



THE UNIVERSITY OF
SYDNEY



finalreport

Project code: AHW.119 Dr
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Date published: April 2006
ISBN: 1 74036 909 2

PUBLISHED BY
Meat & Livestock Australia Limited
Locked Bag 991
NORTH SYDNEY NSW 2059

Exploring animal welfare education materials

Meat & Livestock Australia acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

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Abstract

This document reports a survey of current animal welfare education materials relevant to the red meat industries and available to primary, secondary and tertiary (including TAFE and Vocational Education and Training - VET) students.

The survey was informal, yet systematic, using email, telephone, database and internet searches. A number of relevant groups were identified, representing different interests: those that were potential users of animal welfare education resources and/or providers of education and training, and those that were potential producers of animal welfare resources. Both Australian and international sources were searched.

The survey found only limited educational resources in animal welfare focussed on the livestock industries. Although they included video, CD ROM, teaching manuals, print and internet publications there was a lack of relevant Australian material that could be presented in the Australian context. Educational curricula were ad hoc with idiosyncratic features and little benchmarking. Many of these curricula did not align with relevant competencies.

Recommendations included the development of a Meat and Livestock Australia (MLA) website specifically for the welfare of livestock animals, the continuance of the MLA's development of a module for animal welfare in its quality assurance *Level 2 of Livestock Production Assurance (LPA)* and the development of articulated resources and programs that were flexible in their applications

Executive Summary

The Australian Animal Welfare Strategy (AAWS) (Anon, 2005) was endorsed in 2004 and had three goals. In summary, these were:

Goal 1: Achieve a national approach and commitment to high standards of animal welfare

Goal 2: Achieve improvements in animal welfare based on national and international benchmarks.

Goal 3: Achieve effective communication, education and training across the whole community.

Education has a key role in all of these goals. Meat Livestock Australia (MLA) has developed its own Animal Welfare Strategy which is in alignment with the AAWS. The MLA Animal Welfare Strategy lists education/communication as one of the six priority areas for investment. It was with this in mind that the MLA contracted an initial review to determine the available resources and programs for education on the welfare of extensive livestock animals.

Australia's livestock production industry is largely dependent on the export market and consumers overseas are beginning to be concerned about a number of animal welfare issues involving cattle and sheep. Issues of concern include drought, certain standard invasive husbandry conditions and the transportation of livestock. It is inevitable that Australia's approach to animal welfare will come under more international scrutiny and impact on our markets.

The project objectives were to:

- Develop a summary of the key animal welfare educational materials available and the perspective from which they are presented
- Determine the level of demand for animal welfare education resources
- Explore the activities of other organisations in this field
- Develop a list of key contacts within the field of animal welfare education at the primary, secondary and tertiary level
- Make recommendations on what education materials could be developed by MLA for primary, secondary, vocational or tertiary students.

The survey found a number of educational resources in the form of video, CD ROM, teaching manuals, print and internet publications were available. However, many of these were sourced from overseas and had only limited value in the Australian context. There were a number of courses offered at various levels of education (from primary to post-secondary) and those responsible for these courses were reliant in finding and developing their own materials for animal welfare. These materials generally reflected the interest and experience of individuals developing them. No resources were found for livestock (cattle and sheep) for primary education. All individuals contacted across all educational sectors expressed a need for appropriate and relevant resources. From this perspective there is no benchmarking or coordinated national approach.

Three recommendations followed on from this survey. The first would have an immediate impact, namely, that MLA develops an animal welfare website to be a valuable 'shopfront' proactively aligning MLA with the welfare of livestock animals. The second recommendation was that MLA continues the development of an animal welfare module for its quality assurance program within *Level 2 of Livestock Production Assurance (LPA)*. The final recommendation was for the development of articulated resources and programs that were flexible in their applications. As such these resources could be used with minor modifications in all educational programs (for example, in

primary and secondary curricula for English, social studies, civics, science and agriculture). A number of topics were recommended to be included as resources and in programs. These included sentience (consciousness), pain and stress, behaviour, the five freedoms, codes of practice, animal welfare and environment, handling, animal husbandry, transportation, yard and shed design, slaughter, disease and its control, and standard operating procedures.

In conclusion, there is a dearth of resources to teach the welfare of extensive livestock animals across all educational sectors. This lack is further exacerbated by very little relevant Australian material. MLA has a number of options to fill this gap and the consequence will be the alignment with the AAWS and with market expectations. The impact of any recommendation operationalised by MLA and the industry would take several years before being able to be assessed. However, implementation will ultimately be to the national benefit.

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1 Background

The industrialisation of animal agriculture after World War 2 led to a dichotomy in the production of protein for human consumption: intensive versus extensive meat production. An increasing percentage of the world's protein is now produced by intensively farmed animals such as poultry, pork and fish that require high capital and feed inputs offset by high throughput of animals that result in low cost protein. In contrast, extensive livestock production remains relatively competitive through lower capital and feed costs.

It was the intensive farming of animals that brought changes in the way that individuals viewed the welfare of animals for human use and consumption. The traditional ethic of "good husbandry and the prohibition of deliberate cruelty" seemed to be a satisfactory position for extensively farmed animals even if this was based on self-interest. However, the intensive housing of animals represented a completely different approach to animal husbandry to that characterised by farming pre-World War 2. Increasing scientific knowledge about animals including sentience, consciousness, stress and behaviour have been presented by documentaries on television resulting in the public having a better understanding of animals and their relationships to humans. In addition, influential people including philosophers, scientists, social commentators and emerging animal protection movements, reflected on intensive farming and came to consider that the traditional ethic for farming of animals did not seem to be relevant for intensively farmed animals (Rollin, 1995). Increasing standards of education and urbanisation, and the influence of the media, has led to the challenge of the traditional ethic applied to extensive livestock production by various interest groups and the public at large. The impact of drought on extensively farmed animals has been reported in the media and routine husbandry practices are being questioned. Public concern for animal welfare is no longer confined to pets, pigs or poultry. It now encompasses all animals including those that are farmed under extensive conditions. The community expects high standards for the treatment of food animals throughout their lives.

MLA has been proactive in recognising that these social changes will have an impact on the livestock industries through international and local consumers. MLA has anticipated change. It has initiated industry specific animal welfare research and education programs through MLA Livestock Production Animal Welfare Research and Development Program Strategy (<http://www.mla.com.au/TopicHierarchy/InformationCentre/AnimalHealthandWelfare/Animalwelfare/default.htm>) to position itself and the Australian industry as leaders not only in terms of quantity of production, but also in the quality of the welfare of these animals.

The change in the public knowledge of animals and their view of animal welfare matters has been a major driver for the development of the Australian Animal Welfare Strategy (AAWS) (Anon, 2005) that was developed over several years and endorsed in 2004. The AAWS is a national strategy that aims to maintain and improve the high standards of animal welfare in Australia. These standards currently exist through Codes of Practice, regulations and legislation but the AAWS describes a comprehensive vision that covers all sentient species of animals in Australia. This vision includes the care and use of animals, and the impacts of human activity (direct and indirect) on them. The Strategy has identified numerous stakeholders who have diverse interests and differing points of view and these include animal owners; the veterinary profession; animal producers, processors and transporters; animal welfare bodies; researchers; consumers; and government agencies. The AAWS also provides for scientifically based improvements in animal welfare for all sentient animals so that

animal welfare standards are based on the best available scientific information and are acceptable to the broad Australian community.

The AAWS has a number of goals:

Goal 1: Achieve an enhanced national approach and commitment to ensure high standards of animal welfare based on a concise outline of current processes.

Goal 2: Achieve sustainable improvements in animal welfare based on national and international benchmarks, scientific evaluation and research, taking into account changes in whole of community standards.

Goal 3: Achieve effective communication, education and training across the whole community to promote an improved understanding of animal welfare.

The changes in community attitudes anticipated by MLA and the response by government are coincident in all three AAWS goals. Pre-empting Goal 3, the MLA commissioned the University of Sydney to undertake a comprehensive review of the educational resources available for teaching animal welfare of livestock animals across all educational sectors.

2 Project Purpose

The project searched for current education materials relevant to the red meat industries and available to all levels of primary, secondary and tertiary (including TAFE and Vocational Education and Training - VET) students in the area of animal welfare.

Specifically it was to:

- provide a summary of the key animal welfare educational materials available and the perspective from which they were presented
- determine the level of demand for animal welfare education resources
- explore the activities of other organisations eg NFF, RSPCA, AVA and CIWF in this field
- develop a list of key contacts within the field of animal welfare education at the primary, secondary and tertiary level
- make recommendations regarding what education materials could be developed by MLA for primary, secondary, vocational and tertiary students

3 Methodology

3.1 Data collection

A systematic yet informal survey was undertaken using email, telephone, database and internet searches. A number of relevant organisations and individuals within them were identified. Organisations included a range of government entities, post secondary training institutions, animal welfare research and education centres and nongovernmental animal welfare organisations. These organisations were potential users of animal welfare education resources or were potential producers of animal welfare education resources.

