by Mandel et al, 2016 showed the benefits of a wide range of enrichment e.g. nutritional, social and tactile (e.g. brushes). The EFSA report on the welfare of calves, 2023, also found recent scientific studies had shown enrichment was of benefit to calves.

  We are reviewing whether to reduce the age from which environmental enrichment is required.

- **Flooring: Slatted floors are not permitted.**

  This standard was first seen in the first edition of the standards in 1996. Slatted floors do not give calves the comfort required to ensure the ability to rest properly by lying down, which results in poor growth, but can also increase the susceptibility to infection due to lack of rest, and stress. Slatted floors do not give calves the confidence to show play behaviours. Slatted floors can also result in a draught at calf level which can result in thermal discomfort. This may increase susceptibility to infection, particularly pneumonia.

  As mentioned in the adult cattle section, the stocking densities required to keep cattle clean on fully slatted systems are unacceptably high in our view and restrict freedom of movement.

- **Space allowance: Specific space allowances for calves where the animals are fully housed without hard standing exist. Any other calves being reared for another purpose do not fall under this remit and have different space allowances laid out in E 4.2 (seen in the Environment section above).**

| Liveweight (kg) | Minimum bedded area ($m^2$) |
|---|---|
| <100 | 2.0 |
| 101-200 | 3.5 |
| 201-250 | 4.0 |
| 251-300 | 4.5 |
| 301-350 | 5.5 |

  Space allowances were in the 1996 first edition of the standards. These specific allowances for fully housed calves were first introduced in 2013. Providing calves with a minimum space allowance ensures they have room to lie down and rise unhindered. They have space to turn around and express normal behaviours. Since calf size varies depending on breed and age, it is important that pen space accommodates that to ensure regardless of breed or age calves are provided with pens that give them plenty of space and are not reminiscent of the (now illegal) veal crates once used commercially.

## Calf hutches

- **Individual hutches: Calves must be grouped from 3 weeks of age unless bought in at an older age, in which case (if they're under the 8 week legal limit) they may be kept individually for up to one week to closely monitor their transition, prior to grouping. Hutches must provide a dry bedded area which meets the space requirements laid out in E4.2.**

  Removing calves from individual hutches at 8 weeks, or earlier, was brought into the standards in 1998 and is important to ensure social development of calves and to provide calves with companions to develop social and play behaviours, it is also now required under Council Directive 2008/119/EC. The 2022 update required calves to be grouped from 3 weeks of age.

  Evidence shows that there are no health or productivity drawbacks from pair-housing calves from shortly after birth to weaning, and that in fact calves which are pair-housed adapt to weaning better, have a better ability to express social behaviours that help establish social dominance with less stress (and since stress can lead to an increased susceptibility to infection, reducing stress can improve the health of the calves).(Bolt et al. 2017; Costa et al. 2016; Jensen et al. 2015; De Paula Vieira et al. 2010; Chua et al. 2002). However it is accepted that close monitoring of calves in groups is hindered and so individual housing does allow for close monitoring in the crucial early weeks and does protect calves from disease risks that they would be exposed to if grouped in larger numbers. Permitting individual housing for the first few weeks also ensures calves can be grouped according to character, size etc. to reduce the risk of mismatching calves.

  Disease control measures, such as bTB movement restrictions can result in a producer having more calves than there is space for. We recommend that producers plan for such eventualities.

  The standard specifying space requirements was introduced in 2020 to prevent a "twin hutch buddy system". This involves two calves being penned together but being provided with two hutches big enough for one calf in each. The calves tend to prefer to lie together and so squeeze into one hutch, thus are limited in their sheltered, bedded lying area space allowance. Although a system like this does provide calves with social interaction there are hutches which are made big enough for multiple calves and so these should be used. There is a financial implication to farmers moving to this system and so this has to be taken into consideration.

  We have a position statement on our website addressing calf hutches.

# Calves: health and welfare

## Potentially injurious husbandry procedures

- **Castration: Castration is permitted up to two months of age as a routine procedure. Rubber rings can be used after the first 24 hours of life and up to 7 days of age. Burdizzo clamp is permitted after 24 hours and up to two months of age. Surgical castration is permitted when carried out by a veterinary surgeon, using local anaesthetic, in calves under 2 months of age. Long acting pain relief must be given (see below).**

  **An exception for beef in very extensive systems is in place stating they must be castrated as early as possible and at least before sexual maturity.**

  This standard was included in the first edition of the standards in 1996. Castration produces steers, rather than bulls, which are generally calmer and easier to handle. They can also be mixed with females and other unfamiliar steers. Castration is not necessary in bull calves being reared for veal as they are slaughtered before sexual maturity. In fact, not castrating bull calves results in a faster growing, leaner animal, which is preferable in commercial terms, however, if bulls are stressed, especially during transport to slaughter and whilst waiting to be slaughtered, then they can cause bruising to one another (described as “dark cutting” meat – also associated with stressed animals, see Transport section) which must be trimmed off and removed. Unfamiliar bulls cannot be mixed, they must be kept in the groups they were reared in, and they cannot be mixed with females once sexual maturity is reached. This results in management challenges if space is not plentiful on farm. Bulls also require slaughtering immediately upon arrival at the slaughterhouse which results in management challenges at that stage. Surgical castration is the most commonly used method in the beef industry and was added to the permitted methods in 2020 as when carried out correctly and well it does not pose welfare compromises compared with the other methods.

