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World Livestock Export Standards

A comparison of development processes, systems and outcomes achieved

Abstract

Livestock exporting industries around the world are under pressure to demonstrate that they have developed and applied systems for delivering acceptable animal welfare outcomes. To this end, a country wanting to demonstrate its capacity to achieve acceptable outcomes might point to the existence and relative merits of its supporting standards. But there are many countries participating in livestock trading with differing levels of economic development, reliance upon regulatory systems and attitudes regarding animal welfare. Moreover, environmental circumstances vary throughout the world and therefore uniform standards are not always necessary to bring about uniform outcomes. Ultimately, the livestock export standards applying within a particular country will reflect the animal welfare expectations of the constituency. Because these expectations vary between countries, the specificity and rigor of inter-country standards also vary.

This study compares the specificity and rigor of the livestock export standards applying in individual countries that participate significantly in the trade. The livestock export standards applying in Australia are used as a benchmark for contrasting the standards applying in all other countries. This is done in the first instance to highlight the relative status of the Australian standards and to identify scope for making improvements. However, the wealth of detail revealed by the benchmarking could serve as a platform for other countries to develop and improve their own standards.

The study confirmed that there are no formal systems in place in other countries that would add significantly to the effectiveness of the Australian livestock export standards and from this point of view our standards should be considered ‘high quality’ and not requiring immediate or drastic revision. The international comparison of standards revealed considerable variation in quality ranging from ‘no evidence of any standards’ in some countries to ‘proof of detailed and rigorous standards’ in others.

Executive Summary

Transporting livestock long distances and across national borders has become a subject of increasing interest for animal welfare advocates and consequently all those associated with the trade. It is generally agreed that maintenance of the trade is dependent on achieving animal welfare outcomes that are acceptable to the wider community. Among a raft of initiatives, export operators in Australia have sought to achieve acceptable outcomes by investment in research and development (R&D) regarding the welfare needs of animals and by subsequently putting in place mechanisms designed to meet these needs during transportation. A popular mechanism for linking R&D with actual practices is documented and published standards. In this study, standards are defined as published specifications that inform operators about what they must do at each stage of the transportation process in order to maximise their chances of achieving acceptable outcomes. The existence of standards, so defined, is presumed to be the single best indicator of a 'strong and effective regulatory environment'.

The study has compared the livestock export standards applying in all countries that participate significantly in the trade. In the first instance, this was done for the purpose of benchmarking the livestock export standards applying in Australia. The benchmarking process revealed that Australia has world-best livestock export standards in terms of coverage (of species and phases of transportation) and capacity to deliver acceptable outcomes (measured against animal welfare indicators).

The benchmarking study identified a large range in the quality of livestock export standards. For some export nations we could find no evidence of standards. At the other end of the range, represented by countries such as Australia, we found proof positive of detail and rigorous standards. Our assessment and rating of the standards can be validated by using the website addresses listed in the tables and appendices of the report. These details, combined with the discussions throughout the report (particularly in regard to key aspects of an effective regulatory framework) may serve as a platform for other countries to develop and enhance their own standards and assist in efforts to harmonise standards globally. We believe the comparison process serves to highlight the role of standards in a complex industry where high-level and ongoing cooperation is required between operators, independent auditors and government officers.

Our major conclusion is that there are no formal systems in place in other countries that would add significantly to the effectiveness of the Australian livestock export standards and from this point of view, our standards should be considered 'high quality' and not requiring immediate or drastic revision. Proof of this conclusion rests upon several observations:

- Australia has publicly documented and free-standing standards for each of the six phases of livestock exporting by transportation
- In 2006 the Australia livestock export standards have already undergone several revisions in response to advances in knowledge and understanding of animal welfare and changes in community expectations
- The standards themselves are developed by government officers with a detailed knowledge of the industry, supplemented by consultations with operators and independent experts

- The absence of any features within the standards of other countries that would significant add to the quality of the Australian standards.

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1 Understanding livestock transportation

1.1 Economic drivers of livestock transportation

Proponents of freer trade are often heard to say 'trade is better than aid'. By this they mean that the economies of third world countries will benefit more from being allowed to exchange goods and services across borders than they will if given handouts by richer nations. World forums continue to emphasise the importance of trade between diverse nations and it appears the political will to expedite the associated processes is gathering pace. However, there is a vast gulf between the high ideals of freer world trade and the practical realities of exchange between any two countries. Nowhere is this more apparent than in the case of livestock trading among nations.