3.2 Education sectors surveyed

The different levels of education surveyed were:

1. primary school (K-6)
2. secondary school agriculture via the National and state Agriculture Teachers' Associations
3. secondary school English and social studies
4. agricultural colleges
5. TAFE colleges
6. institutions that provide vocational education for the agriculture industry
7. universities

Potential users of animal welfare education resources were questioned regarding:

1. their incorporation of animal welfare topics into their curriculum
2. their use and/or knowledge of prepared resources
3. their interest in utilising educational resources if they were available.

3.3 Data analyses

The medium of the educational resource and its educational target was listed. This material was classified according to bias which was defined as:

- *Animal welfare* which referred to traditional values that are generally held by mainstream organisations such as the Royal Society for the Prevention of Cruelty to Animals (RSPCA).
- *Animal protection* where views held by individuals and organisations are generally not opposed to the use of animals in all forms, but often have a focus on certain husbandry practices particularly those involving intensive livestock (eg World Society for the Protection of Animals – WSPA, Compassion in World Farming – CIWF)
- *Animal rights* that represent a spectrum of views that oppose the exploitation of animals as property and some people even eschew the keeping of companion animals. The survey did not canvass materials from this end of the spectrum.

4 Results and Discussion

4.1 Results

4.1.1 Existing Audits of Educational Materials

The two audits are listed in Table 9.1.

4.1.1.1 LandLearn (Victorian Department of Primary Industries).

This audit *Livestock Education Material Appraisal* was finalised in November 2005 and is a resources document. It is a summary of information and resources used by teachers for livestock education. This was initiated as a response to increased animal welfare issues in the media and a lack of knowledge about what teachers are teaching regarding animal farming. It was undertaken within the framework of the *Victorian Essential Learning Standards* and in the context of LandLearn's goals of having studies of sustainable agriculture incorporated into schools' curricula.

There are a number of general resources that deal with general agriculture, livestock management, handling and behaviour (including video, print and workbooks) that aligned with different levels of the Victorian primary and secondary curricula. The only animal welfare specific educational material

identified by the audit was the package from Compassion in World Farming (CIWF). Within this package there is a range of topics that focus on intensively farmed animals.

4.1.1.2 Sheep Cooperative Research Centre (CRC).

Survey of Sheep Meat and Wool Vocational and Industry Education Resources (2003) surveyed a number of organisations that are involved in vocational and industry education. There were no resources specific for animal welfare identified by the respondents although a large number are available for flock management. Interestingly, the second part of the report was to identify opportunities for developing new resources. Animal welfare educational material was not mentioned nor identified as a resource deficit.

4.1.2 Education resources for animal welfare or related areas

A number of different forms of resources from both Australia and overseas have been identified and are listed in Tables 9.2-9.4. The classified bias of the materials is also listed in these Tables (ie. Animal Welfare or Animal Protection).

Only two complete packages (Table 9.3) from the World Society for the Protection of Animals (WSPA) Compassion in World Farming (CIWF) were identified. The WSPA program (*Concepts in Animal Welfare*) targets tertiary students especially veterinary undergraduates. This package includes CD ROM of PowerPoint lectures, notes and other supporting material including a bibliography. There are no video resources included. As this package covered the spectrum of views 'Bias' was determined as 'Nil'. This would be expected for materials delivered at the tertiary level.

CIWF have a collection of materials that include DVD, video and print resources that are aimed at primary school children. These resources can be used in the curriculum by teachers, but are not packaged in the same way as *Concepts in Animal Welfare*. Although these are sourced from the UK, an Australian version of the DVD fronted by a well known actor has been produced (*Farm Animals and Us in Australia*). The focus of CIWF is on intensive farming and has an 'animal protection' bias. CIWF also has a collection of written resources for both teacher and children but its main emphasis is on intensively farmed animals with a bias towards animal protection.

A large number of resources have been produced in Australia, UK and USA (Tables 9.2-9.4). These are individual materials (print, video, electronic) that could contribute to a package or training program targeting various education sectors. Many are produced in UK and US and therefore do not have an Australian context. The tables list resources according to country of origin and describe the media and the bias of the resource with Table 9.2 listing Australian resources. These include Codes of Practice, Standard Operating Procedures, Learner Guides and web-based Notes. Apart from the CIWF DVD (*Farm Animals and Us in Australia*) targeting primary school children, there were no audiovisual materials identified that were produced for Australia.

Internationally sourced materials (Tables 9.3-9.4) do have a reduced relevance to the specific issues of animal welfare in Australia. Nevertheless, they are valuable potential resources either to contribute directly to an educational curriculum package, or to provide ideas for what could be appropriate in the Australian situation. Briefly, these materials range from general husbandry to specific animal welfare topics and are in various formats including DVD, video, notes, books and websites. Many of the video resources are produced in the US and have a different audio-visual format. Some are complete packages that focus on a specific topic. For example, Humane Slaughter Association (UK) has complete training packages on different aspects of transportation and the

welfare of animal at abattoirs (Table 9.3). These target the UK livestock industry and may not be as relevant here, as Australia has independent Codes of Practice (COP) and Standard Operating Procedures (SOPs).

The content of the majority of these resources is based on animal welfare science and have a traditional view about animal welfare, ie. good stewardship that is in the best interests of animals.

The demographic target of these covers the complete spectrum: primary, secondary, post-secondary (ie general adult population, who are not necessarily in a qualification program), VET and tertiary sectors. An important gap is that the few resources developed for the primary education sector focus on companion or intensive animals. This is a niche that presents an opportunity for the extensive livestock industries.

4.1.3 Australian training programs/packages that include animal welfare

These are listed in Table 5. Programs that focus solely on animal welfare in Australia are delivered by the university sector to undergraduates (eg University of Melbourne), to veterinary undergraduates (McGreevy and Dixon, 2005) and to postgraduate students although these postgraduate programs (eg Graduate Certificate in Animal Welfare – Monash University) could expand to be less generalist. This latter Graduate Certificate is a generalist program that does not focus specifically on livestock and is delivered by a mix of online classes and residentials over a year. Within the tertiary sector there are units of study that include aspects of animal welfare. For example, the CRC Beef Genetic Technologies Feedlot Management program is a tertiary level unit of study that is available to Fourth Year undergraduates and masters by coursework students through the University of New England. There have been several people from the industry undertake the course, but no formal acknowledgment of their completion of the course is made. The program is being expanded to include sheep and intercalates with several other diploma and masters programs at the University of New England.

Several Australian programs target the VET sector. *Stocksafe* by the NSW Department of Primary Industries (NSWDPI) is based on the National Competency RTE3113A *Identify and draft livestock*. A trainer's manual and student resources are provided. The curriculum consists of four modules: occupational health and safety, animal behaviour, animal welfare and quality assurance. Animal behaviour is reviewed generally and then aspects such as flight zones and strategies for handling in different environments discussed. For animal welfare a range of topics including the five freedoms, codes of practice and the stockperson's responsibilities to ensure the best welfare are covered. *Stocksafe* is run by NSWDPI at Yanco, Tocal and Menangle a number of times each year

Animal Welfare Science Centre (AWSC) has produced a number of training programs in the Prohand series. These target stockpeople who work on dairies and at abattoirs and are based on the successful training package *Prohand Pigs*. These are comprehensive packages that are facilitated by a trainer with groups of approximately 6 people. *Prohand Pigs* takes about 9 hours and begins with an attitude survey that helps the stockpeople to recognise where their attitudes and thus predicted behaviour lie as a starting point to generate attitudinal and behavioural change. The package consists of a comprehensive training manual, interactive CD Rom, videos, posters and group discussions. The computerised component of the *Prohand Pigs* allows stockpeople to do the program at their own pace with review and checks on their progress. The CD Rom includes a series

of reviews and discussions on experimental and field-based research with video footage identifying both appropriate and inappropriate behaviours by stockpeople towards pigs.

4.1.4 International training programs/packages that include animal welfare

None of these were accessed for this Report, but their video resources could be useful for specific incorporation into any Australian package (eg from Humane Slaughter Association UK) and these are listed in Table 9.6.

4.1.5 Australian education programs in which animal welfare topics could be incorporated

A number of programs and courses are available in Australia on agriculture and livestock (Table 9.7). It was outside the brief of this Report to determine curricula, but these courses may incorporate animal welfare but this topic is not mentioned specifically in the course outline. Whether courses do include this area is generally at the discretion of the organisation and/or the educator. For courses offered by TAFE (NSW, VIC) if the lecturer does include animal welfare they develop their own resources, often based on their interest and experience. TAFE NSW has a number of Standard Operating Procedures (eg Appendix 10.4) that must be used in any course about animals (eg agriculture, animal care and attending, veterinary nursing, farrowing etc). This standardises the practical approach across the organisation and also is a quality assurance for such practices.

