



Adopted unanimously at FVE GA 7 June 2019

**FVE position on
Welfare of Dairy Cows: Lameness**

FVE position

- **Lameness is one of the most pressing welfare problems** for dairy cows, as well as a significant economic problem. Lameness is multifactorial, with risks including farming system, management processes and genetic selection.
- The **veterinary profession**, within its dual animal welfare responsibility - to advocate for the best interests of animals under the care of individual veterinarians, as well as to advocate for solutions to address the root causes of animal welfare problems – **must proactively address cattle lameness** at the levels of individual veterinary professionals, veterinary practices, and national and international veterinary associations.
- **FVE has identified positive actions that must be taken at each of these levels** to reduce cattle lameness, including: pain recognition and management; active herd health planning using participatory methods; training and licensing of foot trimmers; lobbying national governments to enforce legislation covering dairy cow welfare; advocating for a transition in housing systems to reduce lameness risk and incidence; encouraging assurance schemes and retailers to include lameness-reduction targets in their requirements; lobbying and assisting breeding companies to further increase selection for health and fitness traits; initiating monitoring claw-trimmers' data, co-ordinated lameness prevention and monitoring programmes; calling for further research and funding.
- **FVE calls for:**
 - **Repeated assessment of dairy cow welfare** at European level, including lameness
 - **All countries to set up a statutory maximum lameness rate, above which veterinary intervention is needed with a tailor-made plan to correct and improve the situation**
 - National governments to adopt and **implement the OIE chapter** on dairy cow welfare and Council of Europe recommendations concerning cattle into national law

- **EU legislation on Dairy Cow Welfare** to achieve minimum standards for dairy cows across the European Union, similar to the species-specific EU legislation protecting poultry and pigs.

Introduction

There are 23.5 million dairy cows in the European Union (EU), producing 168 million tonnes of milk a year. Milk is the EU's most valuable agricultural sector, providing approximately 15 per cent of agricultural output. The number of dairy cows has decreased steadily during the last 30 years, while the yearly milk production per cow has steadily increased (European Commission 2017).

Several studies and reports (EFSA 2009a,b,c,d,e; FAWC 2009) have identified risks to dairy cow welfare and there is consensus on the most frequent welfare problems (European Commission 2017). These include:

- Lameness
- Mastitis
- Reproductive problems
- Metabolic disease
- Infectious disease
- Longevity

FVE recognises that animal welfare relates to both an animal's physical health and mental wellbeing. When an animal's physical health is poor, their welfare will also be poor, but when an animal's physical health is good, their welfare may still be poor. That notwithstanding, the most frequent welfare problems affecting dairy cows are these listed, which are related to their physical health.

FVE also recognises that longevity *per se* is not necessarily a reliable indicator of welfare, but that cow longevity is often associated with culling, which is typically in response to a previous welfare problem such as endemic or metabolic disease, or injury.

This position is concerned with lameness in dairy cows on European farms. FVE notes that farming practices and welfare risks for dairy cows may be different in other regions of the world.

The problem

- **Animal welfare**

Lameness is widely regarded as one of the most pressing welfare problems for dairy cows (European Commission 2017, EFSA 2009e, Griffiths et al 2018) on

Standing Committee of the European Convention for the Protection of Animals Kept for Farming Purposes in 1988 and the 2018 OIE Chapter on welfare of cattle.

Article 3 of Council Directive 98/58 requires Member States to “make provision to ensure that the owners or keepers take all reasonable steps to ensure the welfare of animals under their care and to ensure that those animals are not caused any unnecessary pain, suffering or injury”.

In May 2015 the World Organisation for Animal Health (OIE) adopted standards on the welfare of dairy cows (OIE 2018). These are not binding but as with the Council of Europe Recommendation, farmers who have not adhered to the OIE standards may not be able to demonstrate that they have taken “all reasonable steps” to ensure their cows’ welfare. All EU Member States are members of the OIE.

The Netherlands and Great Britain set a level of lameness as a statutory guideline, where inspectors intervene when >5% of cows in a herd are lame (Netherlands) or 5% at locomotor score 3 (Great Britain) (Eurogroup 2015).

Risks for lameness

EFSA identifies farming system, management processes and genetic selection as key risks for lameness in dairy cows (EFSA 2009d). Nutrition and feeding are also identified as important contributing risk factors (particularly inadequacies in transition feeding and imbalanced diets), but these risks according to EFSA are lower than those attributable to housing and management (EFSA 2009d).

