

Future priorities for research and education in support of OIE standards

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The group began with a discussion of how research priorities could be set. Prof Mellor's distillation of the criteria was to give priority to an animal welfare problem:

- If the welfare problem is urgent
- If the species is comparatively important in terms of numbers, economic and cultural importance and other factors
- If there is a good chance of success
- And if the cost and time to achieve success is comparatively low.

Prof Mellor also proposed an approach based on incremental improvement, where different countries are at different points in the process, and where priorities will therefore vary among countries and regions.

Several broad areas were identified as needing interdisciplinary and inter-regional research:

- Effects of genetics on animal welfare, to move beyond genetic selection that promotes extreme productivity only under ideal conditions.
- Effects of nutrition on animal welfare, to look beyond diet composition to the many other factors that contribute to animals being well nourished.
- Broad-based research on health, to include the multiple factors that contribute to animal health including hygiene, housing and care, and therefore to reduce reliance on pharmaceutical inputs such as antibiotics.
- Research using the methods of the social sciences – psychology, anthropology, economics – partly because of the huge effects of human behaviour and attitudes towards animals and their welfare, and partly to capture traditional husbandry knowledge gleaned over many decades of direct contact with animals and incorporate it in modern animal production systems.

Several specific topics were raised:

- The need for research on minor species such as rabbits
- The need for research on low-cost, locally available medications such as herbal anthelmintics
- The need for research on euthanasia and stunning (although such research may be difficult to conduct because of ethical concerns about research on killing methods).

At a strategic level, it was recognized that there is use for a network of animal welfare researchers:

- Partly to bring advanced research methods to bear on local problems
- More generally to build research capacity in countries where that capacity is currently limited.

Some specific challenges were noted:

- One is the need to develop capacity to write and review research protocols so that all countries can meet international standards of ethical oversight of research.
- Another is the need to share research findings, especially negative findings which are often not published.
- A third is the need for grants to support research on local solutions to local problems – a type of research often not valued or funded by funding agencies.
- Fourth is the need for publication media for such research, as major journals may not publish research that is seen as primarily of local interest.
- Finally, some researchers face the dilemma of recognizing the need for locally relevant research, but they are judged by a reward structure that values only fundamental science.

Educational challenges were also noted:

- A need to inform producers, perhaps especially small-scale producers, of the economic benefits of good animal welfare practices and adherence to the OIE animal welfare standards
- A need to inform producers of the scientific basis of good animal welfare practice
- A need to educate the public, especially children, about animals, animal welfare and animal care
- And, in view of increasing animal welfare law, there is a need to provide information on practical measures that can be used in court cases as evidence of animal pain and distress.

How to achieve all this?

- First the twinning of OIE collaboration centers with emerging centers is certainly a good step but limited by the small number of centers involved.
- Second, and more broadly there may be a need for a more formal network or association of animal welfare scientists. UFAW, which currently publishes the journal *Animal Welfare* and hosts many scientific conferences on animal welfare, was identified as an important partner.
- Third, a program of post-graduate education, leading to a diploma in animal welfare or equivalent, is now available for veterinarians in Australia-New Zealand, Europe and the United States. There is a need for financial and institutional support so that veterinarians from other countries can either become qualified through established programs, or develop such a program in their own regions.
- Fourth, there is also a need for veterinarians qualified in animal welfare to use a train-the-trainer approach because many universities will not have the resources to hire a specialist in animal welfare.
- Fifth, for the same reason, there is a need for a model curriculum for animal welfare, perhaps using the educational materials of WSPA and/or supplementing it with other published resources available internationally.
- Sixth, there needs to be more awareness and Open Educational Resources (OER) that are increasingly available, partly for vocational training in animal handling, and partly for broader education of the public on animal welfare.
- And finally and perhaps most difficult to achieve, we need a cultural change in science to value and fund research that applies science in the development of local solutions to local problems.