4.1.6 Vocational Educational Training (VET) Competencies

Australia has a well developed system of training competencies that establish benchmark competencies across all occupations and all levels of qualifications (Table 9.8, Appendix 10.5.1 and 10.5.2). These are detailed and are specific competencies described for animal welfare targeted at two levels – new workers to the livestock industries and existing workers in the livestock industries. These are RTE3136A *Comply with industry animal welfare standards* and RTE4120A *Implement and monitor animal welfare program*. Any developed educational materials must achieve these competencies as only then state funds can be accessed by public Registered Training Organisations (RTOs) for course delivery. They can also be used to count towards completion of traineeship requirements. In addition, material will be more accessible and relevant if in concordance with these standards and be uniform across all state jurisdictions. These are used, for example, in the Agriculture Certificates III and IV programs conducted by TAFE NSW.

4.1.7 Quality Assurance Programs

Several of these are listed in Table 9.9. The proposed quality assurance within *Level 2 of Livestock Production Assurance (LPA)* being developed by MLA will include a module on animal welfare: (<http://www.mla.com.au/TopicHierarchy/IndustryPrograms/LivestockQualitySystems/LivestockProductionAssurance/Level2LPA/default.htm>)

4.2 Demand for animal welfare educational resources

A question was asked of all individuals contacted (Appendix 10.2) whether there would be a demand of animal welfare education resources pertinent to the livestock industries. There was complete unanimity across all education sectors in that such resources are required and would be used.

4.2.1 Primary/secondary sector

The primary/secondary sector agreed that increasing public awareness about animal welfare was extending past companion animal issues. The production of the DVD *Farm Animals and Us in Australia* for distribution in schools by CIWF was evidence for this particular niche. Teachers and officials in several states strongly argued for the need for livestock welfare to be on the agenda for curriculum development. There was a particular plea across all states from agricultural teachers who were aware of this deficit in agriculture teaching. This deficit in teaching animal welfare meant that the curriculum was not in concordance with current public interest in the welfare of livestock. Appropriate educational packages could be incorporated into the general primary curriculum, and in agriculture, social sciences and English programs in the secondary curriculum. It was agreed that any specific resources developed for this sector would create a uniform approach and deliver a common message about animal welfare.

Each state has its own processes for incorporation of resources. The Public, Catholic and Independent primary/secondary school sectors in Queensland were surveyed. All sectors had a specific person responsible for animal welfare in central administration who served a dual role. First, they implemented the legislation and the regulations regarding the use of animals in schools and acted as a liaison for the Schools Animal Ethics Committee. Secondly, they were a reference point for any animal welfare activities and new resources for the teaching of animal welfare. For the Catholic education sector, any resource once reviewed and approved is then linked to specific curricula and then forwarded as a recommended resource for teachers. For the Public sector the resources would be available through a central resource centre that is accessed via the web. Their availability would be notified through the in house journal *Education Views* and the Teachers Union newsletter. Independent schools would be notified generally about the resources and these would also be linked these to specific curricula. It is important to note that state Departments of Education do not develop specific curricula for animal welfare and act simply as a clearing house for any new resources.

4.2.2 Vocational educational training

For Vocational Educational Training, all those contacted in the sector said there was a manifest need for appropriate animal welfare materials. However, if training packages were developed it would be mandatory to use the National Livestock Competencies for the design of any program. Michael Williams, formerly Education Program Leader, Sheep CRC states:

They would both provide trainers and trainees with information about animal welfare issues, legislation and refer to industry or national Codes for animal welfare. One (program) would be designed to support practical training at AQF levels 1-3, while the other would be aimed more at management levels and would support training at AQF4-6. Training providers would be keen to use them as they are under scrutiny for delivery of all training that involves the use of animals.

David Crean (Acting Program Manager - Extensive Agriculture TAFE NSW Primary Industries and Natural Resources Curriculum Centre) considers that:

Any resources developed by MLA would have a wide and immediate use within TAFE NSW, especially if targeted at the two levels described in the earlier email – new workers to the livestock industries and established producers. As an MLA levy payer, I would consider an investment in resources to train workers (as Australian Wool Innovation has done in Shearer and Shedhand Training) worthwhile as a

strategy to protect domestic and export markets. From a TAFE NSW and VET perspective, resources assist in the delivery of a more consistent message across the livestock industries.

If MLA were to produce materials, Julie Buckley, Associate Director, TAFE NSW Primary Industries and Natural Resources Curriculum Centre) committed:

TAFE NSW to assist in assisting the development and trialling of the resources within the various courses we offer. We see the development as very important and utilising some of our material including a new collection of standard operating procedures. It is critical that two sets of material be developed: one from the student's perspective and the other from the teacher's.

4.2.3 Tertiary education

The tertiary sector was also identified as needing to provide additional animal welfare education recognised by a formal qualification. The current Graduate Certificate from Monash University is general and limited in scope. Hannah Forsyth, (Sub-Dean Postgraduate Coursework, Faculty of Veterinary Science, University of Sydney) said:

We have scoped a number of stakeholders in postgraduate education. They have identified the need for a comprehensive Masters Program in animal welfare. There is a need for a program that is less generalist and that incorporates issues that are more relevant to the livestock industries. The Faculty is now beginning a stakeholder analysis and is planning to undertake market research to verify the need.

4.3 Discussion

This survey has found only limited educational resources in animal welfare focussed on the livestock industries. Educational curricula are ad hoc with idiosyncratic features with little benchmarking. Many of these curricula do not align with relevant competencies such as RTE3136A *Comply with industry animal welfare standards* and RTE4120A *Implement and monitor animal welfare program*. More critically, the lack of relevant Australian material that can be presented in the Australian context represents a barrier to the acquisition of skills and knowledge. Relevancy promotes engagement and learning. This is a serious gap in resources to promote a uniform approach to animal welfare by the Australian livestock industries. This lack of resources and a lack of a uniform approach will impede the Goal 3 of the AAWS: *Achieve effective communication, education and training across the whole community to promote an improved understanding of animal welfare*. The community has a good understanding of animal welfare for companion animals, but for cattle and sheep this understanding has the potential to be misinformed especially by the media and organisations that have specific agendas

Australia is also largely dependent on the export market and now consumers here and overseas are beginning to be concerned about a number of animal welfare issues involving cattle and sheep (Phillips, 2005). The vagaries of the Australian climate means that livestock are subjected to drought with its concomitant welfare problems. Certain standard invasive husbandry conditions including marking, mulesing and dehorning are of perennial concern (Fitzpatrick et al., 2006). Transportation of livestock has become important in Europe and the US and Australia's environment provides unique challenges in this area (Petherick, 2005). It is inevitable that Australia's approach to animal welfare will come under more international scrutiny and impact on our markets.

It is this potential scrutiny that has generated the AAWS. Any systematic education program will contribute to all three Goals to achieve a national approach to high standards of animal welfare and achieve sustainable improvements in animal welfare through education and training.

5 Recommendations

MLA should, in cooperation with industry stakeholders and personnel, take leadership in the development of industry specific educational resources thereby continuing its initiatives in animal welfare research. This will add to its current programs of research which continue to strengthen Australia's position as a responsible producer of livestock products. There can be a number of approaches to the multiplicity of gaps in animal welfare education resources. Any approach, whether it is for educational resources or for a training package, must involve the industry, appropriate educationalists, an educational designer, as well as expertise in animal welfare. A focussed approach will be more effective in delivering appropriate outcomes and must target a specific demographic. Any program should be designed to be pedagogically sound, developed in sequential steps, be in alignment with the appropriate national competencies and trialled in the field before implementation. All resources must be available before this latter step occurs.

5.1.1 Recommendation 1

MLA develops an animal welfare website in mla.com.au. This site could be modelled on Veterinary Education and Information Network (VEIN) (<http://vein.library.usyd.edu.au/links/animalwelfare.html>) or the US Animal Welfare Information Center (<http://www.nal.usda.gov/awic/farmanimals/farm.htm>). Material could include animal welfare policies and reports (eg Objective Measures Workshop), relevant research reports from MLA and linkages to documents and other material at other sites. This will be a valuable 'shopfront' proactively aligning MLA with the welfare of animals.

Comments:

- The leadership for increasing animal welfare standards must come from peak industry associations such as MLA. Many producers may be unwilling to think about animal welfare standards and the positive impacts these will have on their enterprises. A staged process must be undertaken leading producers from the awareness that animal welfare is very much on the public agenda (by positive press releases, issue specific extension programs such as transportation) to knowledge of MLA's policies and activity in animal welfare (MLA's Animal Welfare Website). Then a natural progression will occur for personnel to undertake industry specific industry education that will lead to improve industry standards and practice (see next recommendations).
- MLA has many opportunities to expose its stakeholders to the emerging importance of animal welfare to the industry. It could integrate appropriately designed animal welfare sessions into pre-existing and regular national and regional conferences and seminars. Workshops and field days or other practical events could also host segments on relevant welfare issues.