Many of the world's poorest nations are heavily dependent on livestock for subsistence and generation of foreign exchange. Short of developing a meat-processing sector, it must be presumed that these countries will only expand their participation in trade through livestock exporting. To the extent that animal welfare is related to affluence, the welfare of animals in third world countries will be assisted most by putting in place measures (such as conditions of trade) that lift the living standards of people in these countries. Elsewhere, education programs will lift welfare standards. Despite livestock exporting being challenged on many fronts, it will be assisted by upward harmonisation of the outcomes applying to animal health and welfare. In Figure 1, welfare is shown as sub-set of animal health.

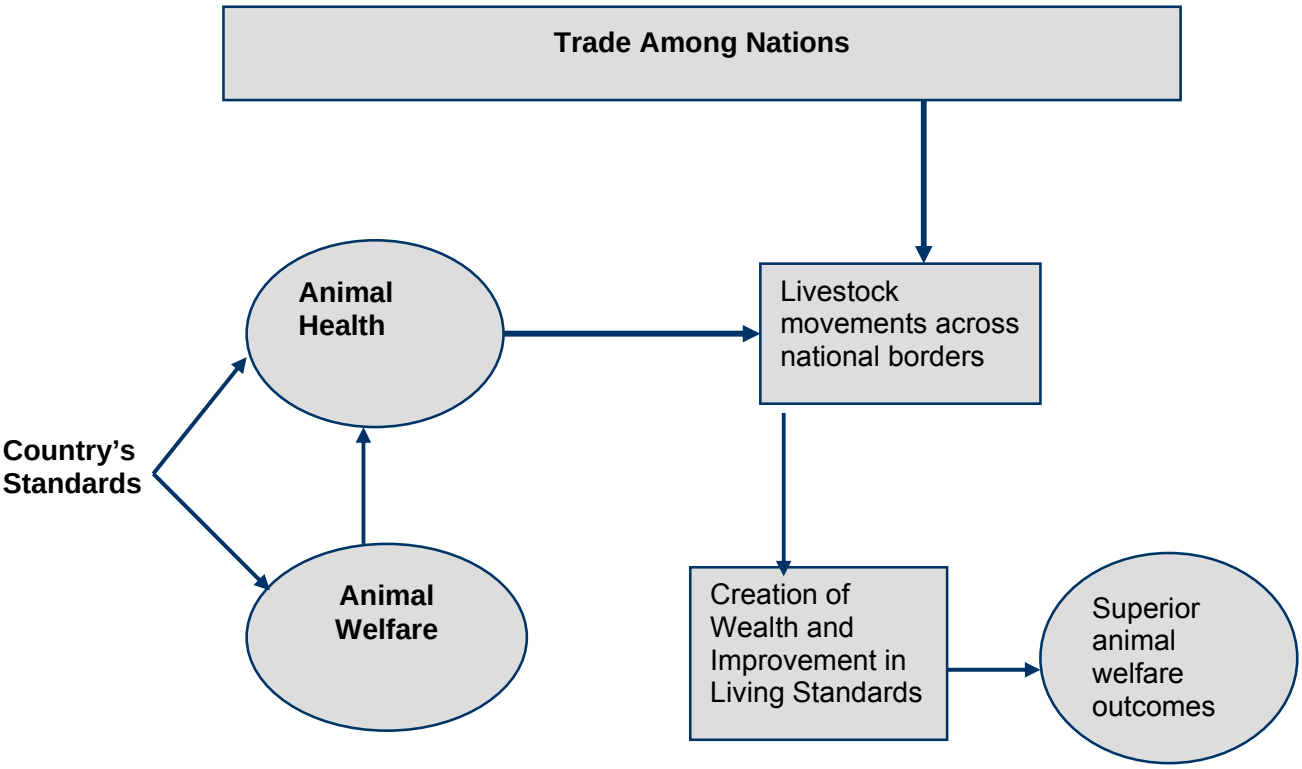

Figure 1: Linkages between freer trade, livestock movements and protocols

Australia is a 'first world' country and the largest livestock-exporting nation[1]. But many of the countries exporting and importing livestock are third world countries with vastly differing attitudes toward animal welfare and with differing capacities to implement systems that might safeguard animal health and welfare during transportation. However, transportation distances are often relatively minor and may require only hours or a few days to complete – rather than weeks.