- ***Farming system***

Risks are much greater in systems using cubicle housing or tie-stalls than in straw yards or at pasture (EFSA 2009d). The most important hazard in relation to housing is the lack of space in tie-stalls. Dairy cattle are reluctant to be tied, both initially and after a period of exercise and tied cattle have more lameness than those free to move with good flooring and resting facilities. Dairy cattle are motivated to walk independently of the need to feed or drink (EFSA 2009d).

In cubicle housing systems the most important risks are associated with inadequate flooring and obstacles in the walking area, poor cubicle size and design and inadequate bedding (EFSA 2009d). Hock and knee lesions can result when there is inadequate bedding material and when cubicles are too small for modern cattle breeds. Insufficient space and overstocking present additional risks – an inadequate number of cubicles per cow, for example, can increase standing times for less dominant cows and increase lameness incidence.

- ***Management processes***

The most important management risks are those related to inadequate care and monitoring of foot health and hygiene, which are similar across all housing systems

considered. Weekly attention to foot hygiene leads to a reduction in infectious conditions of the foot (EFSA 2009d) and immediate treatment of lame cows by competent professionals has been demonstrated to improve recovery rates significantly. Hospital pens are beneficial for affected animals.

There should be standardised systems for monitoring the prevalence and severity of lameness by scoring locomotion and foot lesions at least monthly (Groenevelt et al 2014; Thomas et al 2015) in all dairy herds. Technology can be utilised when available and appropriate; for example, the use of accelerometers. Foot inspection with regular preventive trimming as necessary should be carried out at intervals not greater than 6 months (EFSA 2009d) by a skilled foot trimmer or veterinarian, as part of an active and regularly reviewed veterinary herd health plan. Therefore, it is necessary to organise appropriate training programmes for both, with standardisation of procedures and methods to enhance interrater agreement and consistency (Dahl-Pedersen et al 2018). Quality, which can also help engender pride in work being undertaken, must be assured by a process of licensing foot trimmers by an official body.

- **Genetic selection**

Genetic selection for high milk yield with insufficient emphasis on other traits relating to fitness increases the risk of lameness and associated pain and poor welfare (EFSA 2009d, Relun 2013). EFSA describes long term genetic selection for high milk yield as the major factor causing poor welfare, in particular health problems, in dairy cows (EFSA 2009e). In response to this, there is evidence of increasing inclusion of non-production traits in breeding programmes in some countries e.g. Norway (FAWC 2009).

Veterinary roles and responsibilities in animal welfare

The veterinary profession has responsibility to advocate for animals' best interests at the **individual** level (e.g. veterinary professionals having direct contact with animal keepers and owners), **community** level (e.g. veterinary practices offering animal welfare expertise through local media, to local politicians, and other outreach activities), **national** level (e.g. veterinary associations formulating and advocating animal welfare policies) and **international** level (through policy formulation and advocacy, and effective partnerships between national and international veterinary associations, and other international bodies and institutions).

Overall, the veterinary profession has a dual responsibility - to advocate for the best interests of animals under the care of individual veterinarians (at individual level), as well as to advocate for changes and solutions to address the root causes of animal welfare problems (especially at community, national and international levels).

Fulfilling these responsibilities meets society's expectation of the veterinary profession as an animal welfare-focused profession. Consumers of animal-derived foods are increasingly interested and concerned in whether farmed animals have a good life and a humane death, and investors are looking to manage animal welfare risks in food supply chains (Amos and Sullivan 2018). Producers take pride in being able to provide for their animals' good physical health and quality of life. A proactive role by the veterinary profession, in both practice and policy, helps ensure that all of these benefits are realised, in keeping with the One Health paradigm.