5.1.2 Recommendation 2

MLA continues to develop a module for animal welfare in its quality assurance program. This will have two outcomes. First, producers will improve practice and increase industry standards. Secondly, consumers will be fully reassured that livestock products have been produced under best

practice for animal welfare. This will have direct immediate and/or future impact in both the local and international markets. The animal welfare module could be delivered by those organisations that train for on-farm quality assurance or by MLA itself. If MLA undertakes a Quality Assurance (QA) Program (Animal Welfare) itself it will demonstrate directly its commitment to improve the welfare of animals in the red meat industry.

Comments:

- Through this recommendation MLA can readjust the thinking of the industry regarding the commercial importance of good animal welfare practice.
- Increased welfare standards in the livestock industries have obvious benefits. Productivity and product quality are enhanced through good practices; such practices do not always increase costs yet improved product quality leads to increased returns and an improved competitive position by an enterprise.
- A QA Program (Animal Welfare) will increase the competitiveness of the industry in international markets
- The first participants in a QA program (Animal Welfare) would be industry leaders that would encourage others to develop their skills in a changing market environment.
- The training program would incorporate a personal attitude survey for participants to reflect on their attitudes towards animals, welfare and their usual practices. This will act as a baseline for improvement.
- Suggested topics for development would be sentience, pain and stress, five freedoms, stockpersonship including handling, transportation and good husbandry practices, codes of practice and standard operating procedures.

5.1.3 Recommendation 3

MLA should be active in developing resources that can be incorporated into a number of sector-relevant educational packages. These resources should be strategically targeted to MLA's constituency and utilise its expertise. Resources should be educationally sound, engage the learner and have materials that will promote deep learning. They can be in any format (eg web-based information, CD-ROM, interactive computer programs, DVD, training booklets etc) and be evidence-based and pedagogically sound, delivered in a flexible manner and accessible by people with different learning styles and backgrounds.

There are a large number of topics for which resources could be developed. The choice of these must be context-based and relevant to the program and target demographic. Irrelevant material will not engage the learner and hence deep learning will not ensue. Suggested topics include:

- Sentience (consciousness)
- Pain and stress
- Behaviour
- Five freedoms
- Codes of practice
- Animal welfare and
 - Environment
 - Handling
 - Animal husbandry

- Transportation
- Yard and shed design
- Slaughter
- Disease and its control measures
- Standard operating procedures
- Different attitudes of people and cultures to animals
- Other current issues

Importantly, strategic selection of topics is essential for cost effectiveness and the willingness of organisations to use these resources. At present two specific sectors (primary/secondary and VET/TAFE) have argued strongly for their particular needs and have mechanisms for the incorporation of resources into the curriculum (See Section 4.2).

A separate issue is the development of training programs and/or packages which is the natural extension of the development of educational resources. Any training programs or packages could be articulated through different levels of proficiency. They would not necessarily deliver a formal qualification, but could be recognised by a Certificate of Completion and if articulated with other courses could be recognised as credits towards a specific qualification. Delivery could be through seminars, workshops or stand-alone training sessions, all of which could be supported by the internet or through intranets such as the one operated by TAFE NSW. Training could be undertaken by MLA, TAFE and other Registered Training Organisations (RTOs) which allows delivery in different contexts. Which organisation used the materials and training programs would be through consultation of all stakeholders including training organisations, MLA and those working in industry. Importantly, any training package could be delivered by MLA increasing the market profile of MLA through the skilling of its stakeholders.

Comments:

- The order of priority for resource development hinges on Recommendation 2. Materials for a Quality Assurance Program must be developed first.
- Resources developed by MLA can be utilised by
 - Primary/secondary education
 - VET education
 - MLA-specific programs
- These resources should be on specific topics and should be developed according to the educational sector. Primary and secondary levels of education should not be first priority but can have modified versions of materials developed for the VET sector.
- They could incorporate a collation of pre-existing materials such as Codes of Practice and Standard Operating Procedures (TAFE NSW Primary Industries and Natural Resources Curriculum Centre – see Appendix 10.3.1).
- Irrespective of the nature of the resource it should have two perspectives: one for the teacher (how to prepare the student or class) and the other for the learner (appropriate material in context of the student – websites, information resources and sources, activities, workbooks etc).
- Any resources developed should align with the two national competencies - RTE3136A *Comply with industry animal welfare requirements* (Appendix 10.3.1) and RTE4120A *Implement and monitor animal welfare programs* (Appendix 10.3.2) and accessed from <http://www.ntis.gov.au/>. This will enable public sector providers to gain public funding. Each of these competencies target different Australian Qualifications Framework (AQF) Levels

- For RTE3136A *Comply with industry animal welfare requirements*:
 - AQF level 1 - introduction to the workplace
 - AQF2 - entry level trainee
 - AQF3 - independent operator in practical skills
- For RTE4120A *Implement and monitor animal welfare programs*:
 - AQF4 - supervisor and skilled practitioner
 - AQF5 - manager
 - AQF6 - senior manager

6 Impact on Meat and Livestock Industry – five years time

The meat and livestock industry has recognised a change in community values and has initiated attitudinal change. This shift pre-empted external pressure for such changes especially from overseas markets. Nevertheless, the impact of any recommendation operationalised by MLA and the industry would take several years before being able to be assessed. In the meantime, the attitudes of the community and market continue to evolve at a pace that it is impossible to predict what their stakeholders will demand at the end of 5 years. On this basis, it is imperative that any recommendation adopted by MLA is done so as soon as possible. Recommendation 1 (MLA develops an animal welfare website) can be acted on and be available before other resources/programs.

7 Conclusions

There is a dearth of resources to teach the welfare of extensive livestock animals across all educational sectors. This lack is further exacerbated by very little relevant Australian material. As a consequence there is a market for any educational resource for animal welfare education and potential for the development of training packages. As this Report is written from the perspective of the education sectors, it is critical that the industry via its stakeholders is consulted as to what it sees as priority areas. Nevertheless, MLA has a number of options to fill the inadequacies of this area and the consequence will be the alignment of MLA with the AAWS and with market expectations. MLA should consider where it sees the major impact to occur in the minimum amount of time and start at that point. It is easy to modify materials later for other sectors of the education system and livestock industries that may not have as high a priority. TAFE NSW would be willing to trial any resource aimed at the VET sector. Resources, programs and training packages should be aligned with national competencies, irrespective of the nature of the resource or package.

It is in MLA's interest to be involved proactively in improving the welfare of animals through education both in the eyes of its stakeholders, the public and its national and international markets.

8 Bibliography

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9 Tables

9.1 Education audits

ORGANISATION	RESOURCE	CATEGORY	TARGET	FINDINGS	BIAS	WWW
LANDLEARN	CURRICULUM RESOURCES FOR AGRICULTURE	RECENT AUDIT	PRIMARY-SECONDARY	CIWF PACKAGE FOR SCHOOLS	NA	http://landlearn.netc.net.au/index.htm
SHEEP CRC	SURVEY OF SHEEP MEAT AND WOOL VOCATIONAL AND INDUSTRY EDUCATION RESOURCES	RECENT AUDIT	ALL SECTORS	NO ANIMAL WELFARE RESOURCES IDENTIFIED AS PART OF THE AUDIT	NA	http://www.sheepcrc.org.au/images/pdfs/Final%20resources%20survey%20report%20Sept%2003.pdf

9.2 Education resources for animal welfare or related areas produced for Australia

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
AGRICULTURAL RESOURCE MANAGEMENT COUNCIL ANZ (CSIRO PUBLISHING)	MODEL CODES OF PRACTICE FOR THE WELFARE OF ANIMALS PETPEP	BOOKS	POST SECONDARY	ALL SPECIES INCLUDING SHEEP, BEEF AND DAIRY CATTLE COMPANION ANIMALS	ANIMAL WELFARE	http://www.publish.csiro.au/nid/22/sid/11.htm
AUSTRALIAN VETERINARY ASSOCIATION		TEACHER, STUDENT RESOURCES	PRIMARY		ANIMAL WELFARE	http://www.ava.com.au/petpep/
AUSTRALIAN WOOL INNOVATION	SHEEP BEHAVIOUR AND WELFARE	HTML NOTES	VET	SHEEP HANDLING	ANIMAL WELFARE	http://www.woolinnovati on.com.au/LivePage.aspx?PageId=2711
COMPASSION IN WORLD FARMING	FARM ANIMALS AND US (AUSTRALIAN VERSION)	DVD-TEACHER'S PACK	PRIMARY-SECONDARY-POST SECONDARY	GENERAL	ANIMAL PROTECTION	http://www.ciwf.org/education/resources/full_list.html
CRC INNOVATIVE DAIRY PRODUCTS	ETHICS AND VALUES	CURRICULUM RESOURCES LINKS WEBSITE	PRIMARY-SECONDARY	GENE TECHNOLOGY AND DAIRY CATTLE	ANIMAL WELFARE	http://www.dairycrc.com/www/163/1001127/displayarticle/1001224.html