While it is not presumed that all countries need or want the same set of standards for exporting livestock, it will be in the interests all nations participating in livestock transportation to work toward implementation of standards designed to deliver acceptable animal health and welfare outcomes. This review will assist the quest for more effective standards worldwide by identifying and comparing livestock exporting standards between nations.

1.2 The special challenges that confront livestock exporting

Challenges that confront livestock transportation are outlined below.

Transportation of live animals: Most animal products that are traded between nations are denatured and therefore issues of live health and welfare are not relevant considerations. With live animals, however, the transportation function must satisfy various welfare standards depending on the parties involved and how they empathise with basic animal needs. The Farm Animal Welfare Council in the United Kingdom has formulated 'Five Freedoms' for assessing the welfare of animals that are relevant to livestock transportation and these provide an insight into the conditions that might be required to achieve acceptable welfare.

- *Freedom from hunger and thirst* – by ready access to fresh water and a diet to maintain health and vigour
- *Freedom from discomfort* – by providing an appropriate environment including shelter
- *Freedom from pain, injury and disease* – by rapid diagnosis and treatment of disease or injury
- *Freedom to express normal behaviour* – by providing sufficient space, proper facilities and company of the animal's own kind
- *Freedom from fear and distress* – by ensuring conditions and treatments that avoid mental suffering.

Long distance transportation has the potential to be hazardous by virtue of the time it takes, changing climatic conditions, air quality on the carrier itself and the limited space that might be available for each animal. Logically, these challenges to animal welfare act as challenges to livestock exporting.

Contagious diseases: Livestock trading between nations is greatly affected by disease considerations that are quite separate and different from welfare considerations. One of Australia's

[1] Australia is the world's largest livestock exporter in terms of numbers but not in terms of value. This situation is explained by the dominance of sheep and goats relative to cattle (84% versus 16% respectively). The value of livestock exports from France is almost three times greater than that exported from Australia due to the preponderance of cattle in the French statistics. Source: http://faostats.fao.org/

competitive advantages in livestock exporting is the absence of major transmissible diseases. Historically, this is well recognised. The Terrestrial Animal Health Code developed by the World Organisation for Animal Health (OIE) is a living document that details health measures to be used to avoid the transfer of agents pathogenic for animals or humans, while avoiding unjustified sanitary barriers. The diseases listed by the OIE are those for which requirements may be imposed on the exporting country by the importing country and can, therefore, affect the movement of livestock between countries. Diseases such as foot and mouth and bovine spongiform encephalopathy (BSE/mad cow disease) have high profiles but many other diseases can potentially restrict trade. Furthermore, diseases of minor economic importance under extensive grazing conditions may become important under transportation conditions as evidenced by Australia's recent experience with contagious ecthyma (scabby mouth) in sheep destined for Middle Eastern markets.

Economic considerations: Livestock exporting is a commercial activity with profitability largely tied to the operator's capacity to contain costs. From this standpoint, animal welfare standards are a 'problem' where they are perceived by operators to add more to costs than they return through saleable product. The traditional 'solution' to this conflict has been regulations that force the operator to meet standards and subsequently welfare outcomes that accord with the attitudes and expectations of the wider community. Under this scenario, welfare is seen as the concern of the regulator, leaving the exporter free to concentrate on the commercial aspects of the business. This situation highlights the importance of an effective regulatory framework where operators can be confident that all players are being treated the same.

Whilst coercion is likely to remain the most effective way of achieving acceptable outcomes for some time, there might be better solutions going forward. The optimal solution would come through high-level coalescence between the aims and attitudes of operators and those of the community at large. This is evident within the Australian export industry where more and more exporters are accepting responsibility for animal welfare outcomes and accepting that any implications stemming from animal welfare legislation are aimed directly at the principals of the relevant business houses. Operators are also looking for welfare 'products' that are less costly. Clearly there is a great need for R&D that will improve animal welfare without adding to the cost of livestock selection, assembly and transportation.

Extension of responsibilities: Historically it was presumed that responsibility for the welfare of a consignment of livestock resided completely with their owner or custodian at a time and place. Under this proposition, transportation resulted in complete transference of responsibility for welfare of the livestock from the exporter to the shipper and thence to the importer. But with globalisation and emergence of a more aggressive media (that has the ability to shape and propagate popular opinion) has come the notion of sharing responsibilities beyond one's sphere of physical influence. Thus importing nations make demands on the exporter regarding standards and exporting countries are implicitly vested with a 'contingent interest' in the livestock's welfare that would at least prefer the importing country to uphold and apply particular welfare standards.

