Scientific assessment of animal welfare and its application at farm level

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Animal welfare ranks as one of the most important issues of public concern in European countries. To date no research data are available comparing attitudes toward animal welfare across different countries. However research carried out in different countries (see Heleski et al., 2004 and 2005 for US data) all indicate a common trend, reporting that animal welfare is an issue that matters when purchase decisions are made. One of the most concrete displays of evidence confirming the relationship between concerns over animal welfare issues and consumer choice is the growing establishment of assurance (certification, labeling) schemes across the globe. Welfare certification and labeling programmes rely on measures of compliance that evolved from previously existing industry certification protocols. Evolutionary links to welfare certification programs can be claimed by health, food safety, environmental safety and workers’ safety protocols among many others. The rather close link with such certification programmes tends to create a rather complex environment for welfare auditors to carry out their duties. Most of the certification programmes enforce some types of auditing which are system-based and simple and some that is animal-based and more complex. The check-list used by the trained auditor carries items that provide information on features of the physical environment. These features could be represented by the presence of lying and sleeping areas, areas for social interactions and areas to perform behaviours for which the animals have inelastic demands. Alternatively, it could simply indicate the regularity of cleaning and disinfection type of routines at the farm. The engineering focus on building and equipment design can provide
valuable, but indirect, measures of potential challenges to the good welfare of an animal. Other measures may assure that environmental and food safety issues are considered, and this could be reflected by the acceptability or not of the use of particular chemicals or pharmacological substances and the methods for the management of waste material. Animal-based measures are the most difficult to obtain, but they are the most informative. The overall framework which explains animal-based welfare indicators incorporates protocols using measures of biological functioning, subjective experiences and the nature of the animal (Duncan and Fraser, 1997). Observation criteria may range from careful sampling to random observations Animal-based measures addressing biological functioning include the occurrence of lesions, observable disease symptoms, locomotion problems, aggression and behavioural abnormalities. Amongst animal-based measures addressing subjective experiences, the most widely used protocols provide information on the interaction between the human caretakers and their animals. The underlying assumption is that positive interactions will be associated with less pronounced fearful responses in the animals.

The impact of scientific welfare indicators addressing measures of biological functioning, subjective experiences and the nature of the animals on certification and labeling programmes has not been tested empirically. We propose that some measures of biological functioning reporting the activity of the stress-axis and measures of subjective experience reporting on fear and pain thresholds are adequately tested and ready to be used in on farm welfare assessment protocols.

Our goal is to develop reliable and validated indicators to facilitate the development of science based guidelines and policies to safeguard animal welfare. Norway has unmatched record keeping protocols. The available epidemiological database can provide valuable information to develop relevant controlled research trials capable of addressing animal welfare issues at farm level.
The Norwegian School of Veterinary Science is developing an animal welfare initiative that will create an excellent multidisciplinary environment to maximise graduate and undergraduate training and research opportunities in animal welfare science.

References

