

Danish animal welfare index for dairy cattle and calves

Sine N Andreasen, Anne Marie Michelsen, Marlene K Kirchner, Björn Forkman

University of Copenhagen, Department of Large Animal Sciences, Section for Animal Welfare and Disease Control
sinen@sund.ku.dk

In 2012 Danish politicians decided that Danish animal welfare indexes for cattle and pigs should be developed to support the efforts made in regard to animal welfare on-farm. The indexes should provide a tool to compare the level of welfare on-farm over time. These indexes are now being developed in cooperation among the University of Copenhagen, Aarhus University and the Danish Veterinary and Food Administration. Below is presented work regarding the on-farm measures.

Three types of indicators can be included in the construction of an index which are to work on farm; management-, resource- and/or animal-based. In general animal-based measures are considered to be most valid in respect of presenting the actual welfare state of the animal. However protocols including mostly animal-based measures i.e. the European Welfare Quality® protocols need some time to be performed thoroughly and might therefore in their entire versions not be suitable for short routine farm-visits. In the project it was decided to use the structure of the Welfare Quality® protocols for assessing welfare i.e. looking at four principles – Good Feeding, Good Housing, Good Health and Appropriate Behaviour and 12 corresponding criteria. In December 2013 a meeting with international animal welfare experts was arranged. The objective was to discuss possible indicators to be included in the index protocols. With this and already existing animal-welfare assessment protocols as background a literature study on possible indicators and their validity was conducted. The result was two gross-lists including more than 55 possible indicators for dairy cattle and more than 37 indicators for calves (0-180 days). Taking validity, repeatability and feasibility into account the gross-lists have been reduced to two net-lists. The net-list for dairy cattle holds 26 indicators e.g. body condition score, getting up behaviour, cleanliness of cow, lameness, mortality and avoidance distance. The net-list for calves holds 16 indicators e.g. water supply, total floorage, diarrhoea and access to artificial teat. In the next stage of the project the protocols are being tested on-farm and compared to the result of the Welfare Quality® protocols.

Acknowledgements

This article is based upon work from COST Action FA1308 DairyCare, supported by COST (European Cooperation in Science and Technology, www.cost.eu). COST is a funding agency for research and innovation networks. COST Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.