2 Project Objectives

2.1 Primary Objectives

The countries reviewed by this study include Australia, New Zealand, Brazil, Argentina, Chile, Uruguay, Mexico, China, South Africa, Ireland, the US and UK, Canada and various African and European countries. The primary tasks prescribed for the study included those list below:

- Record a comprehensive list of livestock export air and sea standards for all those countries exporting cattle, sheep and goats that have documented standards.
- Present these standards on the basis of on-farm, land transport, registered premises, vessel preparation, on-board sea and air standards so as to allow comparison with the Australia standards format to allow meaningful comparisons to be made
- Develop criteria for the purposes of benchmarking the various standards.
- Identify significant inconsistencies in the standards and any gaps in knowledge needed to support the standards.
- Compare and contrast methods used to develop standards including but not restricted to processes for consultation and use of experts appropriate to each link along the export chain.

2.2 Related objectives

In the process of comparing the standards applying in different countries, the study attempts to address several related objectives including the following:

1. Prescriptive demands placed on exporters through standards
2. Degree of fit and relevance to the process
3. The outcome the particular standard is designed to achieve
4. Supporting rationale for the standard including assessment of the scientific basis
5. Animal welfare implications
6. Commercial implications
7. Ease of verification of compliance
8. Compliance arrangements, performance measures and reporting of outcomes.

It will be useful to reflect on the significance and common themes implicit in several of the ‘related objectives’ above. Objectives 3, 4 and 5 dealing with outcomes (that the standards are designed to achieve), the supporting rationale (behind the standards) and the animal welfare implications (of the

standards) are briefly discussed below. Objectives 7 and 8 (verification of compliance) are also related and are discussed in section 2.5.

2.3 Common themes behind the origin of standards

Because they indicate to the exporter what he or she must do in order to achieve prescribed outcomes, standards alone have the potential to satisfy the expectations of the local constituency. Clearly the role and rationale of standards is to bring about acceptable animal welfare outcomes and the impact of 'good' standards upon animal welfare is necessarily positive. In practice, however, there exists a raft of mechanisms that work together to achieve compliance and protect expectations surrounding animal welfare. For example, legislation is needed to define the required outcome (as perceived by the political process in a particular jurisdiction) and specify how people qualify to participate in the trade and what punitive implications stem from failure to comply. However, legal stipulations must be careful not to crowd-out higher-order forms of regulation such as quality assurance and voluntary commitment by operators to good outcomes. Table 1 contrasts legislation, regulations, standards and codes as they might apply to animal welfare throughout Australia. The purpose of the table is to demonstrate in simple terms the language and linkages applying to the welfare dimension of livestock management.

Table 1: Achieving compliance for the example of animal welfare in Australia

Instrument	Scope	Current situation
Legislation	State laws to give effect to policy relating to animal welfare	While animal welfare legislation varies between states its effect throughout Australia is to prevent cruelty to animals.
Regulations	Details of how legislation is interpreted and applied in practice	Linked to legislation by provisions. Spells out the details of how the legislation will be interpreted and enforced and the associated penalties. Can be changed often and at short notice.
Standards or Directives	Actions and systems that must be followed to achieve a specified and acceptable outcome	Not yet the basis for animal welfare legislation within Australia. The development of standards uses contemporary knowledge to specify the actions and systems that must be adopted. Often based on objective criteria coming out of latest R&D.
Codes	Agreed guidelines for delivering outcomes but stem from current practices and preference	Voluntary guidelines developed through consensus and observed to varying degrees by the States. Can be used as a defence of the legislation where enacted.
Best practice	May reflect existing standards but can also reflect practices actually being used by the industry's best operators	Best practice is an empirical statement of the methods being employed by an industry's best operators and will change through time according to community expectations, innovations coming out of R&D and affordability considerations.

The regulatory situation for livestock exports differs from the above because of the commonwealth government's jurisdiction over all export activity. Accordingly there are export control acts and orders that seek to give 'weight' to the Australian Standards for the Export of Livestock (version 1, July 2005). The legislation confers ownership of the standard upon the people who are applying it viz, the export operators, and the existence of standards can be invoked as a defence when

compliance issues are encountered (see guidelines for the drafting of standards page 25 Appendix C MAF Information Paper No. 36).