  Very extensive beef systems need to weigh up the benefits of early castration (smaller wound if surgical, decreased risk of complications etc) with the disadvantages (such as rounding up cattle which are relatively unused to handling and find the procedure stressful, this may affect the mothering and health of the calf if carried out too early). This exemption was added to the standards in 2020 to reflect these considerations.

- **Disbudding: Disbudding is permitted in the first 5 weeks of life using a hot iron under local anaesthesia. Long acting pain relief must be given (see below).**

  The standard addressing disbudding has been in the standards since the first edition in 1996. Disbudding instead of dehorning is necessary because dehorning is a much more stressful, longer procedure done on an adult animal which is harder to restrain properly. Disbudding is not necessary in calves being reared for veal as they are slaughtered prior to any significant horn growth. Removing horn buds at an early age under local anaesthetic is minimally stressful and ensures cattle are safer to handle when older. Cattle with horns will use those horns when threatened or in asserting social dominance which can result in injury to stock-keepers and other cattle. However, there could be the potential to breed polled cattle (ie cattle which naturally do not grow horns). Most cattle are not naturally polled, thus disbudding is required.

  A permission for this to occur at a later date in extensively kept beef cattle has not been included (such as for castration) since dehorning represents a serious welfare compromise which was not outweighed by the stress of rounding up calves to carry out disbudding within 5 weeks of birth, in our view.

- **Pain relief: A long acting pain relieving drug must be used in all animals undergoing a potentially injurious husbandry procedure laid out in the standards.**

  The standard requiring long acting pain relief was introduced to the standard in 2020 after consensus that the ready availability of pain relieving drugs and their low cost was such that it was no longer prohibitive to use them in a commercial setting. This is in line with a joint statement on the subject released by the British Veterinary Association and the British Cattle Veterinary Association in 2017. Long acting pain relief has been

shown to improve the calves' recovery from husbandry procedures such as castration. It reduces inflammation, disrupts pain signalling pathways and increases comfort so the animals are more rested and eat and drink more.

Long term pain relief is now required as evidence suggests that castrated calves show signs of pain for several days after castration which can be alleviated with appropriate administration of longer-acting pain relief drugs.(Olson et al. 2016)

Evidence shows that disbudding doesn't just cause short term pain (which is reduced using local anaesthetic), but also results in long term discomfort, (Mintline et al. 2013) hence our proposal that a long-acting pain relieving drug must also be used. These drugs are now licensed and commercially available in the UK so requiring their use is not unreasonable. Research shows that calves which have had these long acting pain relieving drugs recover much more quickly than those which don't, they are brighter in character and eat better. (Heinrich et al. 2010)

# Calves: transport

- **Space allowance: The following space allowances must be provided during transport:**

| | Weight (kg) | Area per head ($m^2$) |
|---|---|---|
| **Small calves** | 50 | 0.3 to 0.4 |
| **Medium calves** | 110 | 0.4 to 0.7 |
| **Heavy calves** | 200 | 0.7 to 0.95 |

Space allowances were introduced in the first edition of the standards in 1996 and are a legal requirement under Council Regulation (EC) No 1/2005. Space during transport must be sufficient to allow calves space to move around and lie down to rest if wanted, but not so spacious as to result in loss of balance and falls. Generally it is not the case that cattle wish to lie down, partly because transport (under RSPCA Standards) only lasts 8 hours which isn't long enough to cause fatigue to the point of wanting to lie down; however young calves generally show a preference for lying down during most of the transport time (e.g. Cockram MS and Spence JY, 2012, Marcato et al., 2020).

- **Live Export: Live export is prohibited on the scheme, either directly or indirectly.**

Live export is an unnecessary part of the "farm to fork" chain, and export of cattle for fattening and slaughter was legally banned in the UK in 2024, with export for breeding continuing to be legal. Live export for any reason was specifically prohibited by the RSPCA standards in 2008, but since the first edition of the standards (1996) time limits to journeys were such that live export would not be possible in most circumstances. Journey times can be extremely long for animals being exported and the method of transport (often by sea) may be alien to them. This can result in fatigued and stressed animals which are at increased risk of injury and disease. Live export may result in these animals being kept and slaughtered in a manner which would be illegal in the UK – this represents serious potential for negative welfare experiences for these animals and must be avoided.

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