

Implementation of the CCAC guidelines on: the care and use of farm animals in research, teaching and testing

The *CCAC guidelines on: the care and use of farm animals in research, teaching and testing* was developed by the CCAC ad hoc subcommittee on farm animals¹ and supersedes information contained in Chapter IV—Farm Animal Facilities and Environment, and Sections B and C of Chapter VI—Social and Behavioural Requirements of Experimental Animals in the *Guide to the Care and Use of Experimental Animals*, vol. 1, 2nd ed. (1993). Comments received from three external reviews of this guidelines document² and presentations made at scientific meetings³ contributed substantially to the development of a comprehensive set of guidelines with supporting context to facilitate the implementation of best practices.

These guidelines apply to farm animals used by institutions for scientific purposes. They aim to provide information for investigators, animal care committees, facility managers, veterinarians and animal care staff that will assist in improving both the care given to farm animals and the manner in which experimental procedures are carried out. The refinement of animal care and use is a continuous process. In this respect, the guidelines provide a framework for the implementation of best practices.

The use of farm animals in the agricultural industry presented unique challenges to the development of these guidelines. While national codes of practice for the care and handling of various farm animals have been developed for commercial requirements of the Canadian agricultural industry (currently available through the National Farm Animal Care Council, <http://www.nfacc.ca/code.aspx>), CCAC guidelines aim to provide a higher standard of animal welfare for animals used in science. The CCAC takes the position that research and teaching institutions should provide leadership in the exploration, development and implementation of best practices for the agricultural industry, and that for institutions involved in teaching, students should graduate fully aware of the current best practices. However, it is also recognized that for some animal projects, housing and husbandry need to be in line with commercial animal production so that the research results can be directly translated to the agricultural industry. The guidelines note that in such cases, the best industry standards should be used, with the approval of the animal care committee.

Must versus Should

These guidelines are intended to provide assistance in the implementation of best practices and the achievement of Russell and Burch's Three Rs for use of animals in science. The CCAC recognizes that guidelines with the term 'should' may be subject to interpretation by properly constituted ACCs, and that in some cases, an ACC may accept a lesser standard of practice on the basis of adequate evidence and in keeping with the principles of the Three Rs. This discretion is not extended to any other parties. Where regulatory requirements are involved or where the CCAC considers that no lower standard of practice could be accepted, the term 'must' has been used.

*CCAC Guidelines Committee,
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Another challenge in the development of these guidelines was in striving to replace measurable standards for housing with recommendations that are based on current farm animal behaviour and welfare research, in view of the demand for defined standards from those building facilities. Farm animals in general have changed over time (e.g., the average size of cattle has increased), making it difficult to set measurements that will continue to be valid. Through the various drafts and reviews, it was determined that a mixed approach was needed. While minimum space requirements for various types of animals are given, the document focuses more on requirements for the animals to be able to perform behaviours important to their welfare.

During the development of this document, the area of environmental enrichment was explored in depth, resulting in a shift in the use of the term for CCAC guidelines. In these guidelines and future CCAC publications, the term *environmental improvement* is applied to manipulations or additions to an animal's environment that address areas where the animal may otherwise experience some degree of suffering (e.g., providing artificial teats for young calves to suck), and the term *environmental enrichment* is reserved for those improvements that provide additional benefit to the animal, but whose absence will not result in suffering⁴ (e.g., providing grooming devices, or 'scratchers', for cattle).

The *CCAC guidelines on: the care and use of farm animals in research, teaching and testing* will begin to be fully implemented by the CCAC Assessment Program in September 2010, after an introductory period of one year. In the meantime, any questions concerning further clarification of the guidelines should be directed to the CCAC Guidelines Program.

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² Reviews: peer review from July 18 to September 2, 2005; widespread review from July 21 to September 22, 2006; and final review from July 31 to August 31, 2007. These reviews resulted in 43, 28 and 22 sets of comments, respectively, amounting to input from 71 different reviewers from Canadian and international institutions.

³ The draft guidelines were also presented at the Canadian Society of Animal Science (CSAS) annual meeting in Cincinnati on July 26, 2005, and in Halifax on August 3, 2006; and at the Canadian Association for Laboratory Science (CALAS) annual meeting in Calgary on June 4, 2007.

⁴ Suffering is a term used to denote a negative state of welfare experienced by the animal, which may include pain, distress, hunger, thirst, fear and/or frustration, as well as other states not normally experienced by humans.