Table 9.2 Education resources for animal welfare or related areas produced for Australia (cont)

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
AUSTRALIAN NATIONAL TRAINING AUTHORITY (NOW DEST)	LEARNER GUIDES	LIVESTOCK TRANSPORT; LIVESTOCK SLAUGHTER; LAMB MARKING	VET	STANDARD ANIMAL HUSBANDRY AS PART OF RTE 03 RURAL PRODUCTION	NA	http://www.resourcegenerator.gov.au (FOR GUIDES) http://www.dest.gov.au/sectors/training_skills/policy_issues_reviews/key_issues/nts/ (FOR DEST)
QLD DEPARTMENT OF PRIMARY INDUSTRIES	WELFARE OF EXTENSIVE STOCK IN DRY PERIODS	HTML NOTES	POST SECONDARY	BEEF CATTLE	ANIMAL WELFARE	http://www2.dpi.qld.gov.au/animalwelfare/11586.html
QLD DEPARTMENT OF PRIMARY INDUSTRIES	WHAT ARE THE DIFFERENCES BETWEEN ANIMAL WELFARE, ANIMAL ETHIC AND ANIMAL RIGHTS	HTML NOTES	POST SECONDARY	GENERAL	ANIMAL WELFARE	http://www2.dpi.qld.gov.au/animalwelfare/16614.html
QLD DEPARTMENT OF PRIMARY INDUSTRIES	ANIMAL WELFARE AND BEEF CATTLE FEEDLOTS	HTML NOTES	POST SECONDARY			http://www2.dpi.qld.gov.au/beef/6942.html

Table 9.2 Education resources for animal welfare or related areas produced for Australia (cont)

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
RSPCA (VARIOUS STATE BRANCHES)	RESOURCE CENTRES AND MOBILE CLASSROOMS		PRIMARY- FOCUS ON COMPAN- ION ANIMALS VET	GENERAL	ANIMAL WELFARE	REFER TO INDIVIDUAL STATE BRANCHES
TAFE NSW <i>PRIMARY INDUSTRIES AND NATURAL RESOURCES CURRICULUM CENTRE</i>	STANDARD OPERATING PROCEDURES	TEACHER/ LEARNER RESOURCES		ALL SPECIES INCLUDING SHEEP, BEEF AND DAIRY CATTLE	ANIMAL WELFARE	

9.3 Education resources for animal welfare or related areas produced in UK

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
ETHICS AND ANIMAL FARMING	ETHICAL MATRIX	TEACHER-STUDENT RESOURCE	SECONDARY-POST SECONDARY	ETHICS AND DECISION MAKING-INTENSIVE INDUSTRIES	ANIMAL PROTECTION	http://www.ethicalmatrix.net/
HUMANE SLAUGHTER ASSOCIATION	TO MARKET TO MARKET	BOOK, WORKBOOK, CD ROM	VET ESPECIALLY DROVERS	LIVESTOCK		http://www.hsa.org.uk/
HUMANE SLAUGHTER ASSOCIATION	PACKAGES, SHEETS RELATING TO THE WELFARE OF VARIOUS SPECIES IN ABATTOIRS	VARIOUS	VET	RED MEAT ANIMALS	ANIMAL WELFARE	http://www.hsa.org.uk/
HUMANE SLAUGHTER ASSOCIATION	THE ROAD AHEAD - THE WELFARE OF LIVESTOCK IN TRANSIT	TRAINING PACKAGE: VIDEO AND MANUAL	VET	RED MEAT ANIMALS	ANIMAL WELFARE	http://www.hsa.org.uk/

Table 9.3 Education resources for animal welfare or related areas produced in UK (cont)

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
RSPCA UK	RSPCA EDUCATION	VARIOUS - UK TEACHERS' CURRICULUM RESOURCES	PRIMARY-SECONDARY	GENERAL	ANIMAL WELFARE	http://www.rspca.org.uk/servlet/Satellite?pagename=RSPCA/Page/TeachersPortalHome&cid=1086091844592&page=TeachersPortalHomepage
RSPCA UK	SCIENCE: FARM ANIMALS - REPORTS AND RESOURCES	VARIOUS - ONLINE FACT SHEETS AND PRINTED RESOURCES; REPORTS	PRIMARY-SECONDARY	SHEEP; TRANSPORTATION; HUMANE SLAUGHTER	ANIMAL WELFARE	http://www.rspca.org.uk/servlet/Satellite?pagename=RSPCA/RSPCAR edirect&pg=FarmAnimalsReportsandResources
SCOTTISH AGRICULTURAL COLLEGE	ASSESSING FARM ANIMAL WELFARE: THE BODY LANGUAGE APPROACH	RESEARCH NOTE	POST SECONDARY	DAIRY CATTLE	ANIMAL WELFARE	http://www.sac.ac.uk/research/sls/researchnotes/animalbehaviour/assessingfarmanimalwelfare
UNIVERSITIES FEDERATION FOR ANIMAL WELFARE	MANAGEMENT AND WELFARE OF FARM ANIMALS	REFERENCE BOOK	POST SECONDARY	GENERAL	ANIMAL WELFARE	http://www.ufaw.org.uk/
WORLD SOCIETY FOR PROTECTION OF ANIMALS	CONCEPTS IN ANIMAL WELFARE	FULL CURRICULUM RESOURCE	TERTIARY	GENERAL AND WIDE RANGING	NIL	http://www.wspa-international.org/
WORLD SOCIETY FOR PROTECTION OF ANIMALS	WORLD ANIMAL WEEK CURRICULUM GUIDE	GUIDE	PRIMARY	GENERAL	ANIMAL PROTECTION	

9.4 Education resources for animal welfare or related areas produced in US

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
ALBERTA FARM ANIMAL CARE	AFAC EDUCATION RESOURCES	VIDEOS AND TEACHERS' RESOURCES	PRIMARY-SECONDARY	HANDLING AND CARE OF ALL SPECIES	ANIMAL WELFARE	http://afac.ab.ca/education.htm ; http://afac.ab.ca/animalcareinfo.htm#Beef
ANIMAL WELFARE INFORMATION CENTER (US)	INFORMATION RESOURCES ON THE CARE AND WELFARE BEEF CATTLE	EDITORIAL; BIBLIOGRAPHY; WEBSITES	POST SECONDARY	BEEF CATTLE	ANIMAL WELFARE	http://www.nal.usda.gov/awic/pubs/Beef/beef.htm
ANIMAL WELFARE INFORMATION CENTER (US)	FARM ANIMAL PUBLICATIONS	RANGE OF DOCUMENTS AND BIBLIOGRAPHIES	POST SECONDARY	ALL SPECIES INCLUDING SHEEP, BEEF AND DAIRY CATTLE	ANIMAL WELFARE	http://www.nal.usda.gov/awic/farmanimals/farmpubs.htm
FEDERATION OF ANIMAL SCIENCE SOCIETIES (US)	FARM ANIMAL WORKER TRAINING PROGRAM	TRAINING MODULES: VIDEOS AND MANUALS	VET	BEEF AND DAIRY CATTLE HANDLING, TRANSPORTATION	ANIMAL WELFARE	https://ecomm.fass.org/publications/order_form1.asp

Table 9.4 Education resources for animal welfare or related areas produced in US (cont)

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
TEMPLE GRANDIN	PUBLICATIONS AND DVDs ON ANIMAL HANDLING, STRESS AND FACILITIES DESIGN	DVDs-PUBLICATIONS	POST SECONDARY	HANDLING AND CARE OF CATTLE	ANIMAL WELFARE	http://www.grandin.com/
TEMPLE GRANDIN	HUMANE SLAUGHTER; RITUAL KILLING; STRESS; ANIMAL WELFARE; AUDITS; BEHAVIOUR; TRANSPORT; HANDLING	FACT SHEETS, RESEARCH PAPERS	POST SECONDARY	HANDLING AND CARE OF CATTLE	ANIMAL WELFARE	http://www.grandin.com/

9.5 Australian training programs/packages that include animal welfare

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
ANIMAL WELFARE SCIENCE CENTRE	COWCARE/PRO HAND ABATTOIR	TRAINING PROGRAMS	VET	DAIRY CATTLE-ABATTOIR	ANIMAL WELFARE	http://www.animal-welfare.org.au/
FACULTIES OF VETERINARY SCIENCE AUSTRALIAN UNIVERSITIES	INDIVIDUAL UNITS OF STUDY ON ANIMAL WELFARE	FULLTIME COURSES	TERTIARY	GENERAL	NIL	
MONASH UNIVERSITY	GRADUATE CERTIFICATE IN ANIMAL WELFARE	ONLINE COURSE	TERTIARY	GENERAL	NIL	http://www.med.monash.edu.au/psych/student/pgrad/aw-info.html
NSW DEPARTMENT OF PRIMARY INDUSTRY	STOCKSAFE (PROFARM)	SHORT ONSITE TRAINING COURSES	VET	SAFE CATTLE HANDLING AND ANIMAL WELFARE	ANIMAL WELFARE	http://www.dpi.nsw.gov.au/agriculture/profarm/courses/stocksafe

