

Secretary
Senate Education, Employment and Workplace Relations Committees □
Parliament House
Canberra ACT 2600

Dear Secretary

Animals Australia is pleased to have an opportunity to provide a brief submission to the inquiry being undertaken by the Senate Education, Employment and Workplace Relations Committees into:

Higher education and skills training to support future demand in agriculture and agribusiness in Australia

Our comments are limited to the following terms of reference:

- the provision and content of higher education and skills training for agriculture,
- the incorporation of animal welfare principles in agriculture education; and
- other related matters.

Our comments highlight the need for higher education and skills training in agriculture, agricultural science and agribusiness to include the following three elements:

i) A comprehensive study of the ethical dimensions inherently involved in any and all interactions between human and non-human animals, whether for private or commercial reasons, based on up-to-date research and literature in the fields of ethics, animal behaviour science (cognitive and social) and ethology.

Recent research (cited in the body of the submission) indicates that the ethical dimension is lacking in secondary school curricular and in teacher training and is therefore likely to also be absent in other higher education environments.

ii) A comprehensive and up-to-date knowledge of all legal requirements pertaining to such interactions under relevant state and federally-based legislation, the *Australian Code of Practice for the care and use of animals for scientific purposes*, 8th Edition (due out in 2012) and the AEC system and relevant species-specific Standards and Guidelines.

iii) The use of complementary educational and training techniques and technologies in skills development training prior to hands-on dealings with live animals to support the principles of best practice in animal welfare for agricultural animals

Research (cited in the body of the submission) indicates that students who learn components of their syllabus using such learning pathways achieve as well as or better than their peers who do not.

Terms of Reference - Ethical Dimensions

▪ The provision and content of higher education and skills training for agriculture

The goals outlined for a national education curriculum in the Melbourne Declaration on Educational Goals for Young Australians December 2009 include that all young Australians “develop personal values and attributes such as honesty, resilience, empathy and respect for others” and “act with moral and ethical integrity”.¹

Ethics requires that empathy and respect for others be applied to our treatment of all sentient beings i.e. all those capable of pleasure and pain who are affected by our choices about how we are to live together. Acting with moral integrity requires consistency in our treatment of others based on their capacities, needs and interests.

Higher education and skills training for agriculture must include animal ethics, if agriculture in Australia is going to be justifiable and sustainable.

Research suggests that ethics in general and animal ethics in particular i.e. how non-human animals should be treated is not being included in relevant curricula at primary, secondary and tertiary levels². This research indicates that:

- (i) Current knowledge of animals’ abilities (their sentience and social and moral behaviours), and the resultant ethical issues regarding their current treatment is largely excluded from the curriculum. Animals are still classified as “things” in the new Australian Science curriculum and needs of living creatures are not directly referred to beyond Yr 2 in the Framing Paper for the Australian Geography curriculum.
- (ii) Animal ethics in Australia is often confused with the narrow application of the *Australian Code of Practice for the Use of Animals in Science and Teaching* 7th Edition, rather than the broader ethical issues of our treatment of animals across a wide range of uses, including agriculture.
- (iii) 20 - 44% of teachers indicate they lack strategies for teaching about ethical issues, and 40-65% perceives they lack the training and resources on how to address ethical issues in the classroom.
- (iv) Male teachers are generally less interested than female teachers in teaching about ethical issues, and animal ethics issues, and less interested in professional development and accessing resources on ethical issues. This has implications for the effectiveness of animal ethics teaching in secondary and tertiary science and agricultural courses, especially if the majority of teachers are males.

The neglect of animal ethics issues in curricula has become increasingly significant with the expansion of knowledge and understanding of non-human animals’ capacities to think, feel, and develop complex social and moral relationships.

Animals Australia supports the development of education in relevant primary, secondary and higher education curricula that accurately informs students about where Australia’s food currently comes from,

¹ MCEETYA 2009. Melbourne Declaration on Educational Goals for Young Australians.

² Verrinder, J. 2008. *Animal Ethics in Schools: Recommendations for Primary and Secondary School Curricula*. Masters in Professional Ethics & Governance Thesis Griffith University 2008.

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how it is produced and the importance of ethical and sustainable food production. This is particularly needed in areas of science, social science and agriculture, as all these curriculum areas involve interaction with non-human animals and/or require decisions that impact on the lives of human and non-human animals.

Animals Australia also supports skills training in agriculture that is based on teachers and students being trained in ethical decision-making and behaviours that support the ethical treatment of animals.

A Primary Industries Education Foundation (PIEF) formed by the agricultural industries with government and the education sector as partners aims to develop education to enhance knowledge of agriculture for sustainability of agricultural industries. However, since the agricultural industry sector is a profit-driven animal use industry, considerable care needs to be taken by both the government and education sectors that they maintain the integrity of education curricula and the credibility of the Australian public.