Animal welfare is progressed in Australia through a framework of complementary influences as illustrated in Figure 2. Some of the 'influences' are quite specific to protection of animal welfare, such as legislation and codes of practice, while others are simply relevant, such as education and training and international developments. The framework as illustrated was originally conceived by the Australian Animal Welfare Strategy (AAWS) and is considered a useful perspective.

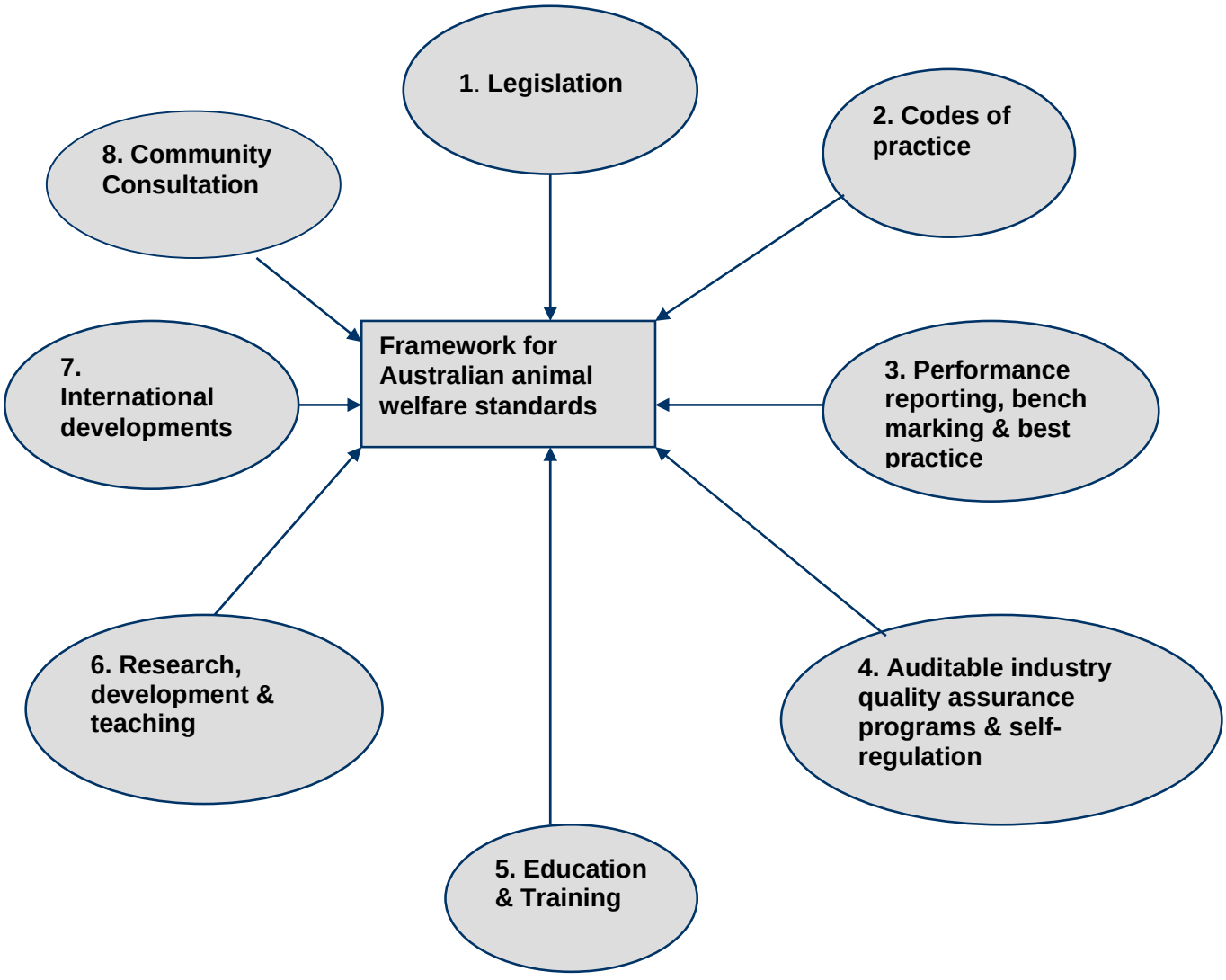

Figure 2: Elements of Australia's existing animal welfare system (Source: AAWS)

2.4 The dichotomy between economic and welfare implications

The practice of animal welfare varies considerable among nations depending on cultural and economic factors. To the extent it is accurate, this situation leads to an interesting dichotomy in the rationale for developing and applying animal welfare standards.