9.6 International training programs/packages that include animal welfare

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
FOOD ANIMAL INITIATIVE FARM (UK)	TRAINING FOR AGRICULTURE AND FOOD INDUSTRY PERSONNEL	ONSITE PROGRAM	VET	ALL SPECIES INCLUDING SHEEP, BEEF AND DAIRY CATTLE	ANIMAL WELFARE	http://www.faifarms.co.uk/Education.htm
HUMANE SLAUGHTER ASSOCIATION	TAKING RESPONSIBILITY	TRAINING PACKAGE: VIDEO AND MANUAL	VET	RED MEAT ANIMALS	ANIMAL WELFARE	http://www.hsa.org.uk/
NATIONAL INSTITUTE FOR ANIMAL AGRICULTURE (US)	BEEF CATTLE HANDLING	TRAINING PACKAGE: VIDEO AND MANUAL	VET	BEEF CATTLE	ANIMAL WELFARE	http://animalagriculture.org/Ed_resources/videos/kit.asp

9.7 Australian education programs in which animal welfare topics could be incorporated

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
AGRICULTURAL MASTERS AUSTRALASIA COLLEGE	VARIOUS LEVELS OF COURSES ON SHEEP AND CATTLE	DISTANCE LEARNING	VET	NOT SPECIFIC - ANIMAL WELFARE NOT COVERED	NA	http://www.agmacollege.com/
AUSTRALIAN AGRICULTURAL COLLEGE CORPORATION	RANGE OF ENTRY LEVEL COURSES FOR AGRICULTURE	CERTIFICATE, DIPLOMA	VET	NOT SPECIFIC - ANIMAL WELFARE NOT COVERED	NA	http://www.agriculturalcollege.qld.edu.au/courses/entry_level/index.htm#agriculture
AUSTRALIAN AGRICULTURAL COLLEGE CORPORATION - DALBY	HANDS ON LEARNING - ANIMAL HUSBANDRY AND MANAGEMENT	PRACTICAL	VET	NOT SPECIFIC - ANIMAL WELFARE NOT COVERED	NA	http://www.agriculturalcollege.qld.edu.au/campus/dalby/hands_on_learning.htm#animal
AUSTRALIAN WOOL INNOVATION	SHEARER AND WOOL HANDLING TRAINING	TRAINING PROGRAM VIA RTOs	VET	SHEEP	NIL	

Table 9.7 Australian education programs in which animal welfare topics could be incorporated (cont)

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
AUSTRALIAN CORRESPONDEN CE SCHOOL	VARIOUS LEVELS OF COURSES ON SHEEP AND CATTLE	DISTANCE LEARNING	VET	NOT SPECIFIC - ANIMAL WELFARE NOT COVERED	NA	http://www.acs.edu.au/courses/product_listings.aspx?catid=Agriculture
CRC BEEF GENETIC TECHNOLOGIES	FEEDLOT MANAGEMENT	TRAINING PROGRAMS	TERTIARY	CATTLE HEALTH AND WELFARE IN FEEDLOTS	ANIMAL WELFARE	http://www.beef.crc.org.au/default.asp?page=/education/feedlot+management
QLD STUDIES AUTHORITY	RTE10103 CERTIFICATE I IN RURAL OPERATIONS, RTE20703 CERTIFICATE II IN RURAL OPERATIONS	CURRICULUM	SECONDARY SCHOOL - VET	ANIMAL WELFARE NOT MENTIONED	NA	http://www.qsa.qld.edu.au/yrs11_12/sas/ghort/html/approachA/index.html
TAFE (NSW)	VARIOUS CERTIFICATE COURSES	DIFFERENT LECTURERS PRODUCE OWN RESOURCES FOR ANIMAL WELFARE	VET	ALL SPECIES INCLUDING SHEEP, BEEF AND DAIRY CATTLE	ANIMAL WELFARE	http://www.lg.tafensw.edu.au/2388/default.htm
TAFE (VIC)	VARIOUS CERTIFICATE COURSES	DIFFERENT LECTURERS PRODUCE OWN RESOURCES FOR ANIMAL WELFARE	VET	ALL SPECIES INCLUDING SHEEP, BEEF AND DAIRY CATTLE	ANIMAL WELFARE	http://www.landfood.unimelb.edu.au/courses/tafe/farmag.html

9.8 Vocational Educational Training (VET) competencies

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
NATIONAL TRAINING INFORMATION SERVICE	COURSES/QUALIFICATIONS AGRICULTURE	SETS COMPETENCY STANDARDS	VET	ANIMAL WELFARE NOT ALWAYS MENTIONED	NA	http://www.ntis.gov.au/cgi-bin/waxhtml/~ntis2/crs.wxh?page=8&searchTitle=&searchCode=&qualvl=0&searchOccupation=&anzsic=A&submit=Search
NATIONAL TRAINING INFORMATION SERVICE	(RTE3136A) COMPLY WITH INDUSTRY ANIMAL WELFARE REQUIREMENTS	SETS COMPETENCY STANDARDS	VET ESP TAFE	SPECIFIC - ANIMAL WELFARE	NA	http://www.ntis.gov.au/cgi-bin/waxhtml/~ntis2/unit.wxh?page=80&inputRef=29835&sCalledFrom=std
NATIONAL TRAINING INFORMATION SERVICE	(RTE4120A) IMPLEMENT AND MONITOR ANIMAL WELFARE PROGRAMS	SETS COMPETENCY STANDARDS	VET ESP TAFE	SPECIFIC - ANIMAL WELFARE	NA	http://www.ntis.gov.au/cgi-bin/waxhtml/~ntis2/unit.wxh?page=80&inputRef=29921&sCalledFrom=std
RURAL TRAINING COUNCIL OF AUSTRALIA	TRAINING PACKAGE - RURAL PRODUCTION RTE03 RTE20103 Certificate II in Agriculture (RTE2131A Care for health and welfare of animals)	SETS COMPETENCY STANDARDS	VET	GENERAL STANDARDS	NA	http://www.rtca.com.au/RP/RP_main.htm

Table 9.8 VET competencies (cont)

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
TAFE NSW	AGRICULTURE CERTIFICATES III AND IV	RTE3136A COMPLY WITH INDUSTRY ANIMAL WELFARE REQUIREMENTS, RTE4120A IMPLEMENT AND MONITOR ANIMAL WELFARE PROGRAMS	VET	ANIMAL WELFARE COMPETENCIES	ANIMAL WELFARE	http://www.lg.tafensw.edu.a u/2388/default.htm

9.9 Quality assurance programs

ORGANISATION	RESOURCE	CATEGORY	TARGET	FOCUS	BIAS	WWW
AUS-MEAT	CATTLECARE	QAP CATTLE	POST SECONDARY	ANIMAL WELFARE NOT MENTIONED	NA	http://www.ausmeat.com.au/programmes/cattlecare/
AUS-MEAT	FLOCKCARE	QAP SHEEP	POST SECONDARY	ANIMAL WELFARE INCLUDED	NA	http://www.ausmeat.com.au/programmes/flockcare/
AUSTRALIAN MEAT INDUSTRY COUNCIL	ANIMAL WELFARE STANDARDS AND MANUAL	POST FARM- GATE MEAT INDUSTRY	POST SECONDARY	ANIMAL WELFARE LIVESTOCK	ANIMAL WELFARE	http://www.amic.org.au/Content_Common/search.aspx?rcs=1&st=animal+welfare
MLA	MLA LIVESTOCK PRODUCTION ASSURANCE LEVEL 2 LPA	QAP LIVESTOCK	POST SECONDARY	ANIMAL WELFARE INCLUDED	ANIMAL WELFARE	http://www.mla.com.au/TopicHierarchy/IndustryPrograms/LivestockQualitySystems/LivestockProductionAssurance/Default.htm

10 Appendices

10.1 Number of people contacted from individual educational sectors

EDUCATIONAL SECTOR	NUMBER
Primary/secondary	16
TAFE and vocational education providers	27
Tertiary	10