PIEF education resources in the website Primezone³ are not addressing the sentience of animals and the ethical implications of this knowledge of their sentience on agricultural production choices. PIEF resources provide information on the lifestyles of farmers, the breeding and management of free ranging animals, and sale and consumption of meat, but leave a huge gap in the agricultural process by not including the effects on animals of confinement in intensive systems, genetic modification, continual insemination and pregnancies, invasive procedures without anaesthetic, removal from their homes and social structures, transporting, and killing of animals. Where animal welfare is minimally mentioned there is a focus on the quality of the meat product, and sustaining the environment, with a minor reference to low impact stock handling.

National curriculum documents and resources endorsed by governments and the education sector must provide up-to-date information on the sentience of animals and the implications of this knowledge on the treatment of animals in agricultural production.

- **The adequacy of current educational arrangements in meeting the Australia's agricultural labour market needs** – Labour to develop ethical and sustainable agriculture

The failure to adequately address the ethics of humans' behaviour towards other sentient beings impacts not only on the wellbeing of non-human animals, but the wellbeing of humans, the development of a compassionate and ethically consistent society, and on sustainability of the environment.

If Australian agriculture is to meet its labour market needs, there needs to be a paradigm shift to attract people who are capable of addressing the international issues surrounding the use of animals for food and their ethical treatment. Consumers are becoming increasingly aware of the implications of their choices in relation to animal consumption. To develop ethical and sustainable agriculture that is respected by both Australian consumers and international consumers, it is essential to address these issues.

- **The incorporation of animal welfare principles in agricultural education** – Requirements of the National Curriculum to include General Capability - Ethical Behaviour

Ethical Behaviour is one of the cross-curricular General Capabilities in the new National Curriculum. This means it must be incorporated into all school curricula. For consistency, higher education and skills training related to agriculture also needs to include the development of ethical behaviour in relation to the treatment of production animals and the impacts of agriculture on wild and introduced species.

³ www.primezone.edu.au

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The Conceptual Statement for Ethical Behaviour describes what is intended:

“In the Australian Curriculum students develop ethical behaviour as they learn to identify matters of moral concern, investigate the nature of moral concepts, values, virtues and principles and learn how reasoning can assist moral judgment. This enables them to build a strong personal and socially oriented ethical outlook that can manage context, conflict and uncertainty.

Improving the capacity for moral judgment assists students to navigate a world of competing values, rights, interests and norms. As students take their place as citizens in a pluralist society, it is important that they strengthen their ability to select and justify a moral position and to understand and engage with the positions of others. These skills promote students’ confidence in themselves as decision-makers and their ability to act with regard for others and for the common good.

Becoming a successful learner entails engaging deeply with big concepts and big ideas. It is important that students are able to identify and make sense of ethical dimensions in their learning in an informed way. Building these skills throughout all stages of schooling assists students to engage with the more complex issues they are likely to encounter in the future.”⁴

Animal ethics has become of increasing interest and concern, especially in the last 30 years, to philosophers, scientists and the general public. A vast body of knowledge now exists in the field of animal ethics⁵.

However, currently agricultural practices are not addressing these ethical issues sufficiently and are not aligned with emerging ethical standards for the treatment of animals. It is therefore important that education programs and teaching do not just reinforce existing practices but encourage development of respect, justice and integrity in our relationship with all living beings. Inclusion of animal ethics i.e. how animals should be treated, will provide students with the opportunity to think about and make ethical decisions about current uses of animals in the context of animals’ capacities and interests.

The Animal Ethics in Education Reference Group that includes prominent Australian academics and educators in the areas of science, social science, ethics, law, governance and animal welfare (see members list in Appendix 1) is concerned about the current lack of animal ethics in the National Science and Geography curricula. This group has made submissions to the Australian Curriculum, Assessment and Reporting Authority requesting that the sentience of animals and the implications of this knowledge on how animals are used in human society be included in these relevant curricula.

It is hoped that this expert opinion and the vast body of knowledge on animal ethics will not be ignored. Animal ethics needs to be included in all higher education and skills training for agriculture and agribusiness to create the foresight to direct agriculture in an ethical and sustainable direction.

- **Other related matters to the selected terms of reference** - Requirements under the new Code and any relevant state-based animal legislation.

Higher education and skills training to support agriculture must firstly adhere to the requirements of the new Australian code of practice for the care and use of animals for scientific purposes (Code), currently out for public consultation. In the interim, the current Code (7th edition 2004) will apply.

⁴ http://www.acara.edu.au/curriculum/general_capabilities.html

⁵ Example of the range of knowledge in this field: Armstrong, S. & Botzler, R.2008 The Animal Ethics Reader 2nd Edition, Routledge.