FVE recognises that cattle lameness is multifactorial in origin and gives an example of how an animal welfare problem should be addressed by individual veterinary professionals, veterinary practices and veterinary associations. FVE calls for lameness in dairy cows to be addressed at each of these levels, e.g.:

▪ ***Individual (veterinary practitioners):***

- To identify, diagnose and treat lame cows according to evidence-based treatment regimens (Relun 2013), and communicate the cow welfare impacts to farmers
- To competently recognise pain in lame cows, and to **use analgesia without delay and for as long as necessary as part of the treatment of painful lameness-causing lesions**
- To implement lameness prevention programmes in partnership with foot trimmers, farmers and all involved with the cows' care and management
- To implement **on-farm mobility scoring as part of active herd-health planning**; collate results for on-farm trend-monitoring and between-farm benchmarking; and provide training and support in mobility scoring to stockpersons, foot trimmers, herd advisors and all who routinely handle cattle

The Welfare Quality Lameness Control Programme for Dairy Cattle (Leach and Whay 2009) can assist veterinarians and farmers to undertake these Individual-level actions.

▪ ***Community (veterinary practices):***

- To have co-ordinated lameness prevention and monitoring programmes, ensuring routine, consistent on-farm lameness assessment and data-gathering
- To organise or attend regional farmer discussion groups to focus on lameness, with facilitated discussions to share good management practices and between-farm benchmarking data
- To share good management practices and provide knowledge transfer on cattle lameness to farming communities, through veterinary practice communication channels, e.g. practice newsletter, social media and press releases to local farming press

- To support and collaborate with relevant allied professionals, e.g. foot trimmers, on regional lameness prevention programmes, including two-way data sharing and the electronic documentation of claw health data during each claw-trimming visit (Heringstad 2018), where available
 - ***National (veterinary associations):***
 - To initiate and participate in industry-wide cattle lameness strategies, alongside other key stakeholders
 - To lobby national governments to detail how they will interpret and enforce the European Directive and Recommendation; for example, by setting a maximum prevalence of lameness in a herd, with linked enforcement penalties
 - Where applicable, to lobby national governments to adopt and implement the OIE standards and Council of Europe recommendations in to national law
 - To advocate for a transition in housing systems, away from tie-stalls and recognising the benefits of well-managed straw yards and/or well-managed pasture access; where cubicles are used, to advocate for improvements to cubicle house design that meet the cows' physical health and behavioural needs
 - To encourage assurance schemes and retailers to include lameness-reduction targets in their requirements, with provision of linked farm support
 - To lobby and assist breeding companies to further increase selection for health and fitness traits, to improve cow welfare, with a corresponding decrease in selection pressure for milk yield and productivity where necessary. Breeding objectives should include resistance to lameness, mastitis and other diseases
 - To support and collaborate with relevant allied professional bodies on lameness prevention strategies, e.g. foot trimmer associations
 - To call for further research and funding for automated systems for monitoring cow locomotion and the prevalence and severity of lameness
 - To advocate for societal-level funding support for improved dairy cow health and welfare, for example –
 - by signposting citizens to assurance schemes (where available) that improve farm animal health and welfare
 - by lobbying governments to recognise farm animal health and welfare as a public good to be allocated public funding support (e.g via the Common Agricultural Policy)

- ***International***

- FVE welcomes ongoing focus by European institutions on the welfare of dairy cows, such as the 2017 DG Health and Food Safety Overview Report on the Welfare of Cattle on Dairy Farms (European Commission 2017), and calls for further action by European institutions to ensure implementation and monitoring of recommendations by Member States
- FVE calls for repeated and regular assessment of dairy cow welfare at European level, including lameness, noting that the comprehensive European Food Safety Authority 2009 scientific report and opinions are nearly 10 years old
- FVE calls for an EU Directive on Dairy Cow Welfare to achieve minimum standards for dairy cows across Europe, throughout their life (including as calves, heifers and at the end of their productive life), similar to the species-specific EU legislation protecting poultry and pigs

Participatory approaches

A barrier to addressing lameness is that some farmers may underestimate the problem, for example by underestimating the lameness prevalence in their herd (Fabian et al 2014). Simply informing farmers about lameness prevalence within their herd and providing external advice is rarely effective (FAWC 2009). Uptake and implementation of veterinary advice by farmers can be increased if a facilitated, participatory approach is taken rather than a traditional advisory style. This approach can be valuable when **veterinarians are co-creating herd health plans with farm staff, which are tailored to a specific farm and should actively encourage a process of continuous improvement**. This should be supported by quality assurance schemes and requirements from dairy companies to improve foot health and other welfare problems. Many farmers value discussion groups as fora for knowledge transfer and to benchmark their progress (European Commission 2017). Farmers and stockpersons are more likely to change their behaviour if they know others have done the same.

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