10.2 Organisation and individual contacts

ORGANISATION	CONTACT
Agricultural Teachers Association of South Australia	Mal Jurgs: mjjurgs@meningieas.sa.edu.au
Animal Health Australia	Lorna Citer: Lciter@animalhealthaustralia.com.au
Animal Research Review Panel	Margaret Rose: M.Rose@unsw.edu.au
Animal Welfare Science Centre	John Barnett: John.Barnett@dpi.vic.gov.au Paul Hemsworth: paul.hemsworth@dpi.vic.gov.au
Association of Independent Schools QLD	Sue Lunn: slunn@aisq.qld.edu.au
Australian Veterinary Association	ava.com.au
C B Alexander Agricultural College	Cameron Archer: cameron.archer@dpi.nsw.gov.au Ian Blackwood: ian.blackwood@dpi.nsw.gov.au
Catholic Education QLD	Tony Kitchen: tkitchen@qcec.qld.catholic.edu.au
Commonwealth Department of Agriculture, Forestry and Fisheries, Animal Welfare Unit	Peter Thornber: peter.thornber@affa.gov.au
Commonwealth Department of Education, Science and Training	Paul Keegan: paul.keegan@dest.gov.au
Compassion in World Farming	Carole de Fraga: cdefraga@alphalink.com.au
CRC Beef Genetic Technologies	Darryl Savage: Darryl.Savage@une.edu.au.
Gordon Institute of TAFE	John van Cleef: jvc@gordontafe.edu.au
LandLearn	Ann Fagan: Ann.Fagan@dpi.vic.gov.au
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Murdoch University, Veterinary and Biomedical Sciences	Teresa Collins: T.Collins@murdoch.edu.au
National Association of Agricultural Educators	Andrew Cosby: ac@emc.vic.edu.au

Exploring animal welfare education materials

ORGANISATION

National Farmers' Federation

NSW Association of Agriculture Teachers inc

NSW Department of Primary Industry Animal Welfare Branch

NSW Department of Primary Industry Animal Welfare Branch

NSW Department of Primary Industry,
Elizabeth Macarthur Agricultural Institute

NSW Farmers Association

QLD Department of Education

QLD Department of Primary Industries and Fisheries

QLD Department of Primary Industries and Fisheries,
Animal Welfare Unit

QLD Department of Primary Industries and Fisheries,
Animal Welfare Unit

Queensland Agriculture Teachers Association

RSPCA Australia

RSPCA NSW

Sheep Cooperative Research Centre

TAFE NSW

TAFE NSW - Western Sydney Institute

University of Melbourne, Land and Food Resources
TAFE Farming and Agriculture

University of New England, School of Rural Science
& Agriculture

University of QLD, Centre for Animal Welfare and
Ethics

University of Sydney, Faculty of Veterinary Science

University of Sydney, Thyne Reid Unit, Faculty of
Veterinary Science

University of Wollongong, Faculty of Education

VIC Department of Primary Industry, Bureau of Animal
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10.3 Key contacts in educational sectors

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10.4 Example Standard Operating Procedure (TAFE NSW)



Animal Welfare Standard Operating Procedure

Oral Medication of Cattle

Reference Number	CTL003	
Dates	Issue: 1-3-2006	Review: By 1-3-2009
Purpose	To administer liquid medication to cattle	
Compliance	Relevant curriculum documentation must be used for the context of this activity. An approved "Animal Teaching Authority" must be gained prior to conducting this activity.	
Alternatives	Abattoir samples, mannequins	
Preferred Location	Cattle yards with a crush and head bail on TAFE or industry premises	
OHS See the document 'Safety with Cattle' for further details	Specific issues to be aware of for this activity include keeping fingers clear of the animal's mouth, having an awareness of cattle behaviour in confined spaces e.g. crush injuries, wearing appropriate personal protective equipment (PPE) and washing hands after the procedure	
Animal Safety See the document 'Safety with Cattle' for further details	Specific issues to be aware of for this activity include correctly identifying the animal to be medicated, ensuring adequate restraint of the animal, using the correct dose for the animal and taking care not to damage the mucosa of the mouth	
Preparation	<ul style="list-style-type: none"> • Select appropriate equipment • Carry out equipment maintenance • Calibrate equipment • Estimate body weight • Note withholding period • Calculate dose rate • Restrain animal in a head bail 	
Procedure	<ul style="list-style-type: none"> • Keep animal stationary during the procedure • Gently pass the drench gun from the side to the back of the mouth over the tongue • Release medication at back of tongue taking care it does not enter the trachea • Gently remove drench gun 	

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	<ul style="list-style-type: none">• Ensure medication is swallowed and not “spat out”• Check that drench gun is working properly as required at regular intervals
Post Procedure	<ul style="list-style-type: none">• Remove animal from restraint and return to paddock• Observe animals• Wash/disinfect equipment and hands
Associated SOPs	CTL033 Muster and yard, CTL023 Handle cattle, CTL036 Restrain cattle using a crush
Metadata	cattle, administer treatments, medication, oral, drench

10.5 Vocational competencies in animal welfare

RTE3136A Comply with industry animal welfare requirements (<http://www.ntis.gov.au>)

Description

This competency standard covers the process of complying with industry animal welfare requirements in the production of livestock. It requires the ability to implement animal welfare practices, implement standard operating procedures and report problems that affect animal welfare. Complying with industry animal welfare requirements requires knowledge of animal welfare requirements, animal production processes, Hazard Analysis Critical Control Point (HACCP) approach to quality assurance, and enterprise policies, guidelines and standard operating procedures relating to animal welfare.

Elements of Competency and Performance Criteria

National Code	Element Name
RTE3136A/01	Apply animal welfare practices <ul style="list-style-type: none">1.1 Elements of the industry animal welfare requirements are determined.1.2 Hazards to animal welfare are identified for work area according to enterprise guidelines and standard operating procedures.1.3 Critical control points for work area are determined according to workplace procedures.1.4 Record keeping on animal welfare is completed according to industry QA requirements.
RTE3136A/02	Comply with standard operating procedures <ul style="list-style-type: none">2.1 Standard operating procedures in respect to animal welfare requirements are implemented in accordance with enterprise requirements.2.2 Non-conformance is reported to supervisor according to enterprise/industry requirements.2.3 Corrective action taken in accordance with enterprise policy and procedures.
RTE3136A/03	Report problems that affect animal welfare <ul style="list-style-type: none">3.1 Recognise potential or existing animal welfare problems.3.2 Identify instances of problems of animal welfare from specifications or work instructions.3.3 Report variation and potential problems to supervisor/manager according to enterprise guidelines.

Key Competencies

Key Competency	Examples of Application	Performance Level
How are activities planned and organised?	Examples of how the Key Competencies 2 apply in this unit are not provided	
How are problem solving skills applied?	Examples of how the Key Competencies 2 apply in this unit are not provided	
How are mathematical ideas and techniques used?	Examples of how the Key Competencies 1 apply in this unit are not provided	
How is use of technology applied?	Examples of how the Key Competencies 1 apply in this unit are not provided	
How is team work used within this competency?	Examples of how the Key Competencies 2 apply in this unit are not provided	

Range Statement

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

What **elements** of the industry animal welfare requirements should be considered?

- These include Hazard Analysis Critical Control Point (HACCP) charts, mission statement, work instructions, corrective action and monitoring procedures, standard operating procedures, and enterprise and industry policies and welfare code of practice.

What animal welfare **requirements** may be relevant to this competency standard?

These include:

- housing and accommodation for livestock
- space allowances and/or stocking densities
- equipment including feeders and waterers, environmental control equipment and back-up systems, and alarms in case of equipment failure
- lighting
- ventilation including fresh air, dust filters, humidity, and noxious gases
- temperature including cooling and heating, and extreme weather conditions
- protection from predators, vermin, fires and floods
- food with diet containing adequate nutrients
- water, provision of cool water in summer and checking it is not contaminated or deleterious to health

- health and distress. Signs of ill health in livestock may include reduced food and water intake, reduced production, changes in the nature and level of their activity, abnormal condition, or changed physical features. Evidence of behavioural changes may indicate ill health or distress, or both
- transport of livestock
- handling of livestock by stock people.

What **hazards** may be relevant to this competency standard?

These may include:

- physical hazards where foreign objects are present in animals
- chemical hazards resulting from residues such as antibiotics, pesticides, alkaloids, and other substances used in animal production
- biological hazards where contamination is from other animals (e.g. mice, rats, cats), poor housing/transport conditions and dirty water affects animal health and food quality
- animal health hazards resulting from poor handling of animals, unhealthy or diseased animals, extreme weather conditions, poor loading and transport conditions, and time off feed.

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

Evidence Guide

What evidence is required to demonstrate competence for this standard as a whole?

Competence in complying with industry animal health requirements requires evidence that industry animal welfare requirements have been successfully understood and complied with.

The skills and knowledge required to comply with industry animal welfare requirements must be **transferable** to a range of work environments and contexts. For example, this could include different animals, production systems, and industry animal health requirements.