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Code requirements include the need for Replacement, Reduction and Refinement of use of animals in research and teaching at all levels.⁶

In its draft form the new Code also requires that students at secondary (in this instance agricultural courses and colleges) and tertiary level (in this instance vocational, veterinary, postgraduate and researcher training) discuss the ethical and social issues involved in the use of animals.⁷

Beyond the Code, educators must be aware of the requirements of State and Territory animal welfare/protection laws and regulations and associated Standards and Guidelines as they become available, and to existing Codes of Practice until replaced by Standards and Guidelines. However, such laws, Standards and Guidelines and Codes of Practice should be noted as absolute minimum standards, with agricultural education and skills training aiming to achieve industry best practice.

Essential to any teaching must be the principle and practice of animal welfare, to complement the study of ethics in relation to animal use. As for any discipline the goal in animal welfare should be continual improvement and this should apply to both the principle and the practice.

In 2007 Compassion in World Farming (www.ciwf.org) in conjunction with Griffith University, Qld and with the assistance of Animals Australia, held a symposium titled: *Humane Education – a compassionate ethic for animals* (www.humaneeducation.org.au). A number of presentations were relevant to the current Inquiry. Among the presenters Dr D Evans, Snr Veterinary Officers (Animal Welfare) Department of Agriculture and Food, Western Australia posed the question ‘Is Education the Answer to improving Animal Welfare?’⁸

- **The incorporation of animal welfare principles in agricultural education** - The use of replacement techniques and technologies in skills development training

Animals Australia acknowledges the need for veterinary and agricultural students to engage in hands-on interactions/interventions with live animals **at the appropriate time in their education and training**. Animals Australia also supports the development of curricula that strive to incorporate animal replacement techniques and technologies wherever possible to limit **inexpert skill** impacting adversely on animals and to support the principles of best practice, both in theory and practice, in animal welfare for agricultural animals.

The current NHMRC-produced *Australian Code of Practice for the care and use of animals for scientific purposes* 7th Edition, 2004 brings to bear the issue of the ethical dimensions of human-animal interactions. It states quite clearly in the General Principles for the use of animals in education, p45:

6.1.1 Animals are not to be used for teaching activities unless there are no suitable alternatives for achieving all of the educational objectives

6.1.4 The use of non-animals models to achieve educational outcomes is still evolving and therefore should be kept under constant review. The institution will therefore need to establish mechanisms to respond to enquiries or complaints concerning the use of animals within the institution and ensure that

⁶ Australian code of practice for the care and use of animals for scientific purposes. Draft. October 2011. Section 1: Principles for the care and use of animals for scientific purposes 1.20-35.

⁷ The Code 4.4.8, 4.4.13; a similar requirement is contained in the current Code, clause 6.1.3

⁸ <http://www.humaneeducation.org.au/evans.pdf>
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personnel and students may voice their concerns without jeopardising their employment, careers or coursework.

The eighth Edition of this Code currently out for public consultation until December 2nd 2011 also states p69:

Tertiary level (including vocational, veterinary, postgraduate and researcher training)

4.4.12 Teachers must ensure that the following conditions apply when tertiary-level students engage in activities with animals:

(ii) A staged program of instruction in methods for handling and caring for animals equips the students to perform the necessary tasks with care and competence.

Thus, any vocational curricula in agricultural science must be developed with these mandatory requirements in mind. In particular, adopting a **staged approach to practical skills development** can be greatly enhanced by using non-animal techniques/technologies where they are available. Curriculum developers and teachers/demonstrators will therefore require a good knowledge base in relation to:

- **accessing** information about complementary teaching methods (particularly in order to be able to justify a teaching activity in an AEC application or alternatively to indicate why existing complementary methods have not be selected)
- **selecting** appropriate alternatives for a given curriculum
- **combining** complementary teaching methods with traditional hands-on approaches to ensure the least adverse impact on the animal's welfare while allowing the student to achieve all the desired educational outcomes

The Code provides extensive guidance in an Appendix on how to access complementary replacement based teaching methods that are now based on the best that twenty-first century technology has to offer.

In some cases, complementary technologies developed for veterinary science may be of assistance in providing a model for syllabus design in animal welfare principles as they relate to agricultural animals. There are a number of companies today manufacturing simulators and functional manikins on which can be developed, in a staged approach, many required basic skills.