In some countries the rationale for invoking animal welfare standards is enhanced productivity and higher profits. This argument applies because welfare and profits are positively related where the prevailing standards are low and remain focused on basic considerations such as adequate feed, water, shelter and freedom from disease. These 'inputs' all contributed to improved productivity and profitability and as such might become management practices supported by economic principles. Where it is apparent that livestock producers are failing to care for their livestock to the detriment of productivity and meat quality, the blame can be laid at the feet of either inadequate knowledge about the link between productivity and welfare or lack of training and education.

The animal welfare standards demanded by first world countries increasingly include measures that have no obvious economic payoff beyond compliance (with regulations) that might be a condition of doing trade in the first place. Such standards are designed to deliver 'contemporary welfare outcomes' and could be perceived as a barrier to trade where they are expensive to implement. It is our contention that livestock export standards in the future will be designed according to changing community attitudes and local circumstances, whilst striving for maximum cost effectiveness. In this event, new standards that fail to meet the imperative of 'cost effectiveness' are likely to suffer poor uptake rates and compromise working relations between operators and regulators.

2.5 Determining the degree of compliance

While development and publication of performance standards is no guarantee that the intended outcome will be achieved in every case, we would expect a strong positive relationship between the existence of formal systems and existence of 'good' outcomes – particularly over the longer term. In other words, the existence and quality of standards should act as a useful predictor of outcomes. In practice, however, consistent and acceptable performance will, in fact, depend on the country (or industry) having in place a robust system with many complementary parts – as shown in Figure 2.

Whilst a study of this type can report the existence of systems that might be used to test the efficacy of standards, it cannot verify actual compliance by exporters with the standards applying in particular countries. Thus auditing and monitoring with associated penalties (for non-compliance) are measures that can be used to encourage compliance. However, proof of 'failure to comply' is not part and parcel of standards documentation and the results of audits and other forms of 'verification' are not necessarily made public.

3 Methodology

3.1 Sources of information

3.1.1 World wide web

Our search for evidence of country standards was based largely on the world-wide-web. This reflects both the importance of the web as a source and repository of information and the need to make standards publicly available as proof of existence and intent. However, it is possible that 'total

reliance on the web' has introduced some bias and possibly oversight in the search process due to the difficulties that arise when we go beyond English speaking countries.

3.1.2 Other public sources

Some information was not freely available on the word-wide-web but was acquired, purchased or borrowed by the investigators. Examples include the *AATA Manual for the Transportation of Live Animals* and Namibia's *Farm Assured Namibian Meat Manual*.

3.1.3 Direct approaches

Personal contact was made via e-mail or telephone to individuals known to the consultants and to others identified through Internet searches. A table showing the names and contact details of those persons who responded to our approaches is provided in Appendix 1.

3.1.4 Other sources of information

As a result of direct contact, a number of (unofficial) documents were provided to the investigators from personnel in South American countries. These documents were found to be interesting and illustrative of the thinking in these countries with respect to transportation and welfare of animals. However, they could not be considered in any way as standards or requirements.

3.2 Presentation of the data

The sheer volume of data associated with international livestock export standards poses a challenge for efficient and meaningful reporting. To achieve clarity we have used simple summary tables to report the existence of standards by country and species. Moreover, we have invoked a somewhat liberal definition of what constitutes a standard. This was done for two reasons. First, we are not convinced that a common standard should apply to all situations (due to the unnecessary cost this would inflict on particular journeys and the pre-eminence of achieving an acceptable outcome in any event) and secondly, a simple approach to presentation permits a clearer perspective of the international 'situation'. Thus section 4 uses summary tables for presenting standards according to the various transportation phases from the farm to final destination.

The more complex task of comparing standards in terms of their effectiveness is attempted in section 5 based upon evidence that a country's standards are well conceived and incorporate higher-level management tools. In practice, prescriptive demands that contribute to the welfare of the livestock are often derive from a common regulatory framework. The MAF (NZ) for example, are referred to in the US material suggesting that they assist with meeting requirements within the US animal welfare act. Electronic linkage of documents has facilitated this practice.

For each standard, we have made comparisons of several 'criteria' considered most appropriate. The comparison system has used Australia as the benchmark and for the case of 'rigor' used the scoring system shown in the right hand column of Table 2. Thus the rigor of each criteria is judged to be Lax = 1; Okay = 2; or Strict = 3 using the Australian standards as a benchmark.

