

# Animal Behavior and Well-Being: Animal Welfare Assurance: Science and Application

**52 Resource-based versus animal-based criteria in on-farm evaluation of welfare.** A. Butterworth\*, *University of Bristol, Clinical Veterinary Science, Langford, N Somerset, UK.*

Existing farm assurance schemes tend to assess welfare by examination of the provision of housing or resources (Resource Based Measures, RBM), rather than looking at the animals themselves (Animal Based Measures, ABM). Research scientists have for some time suggested that ABMs could provide valid indicators of animal welfare, since welfare is a characteristic of the individual animal, not just of the system in which animals are farmed. The sorts of questions which are being asked are: Are the animals properly fed and supplied with water? Are the animals properly housed? Are the animals healthy? Can the animals express a range of behaviors and emotional states? To implement effective use of animal-based assessment methods on farm, it is necessary to adopt the following steps. Step 1, Measure (ABMs and RBMs) → Step 2, Analyze risk factors → Step 3, Inform (producer, purchaser) → Step 4, Support management decisions to create improvements in welfare. Once measures have been carried out on a farm, it may be possible to create a range of 'scores'. The individual measures can be combined to give aggregate scores which can be presented to the producer and the consumer. This requires the attribution of weighted values to the measures, to assess the impact of each measure with respect to animal welfare. In the Welfare Quality project, an Integrated European Research initiative carried out under Framework 6, ABM based assessment systems have been created for Pigs, Cattle and Poultry. There remain many questions regarding practical application of ABMs, - who will carry the cost, can the measures be made in a repeatable and reliable way within the timescale of a routine assessment, how would they work in relation to changing seasons, can a single farm-based score provide useful information, and can ABMs fit into existing assessment frameworks?

**Key Words:** farm assessment, animal based measures, outcome based measures

**53 Developing animal welfare standards: Translating experimental studies to the farm.** J. Rushen\*<sup>1</sup>, E. Vasseur<sup>2</sup>, and A. M. de Passillé<sup>1</sup>, <sup>1</sup>*Agriculture and Agri-Food Canada, Agassiz, BC, Canada,* <sup>2</sup>*University of British Columbia, Vancouver, BC, Canada.*

Considerable research has successfully developed measures of animal welfare and tested the effect of housing and management variables on welfare within controlled laboratory settings. However, there are challenges in extending this research onto farms. We illustrate some of

these challenges and offer some solutions by referring to recent developments in welfare standards for dairy cattle. On-farm assessment of animal welfare requires using measures that can be taken by personnel with limited scientific training, in conditions that vary greatly among farms, usually in a short period of time, and often with little technical support. There is a risk that measures are chosen on the basis of feasibility rather than validity. Although the global assessment of animal welfare requires us to examine all aspects of animal welfare, these difficulties in taking measures have resulted in an over-emphasis on health based measures. Automated measures of behavior hold promise as a way of addressing some of this imbalance. Stakeholders prefer that animal welfare standards be science-based, but ensuring that such standards acknowledge the scientific uncertainty is also challenging. Balanced input from all scientific disciplines dealing with animal welfare is needed and the process of obtaining scientific input must be transparent and unbiased. Compliance with animal welfare standards requires buy-in from all stakeholders. The process used in developing the recent Canadian standards for the welfare of dairy cattle illustrates some methods for achieving this.

**Key Words:** animal welfare, dairy cattle

**54 Integration of science, regulation and training in animal welfare auditing programs.** J. C. Swanson\*, *Michigan State University, East Lansing.*

Corporate social responsibility policies are employed by food retailers to publically convey an internal commitment to address an important consumer issue like farm animal welfare. Private sector social responsibility policies, coupled with increasing public scrutiny and calls for regulatory oversight of farm animal care practices, have led the US livestock and poultry industries to create voluntary guidelines and on-farm animal welfare assurance and audit programs. Third party audits, an audit in which the auditor has no conflict of interest with the farm he or she is auditing, are becoming a condition of doing business with the food retail sector. In addition, recent state legislative actions have created requirements for government oversight of standards of farm animal care that have been socially negotiated. Together, these social responsibility and legislative mandates create a need for highly trained farm animal welfare auditors. The objective of this paper is to examine the challenge of successfully integrating science and diverse regulatory mandates into an effective animal welfare auditing program.

**Key Words:** science, animal welfare, audits