Some examples include:

- In 2008 a revised and expanded international syllabus to assist with the teaching of animal welfare in veterinary faculties was launched by the World Society for the Protection of Animals (WSPA). The 2003 version of the 'Concepts in Animal Welfare syllabus' was the result of a long-standing collaboration with the University of Bristol's School of Veterinary Medicine, one of the world's first academic institutions to pioneer animal welfare teaching and research.
- The USA company Rescue Critters provides fully functional made-to-order animal manikins that are used worldwide in veterinary programs and they are moving into agricultural animals (www.rescuecritters.org).
- The International Network for Humane Education provides a comprehensive database of interest: <http://new.interniche.org> (search for 'farm', 'cow', 'bovine' to find eg the CALVE software).
- Abutarbush, S. M., Naylor, J. M., Parchoma, G., *et al.* (2006). Evaluation of traditional instruction versus a self-learning computer module in teaching veterinary students how to pass a nasogastric tube in the horse. *J. Vet. Med. Educ.* 33(3), 447-454. These researchers found that haptic simulators provide anatomically appropriate tactile feedback to students' instruments and fingers

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depending on their locations within simulations such as a virtual bovine colon (Fig. 26). They may also be used in endoscopic surgical simulation (Fig. 27). They also found that a CD-ROM was more effective than a live animal demonstration by an instructor of the correct method for inserting a nasogastric tube into a horse. Students using the CD-ROM performed significantly better on a test of knowledge, were more confident, and were significantly quicker at successfully inserting a nasogastric tube into a live horse, than their traditionally instructed peers.

- The Royal Veterinary College, London in collaboration with SenseGraphics have developed The Core Skills Trainer that teaches core skills for clinical work. With the Trainer, students learn these skills through a series of haptic computer games.
<http://www.rvc.ac.uk/Enterprise/documents/RVCCoreSkillsTrainer.pdf>
- Enasco is an American supplier of a comprehensive range of learning tools for agricultural science
<http://www.enasco.com>
- Veterinary Simulator Industries Ltd. www.vetsimulators.com is a company that manufactures agricultural animal simulators.
All their products are hand-crafted and custom built. They have simulators of: a dystocia calf; beef (Hereford) cow; Holstein cow and calf models; an equine simulator, with belly-tap component, inflatable GI tract, spleen and kidney, partial small intestine (for inflation) soft perineum panel. The GI tract can be used as a stand-alone item, with 4 sections that can be separately inflated to instruct impactions, or with impactions provided. The equine unit is still in a prototypical stage but this prototype functions as a working unit, as the University of Calgary can attest to.

These examples attest to the fact that it is possible for curriculum developers to access complementary/replacement techniques and technologies whose use not only facilitates confident, competent skills development but also promotes respect for animals and a high level of awareness of the impact that many interactions can have on the welfare of industrialised animals.

Conclusion

This submission recommends:

- (i) Inclusion of animal ethics in all higher education and skills training for agriculture
- (ii) Adherence to the requirements of the new Australian code of practice for the care and use of animals for scientific purposes
- (iii) The use of replacement techniques and technologies in skills development training

Prepared for and on behalf of Animals Australia by
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Appendix 1

Animal Ethics in Education Reference Group

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NAME	RELEVANT QUALIFICATIONS	POSITION
Professor Clive Phillips	BSc Agriculture, 1980, Univ. Reading; PhD Dairy science, 1983, Univ. Glasgow; MA Univ. Cambridge, 1998	Foundation Chair of Animal Welfare, Centre for Animal Welfare and Ethics, School of Veterinary Science, University of Queensland
Dr Noel Preston	AM (Order of Australia), B.A., B.D (U. Q.), M.Ed (Hons.)(1988) (UNE), Th.D. (1972) (Boston Univ., USA)	Adjunct Professor Griffith University Key Centre for Ethics Law Justice & Governance
Dr Gail Tulloch	B.A.(Hons.) Melbourne Univ., Dip. Ed. Monash Univ., M.A. Melb Univ., PhD La Trobe Univ.	Adjunct Research Fellow, Centre for Animal Welfare and Ethics, University of Queensland, and School of Humanities,Griffith University.
Dr Tania Signal	B.Soc.Sci; M.Soc.Sci (1 st class Hons); PhD (Univ. of Waikato, NZ)	Senior Lecturer Psychology, Faculty of Science Engineering and Health, Central Qld University
Steven White	BSc(Hons) (Melb Univ.), LLB(Hons), M Pub Sector Mgmt (Griffith Univ.).	Lecturer, Griffith University Law School
Cynthia Burnett	BA (Hons) Dip Ed; MA; MEdStuds (UQ)	Education Division Representative, Animals Australia
Carole de Fraga	BA (Hons); MA; Dip Ed (Monash)	Representative, Compassion in World Farming (Australia); Consultant Animal Welfare Issues
Joy Verrinder	BA (UQ); Dip T.; MBA (CQU); MA (Professional Ethics & Governance)(Griffith Univ.)	Strategic Director, Animal Welfare League of Qld
Emma Haswell		Founder & Presenter, Brightside Farm Sanctuary (Tasmania)

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