Table 2: Basis for assessing the rigor of a country's livestock exporting standards

Criteria	Scope of the criteria	Classification of the criteria
Outcome focus	The standards encourage export operators to think in terms of defined outcomes rather than disconnected processes	Lax = 1 Okay = 2 Strict = 3
Risk management	The risk profile and interactions that surround the system have been mapped and tools put in place to minimise impacts	Lax = 1 Okay = 2 Strict = 3
Assignment of responsibilities	Key players such as export operator, vessel owner, assembly centre and stockmen assigned specific tasks and outcomes	Lax = 1 Okay = 2 Strict = 3
Detailed standards	Scientifically based standards in relation to health and welfare of the animals. Capacity to measure and apply standards will assist their application	Lax = 1 Okay = 2 Strict = 3
Training and key competencies	Evidence that the people managing the processes understand the community expectations and have relevant technical competencies and follow procedures, etc	Lax = 1 Okay = 2 Strict = 3
Remedial actions	Operating procedures include the corrective actions initiated by system failure and proof of effective responses	Lax = 1 Okay = 2 Strict = 3
Supporting legislation	The law will reflect government policy and give legal support to the standard that apply at the interface with actions and impacts	Lax = 1 Okay = 2 Strict = 3
Contingency planning	Closely connected to risk management but might refer specifically to non-technical issues such as customer relations	Lax = 1 Okay = 2 Strict = 3
R&D program	Ongoing R&D to enhance animal welfare and demonstrate the industry's commitment to continuous improvement in outcomes	Lax = 1 Okay = 2 Strict = 3
Licensing & accreditation	Part of QA program to demonstrate that export operators are technically competent	Lax = 1 Okay = 2 Strict = 3
Transparent reporting system	Open book reporting to prove a match between standards and outcomes and thereby enhance industry *bona fides*	Lax = 1 Okay = 2 Strict = 3
Audit program	Periodic checking of performance records to maintain performance standards across all participants and operators	Lax = 1 Okay = 2 Strict = 3

4 List of standards by country

The tables in this section report the results of our search for documented and published standards by country and species. In the table, a tick indicates that we positively identified standards, as defined, while a cross indicates that we found no evidence of a standard – despite a thorough search of web sites and other logical places. Occasionally a question mark has been used to indicate some doubt on our part regarding the existence of a standard. In this section, country names are stated in full or in common abbreviation eg, USA. However, the third row refers to the World Organisation for Animal Health, previously known as the Office Internationale des Epizooties (OIE). Inclusion of OIE alongside sovereign nations is considered important because of its strong technical credentials and neutrality. Whilst it might be tempting to argue that the OIE standards

should be offered as the international benchmark for animal welfare performance, their applicability to particular circumstances might be less than optimal. Indeed a principle advanced by IOE states "*that equivalent outcomes (performance criteria) rather than identical systems (design criteria) be the basis for comparison of animal welfare standards and guidelines".* The difficulty with this proposition is that outcomes are a matter for the record i.e. the quality of an outcome can only be revealed by objective measurement after the event. Moreover, an outcomes based approach is likely to invite a degree of performance variation related to the competence, experience and diligence of the operator. Obviously the presence / absence of these 'inputs' will vary in practice. We maintain, therefore, that the best *predictor* of outcome quality will be the relative quality of the standards (judged in terms of specificity and rigor) that will be applied to the upcoming activity. Our assessment of the quality of international livestock export standards, benchmarked against Australia's standards, is reported in section 5.

Finally, it is necessary to comment upon how we have treated 'source of information'. Where a standard was positively identified we have recorded the actual document name. But where the appropriate website failed to reveal a standard (resulting in a X) we have given details of the website itself.

