

Beef Cattle

Explanation of measures

Mobility

Little is known about the prevalence of lameness in beef cattle in the UK, although it is expected to be lower than for dairy cattle. Nonetheless lame animals are likely to be in discomfort or pain and are predisposed to further disease challenges (e.g. mastitis, swollen hocks), reduced fertility, lowered milk production and reduced weight gain. Early recognition, investigation and treatment of any lame animal is essential to limit pain, aid recovery and minimise any additional complications. AHDB Beef & Lamb recommend ensuring that both bulls and cows are sound to maximise their performance.

Lameness is most often caused by foot lesions and can be both infectious (e.g. digital dermatitis) and non-infectious (e.g. traumatic), and it is important for farmers to identify the types of lesions present in order that common causes can be addressed.

Cleanliness

In general cattle, given the choice, will choose to lie in clean, dry areas. Dirtiness on the coat can irritate the skin, provide optimal conditions for ectoparasites, increase cold stress, indicate dirty lying areas, increase the risk of disease and cause issues at, or prior to, slaughter.

Body Condition (adult cattle only)

Body condition scoring is a technique for assessing the body fat reserves of livestock at regular intervals. The purpose of condition scoring is to achieve a balance between economic feeding, good production and welfare. Body condition will vary during a healthy cow's lactation. She will most likely be at her thinnest around peak milk yield and at her fattest around drying off. However, despite this variation, her condition should not fall to score 2 or below or rise to 4 or above.

A cow with a body condition score of 1 or 2 is excessively thin and is not meeting the nutritional demands of her body. This may be as a result of feed quality/quantity, access to feed or disease. Thin animals may suffer from chronic hunger, discomfort, are predisposed to health issues (metabolic, infectious and physical), and are more likely to have reduced fertility and poor growing calves. Cows with a body condition score of 4 or more are overweight. Fat cows are at risk of dystocia (difficult calvings), more likely to develop metabolic diseases, and are prone to lameness and infertility.

Hair loss, Lesions and Swellings

Hair loss, lesions and swellings all demonstrate some form of damage to the skin and in some cases the underlying tissues. Occasional small areas of skin damage/swelling may be inevitable amongst a herd of cattle but areas larger than 2 cm may give reason for concern.

Hairless patches indicate repeated rubbing or irritation, ectoparasite presence or previous injuries (scars). Lesions indicate skin damage and can be as a result of poor management, poor building design/maintenance, damaged gates/fences or cattle interactions. Swellings can be as a result of similar poor building design/maintenance, feed trough/barrier design, abscesses, cysts or injection sites. The location of hair loss, lesions and swellings is important in determining the likely causes of them.

Animals with respiratory signs

Respiratory disease is common in housed, young beef animals in particular. Respiratory disease ranges in severity from unpleasant to life-threatening. Early identification of a problem is important in managing it, especially as when 30% of a group of animals show signs a further 40% exhibit lung damage at slaughter. Respiratory disease can result in poor weight gain and reduced fertility leading to economic losses in addition to treatment costs. Poor housing ventilation and drainage increase the risk of respiratory disease.

Cattle needing further care

Any animal that is sick or injured must be provided with the necessary treatment and care regardless of whether it is a cull animal or not. This is a legislative requirement under the Welfare of Farmed Animals Regulations 2007. Cattle that are sick/injured and not receiving adequate attention are suffering pain, discomfort and/or distress. This not only compromises their welfare but also reduces their likelihood/speed of recovery, increases the risk of disease spreading and reduces the productivity. 'Treatments' may not always constitute medication but will depend upon the cause of the illness/injury. Management changes such as separation from the herd, provision of soft bedding, easy access to feed and water etc. may be included.

Pneumonia treatments

Pneumonia is a common problem of young housed beef animals in particular. It is often caused by viruses that damage the lungs allowing colonisation by bacteria. Successful treatment of *Mycoplasma* species is threatened by antimicrobial resistance (AMR). Monitoring pneumonia treatments provides proxy information about the welfare of the cattle as well as AMR risk (providing the causative agent had been determined prior to treatment).

Disbudding, dehorning and castration

Disbudding, dehorning and castration are mutilations permitted under the Mutilations (Permitted Procedures) (England) Regulations 2007. They are painful procedures that are strictly regulated by a number of different pieces of legislation. Local anaesthesia is required when undertaking both disbudding and dehorning by any method – with the exception of disbudding via chemical cauterisation (which can only be undertaken within the first week of life). Dehorning should not be undertaken routinely and, ideally, should be carried out by a veterinary surgeon. Local anaesthesia is required for castration over 2 months of age and, at this point, it can only be undertaken by a veterinary surgeon. It is good practice to also provide longer-acting analgesia when undertaking these procedures, although this is not required by law.

Mortality

Mortality rates vary between different age groups of cattle within one farm and also between farms. High levels of mortality are not only often associated with suffering but also represent a significant economic loss to the farmer. AHDB Beef & Lamb report that more profitable beef farms have lower levels of mortality.

Higher levels of calf and pre-weaning mortality can be due to a range of factors from difficult calving and poor colostrum intake to sub-optimal housing conditions allowing disease challenge. The most common cause of death in older fattening cattle is respiratory disease but they may also succumb to other diseases or suffer accidental death. Adult suckler cows most commonly die as a result of clostridial disease, followed by Johne's disease.