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this unit are listed below:

- industry animal health requirements
- animal production processes
- enterprise policies, guidelines and standard operating procedures relating to animal welfare
- enterprise OHS requirements

- animal health and welfare
- animal handling techniques
- codes of practice for welfare.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, some complementary skills are required. These skills include the ability to:

- implement animal welfare practices
- implement standard operating procedures
- report problems that affect animal welfare
- handle livestock in a humane and caring manner.

What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

How can **communication of ideas and information ()** be applied?

- Through record keeping and reporting to management as required.

How can **information be collected, analysed and organised ()**?

- Through complying with standard operating procedures.

How are **activities planned and organised (2)**?

- According to industry approaches to animal welfare.

How can **team work (2)** be applied?

- Through teamwork in implementation of the animal welfare.

How can the use of **mathematical ideas and techniques (1)** be applied?

- Through recording of data according to SOPs.

How can **problem-solving skills (2)** be applied?

- Through recognising variation and non-compliances, and undertaking corrective work and/or reporting to supervisors.

How can the **use of technology (1)** be applied?

- Through use of computers and communication systems.

Are there other competency standards that could be assessed with this one?

- This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to the **Assessment Guidelines**. Further advice may also be sought from the relevant **sector booklet**.

Summary Details

Competency Standard: [\(RTE03\) Rural Production](#)

Unit incorporated within the following Training Package(s): [\(RTE03\) Rural Production](#)

10.5.1 RTE4120A Implement and monitor animal welfare programs (<http://www.ntis.gov.au>)

Description

This competency standard covers the process of implementing and monitoring animal welfare programs within a livestock production enterprise. It requires the ability to provide information to the work group about animal welfare, facilitate the participation of workers in complying with animal welfare guidelines, implement and monitor enterprise programs for animal welfare, dealing with animal welfare emergencies and maintain animal welfare records. Implementing and monitoring the enterprise animal welfare program requires knowledge of animal welfare issues in the industry, relevant animal welfare legislation and codes of practice, and enterprise and industry animal welfare procedures and practices.

Elements of Competency and Performance Criteria

National Code	Element Name
RTE4120A/01	<u>Provide information about animal welfare</u> 1.1 Relevant provisions of animal welfare legislation and codes of practice are accurately and clearly explained to the work group. 1.2 Information on enterprise animal welfare policies, procedures and programs is provided in a readily accessible manner and is accurately and clearly explained to the work group. 1.3 Information about identified animal welfare requirements is regularly provided and is accurately and clearly explained to the work group.
RTE4120A/02	<u>Facilitate the participation of workers in animal welfare compliance</u> 2.1 Enterprise procedures for compliance on animal welfare issues are implemented and monitored. 2.2 Procedures whereby workers report animal welfare hazards , risks and action taken to control risks, are clearly described to the work group. 2.3 Issues raised on animal welfare are dealt with and resolved promptly or referred to the appropriate personnel for resolution in accordance with workplace procedures.
RTE4120A/03	<u>Implement and monitor enterprise animal welfare procedures</u> 3.1 Existing and potential hazards to animal welfare which are identified are reported so that effective remedial measures are implemented. 3.2 Work procedures to control animal welfare risks are implemented by the work group and regular monitoring occurs to ensure ongoing adherence and effectiveness of animal practices. 3.3 Inadequacies in allocation of resources to ensure animal welfare are identified and reported to management.

RTE4120A/04	<p><u>Implement workplace procedures for dealing with animal welfare emergencies</u></p> <p>4.1 Workplace procedures for dealing with animal welfare emergencies are implemented where necessary to ensure that prompt and effective control action is taken.</p> <p>4.2 Animal welfare emergencies are reported in accordance with established enterprise procedures.</p> <p>4.3 Measures to prevent recurrence and minimise risk of animal welfare emergencies are implemented.</p>
RTE4120A/05	<p><u>Implement and monitor enterprise procedures for providing animal welfare training</u></p> <p>5.1 Animal welfare induction and training needs are identified accurately.</p> <p>5.2 Arrangements are made for meeting identified animal welfare training needs in both on and off-the-job training programs in consultation with relevant parties.</p>
RTE4120A/06	<p><u>Implement and monitor enterprise procedures for maintaining animal welfare records</u></p> <p>6.1 Animal welfare records for work area are accurately and legibly completed in accordance with workplace and legislative requirements for record keeping.</p> <p>6.2 Aggregate information from animal welfare records is used to identify potential hazards to animal welfare and monitor compliance procedures within work area according to enterprise procedures and within scope of responsibilities.</p>

Key Competencies

Key Competency	Examples of Application	Performance Level
How can information be collected, analysed and organised?	Examples of how the Key Competencies 2 apply in this unit are not provided	2
How are ideas and information communicated within this competency?	Examples of how the Key Competencies 2 apply in this unit are not provided	2
How are activities planned and organised?	Examples of how the Key Competencies 2 apply in this unit are not provided	2
How are problem solving skills applied?	Examples of how the Key Competencies 2 apply in this unit are not provided	2
How are mathematical ideas and techniques used?	Examples of how the Key Competencies 2 apply in this unit are not provided	2
How is use of technology applied?	Examples of how the Key Competencies 2 apply in this unit are not provided	2

How is team work used within this Examples of how the Key Competencies 2 competency? apply in this unit are not provided

Range Statement

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment requirements may depend on the work situations available.

Which **animal welfare requirements** may be relevant to this unit?

Animal welfare requirements can include:

- housing and accommodation for livestock
- space allowances and/or stocking densities
- equipment including feeders and waterers, environmental control equipment and back-up systems and alarms in case of equipment failure
- lighting
- ventilation including fresh air, dust filters, humidity, and noxious gases
- temperature including cooling and heating, extreme weather conditions
- protection from predators, vermin, fires and floods
- food with diet containing adequate nutrients
- water including sufficient drinkable water to meet livestock physiological requirements, provision of cool water in summer and checking it is not contaminated or deleterious to health
- monitoring for signs of ill health or distress, such as reduced food and water intake, reduced production, changes in the nature and level of their activity, abnormal condition or changed physical features or behaviour
- transport of growing and adult livestock
- procedures for the humane destruction of livestock
- proper animal handling techniques.

What **hazards** may be relevant to this competency standard?

These may include:

- physical hazards where foreign objects are present in animals
- chemical hazards resulting from residues such as antibiotics, pesticides, alkaloids and other substances used in animal production

- biological hazards where contamination from other animals (eg mice, rats, cats), poor housing/transport conditions and dirty water affects animal health and food quality
- animal health hazards resulting from poor handling of animals, unhealthy or diseased animals, extreme weather conditions, poor loading and transport conditions, and time off feed.

What may be included to **implement and monitor** enterprise procedures?

- Supervision of the application of animal welfare principles and compliance with relevant legislation and codes of practice in each state, regular inspections, training records, record analysis including the duties and responsibilities of all parties.

For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.

Evidence Guide

What evidence is required to demonstrate competence for this standard as a whole?

Competence in implementing and monitoring the enterprise animal welfare program requires evidence that knowledge and skills has been applied in the implementation and monitoring of an enterprises animal welfare program as set out in the element and performance criteria of this competency standard and according to enterprise guidelines and relevant acts.

The skills and knowledge required to implement and monitor the enterprise animal welfare program must be **transferable** to a range of work environments and contexts. For example, this could include different workplaces, work teams, livestock types/classes and production systems.

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this unit are listed below:

- animal health and welfare requirements, practices and procedures.
- animal physiology.
- relevant animal welfare legislation and codes of practice.
- industry animal health requirements
- animal production processes
- enterprise policies, guidelines and standard operating procedures relating to animal welfare.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

- provide information to the work group about animal welfare.
- facilitate the participation of workers in animal welfare compliance
- implement and monitor enterprise animal welfare procedures
- implement workplace procedures for dealing with animal welfare emergencies
- implement and monitor enterprise procedures for providing animal welfare training
- implement and monitor enterprise procedures for maintaining animal welfare records.

What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

How can **communication of ideas and information (2)** be applied?

- Provide regular updates on animal welfare compliance.

How can **information be collected, analysed and organised (2)**?

- With completion of records in the workplace, implementing relevant animal welfare procedures, and providing accessible information on enterprise animal welfare policies, procedures and programs.

How are **activities planned and organised (2)**?

- By organising meetings to provide updates and provide information on animal welfare to staff.

How can **team work (2)** be applied?

- By consulting with staff on animal welfare compliance issues.

How can the use of **mathematical ideas and techniques (2)** be applied?

- By collecting and recording animal welfare related data/statistics.

How can **problem solving skills (2)** be applied?

- By determining best possible options to address animal welfare problems as they arise.

How can the **use of technology (2)** be applied?

- By using word processor/email for communications.

Are there other competency standards that could be assessed with this one?

- This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to the **Assessment Guidelines**. Further advice may also be sought from the relevant **sector booklet**.

Summary Details

Competency Standard: [\(RTE03\) Rural Production](#)

Unit incorporated within the following Training Package(s): [\(RTE03\) Rural Production](#)