4.1 Standard 1 – Sourcing of livestock and on-farm preparation

Country	Species			Source of information
	Cattle	Sheep	Goats	
Australia	√	√	√	Aust Standard for the Export of Livestock (version 1, July 2005, hard copy)
New Zealand	√	√	√	Standard for the Transport of Cattle by Sea from NZ, Code of Recommendations and Minimum Standards for the Sea Transport of Sheep from NZ.
OIE	√	√	√	Report of the 2nd Meeting of the Ad hoc Group on the Land Transport of Animals
Ireland	√	√	√	Disease of Animals (Carriage of Cattle by Sea) (Ireland) Order 1996 & EU Directives
USA	√	√	√	Code of Federal Regulations Title 9 Animals and Animal Products (Parts 1 to 199)
United Kingdom	√	√	√	The Welfare of Animals (Transport) Order 1997 & EU Directives
Canada	√	√	√	PART XII – Transportation of Animals
European Union	√	√	√	Regulation on the Protection of Animals during Transport (Council Regulation) EC No1/2005
Brazil	X	X	X	www.agricultura.gov.br
Argentina	X	X	X	www.senasa.gov.ar
Chile	X	X	X	www.sag.gob.cl

Country	Species			Source of information
	Cattle	Sheep	Goats	
Uruguay	√	√	X	Bienestar Animal En Especies Productivas: Recomendaciones De Buenas Prácticas Formuladas Por El Grupo Técnico Sobre Bienestar Animal Referidas As TRANSPORTE Y FAENA DE BOVINOS Y OVINOS, 2005
Mexico	X	X	X	www.sagarpa.gob.mx

4.2 Standard 2 – Land transport of livestock intended for export

Country	Species			Source of information
	Cattle	Sheep	Goats	
Australia	√	√	√	Aust Standard for the Export of Livestock (version 1, July 2005)
New Zealand	√	√	√	Code of Recommendations and Minimum Standards for the Welfare of Animals Transported within New Zealand
OIE	√	√	√	Report of the 2nd Meeting of the Ad hoc Group on the Land Transport of Animals
Ireland	√	√	√	Disease of Animals (Carriage of Cattle by Sea) (Ireland) Order 1996 & EU Directives
USA	√	√	√	Code of Federal Regulations Title 9 Animals and animal Products (Parts 1 to 199) & Cattle and Swine Trucking Guide for Exporters
United Kingdom	√	√	√	The Welfare of Animals (Transport) Order 1997 & EU Directives
Canada	√	√	√	Code of Practice for the Care and Handling of Farm Animals – Transportation (Canada)
European Union	√	√	√	Code of Conduct for the International Transport of Cattle, Sheep and Goat (Recommendation R (90) 1 & 5
Argentina	√	√	√	Manual De Procedimientos En Bienestar Animal, M. D. de la Sota. Servicio Nacional de Sanidad y Calidad Agroalimentaria, Buenos Aires, Argentina, 2004[2]
Brazil	√	√	√	AATA Manual for the transportation of live animals. 2nd ed. Surrey, England: TC Harris; 2000. 156 pp.[3]

[2] Aspects of this document could apply to animals intended for export but it was not developed for that purpose.
3 Aspects of this document could apply to animals intended for export but it was not developed for that purpose.

Country	Species			Source of information
	Cattle	Sheep	Goats	
Chile	√	X	X	Establece Sistema Ogligatorio de Clasificación de Ganado, Tipicicación y Nomenclatura de sus Carnes y Regula Funcionamiento de Mataderos, Frigoríficos y Establecimientos de la Industria de la Carne. 1992 Jul; Ley de Carnes Nº 19.162, Publicado en el Diario Oficial del 7 de septiembre de 1992, modificada por la Ley Nº 19.797, publicado en el Diario Oficial de 3 de Abril de 2002. Reglamento general de transporte de ganado bovino y de carnes. 1993 20; Decreto Supremo Nº 240, Publicado en el Diario Oficial del 26 de octubre de 1993, Modificado por Decreto Supremo Nº 484, publicado en el Diario Oficial de 5 de Abril de 1997.
Uruguay	√	√	√	Bienestar Animal En Especies Productivas: Recomendaciones De Buenas Prácticas Formuladas Por El Grupo Técnico Sobre Bienestar Animal Referidas As TRANSPORTE Y FAENA DE BOVINOS Y OVINOS, 2005
Mexico	√	√	√	Trato humanitario en la movilización de animales. Norma Oficial Mexicana NOM-051-ZOO-1995, Publicada en el diario oficial de la federación el 23 de marzo de 1998 Especificaciones y características zoosanitarias para el transporte de animales, sus productos y subproductos, productos químicos, farmacéuticos, biológicos y alimenticios para uso en animales o consumo por éstos.. NOM-024-ZOO-1995: 1995

4.3 Standard 3 – Management of livestock in registered premises

Country	Species			Source of information
	Cattle	Sheep	Goats	
Australia	√	√	√	Aust Standard for the Export of Livestock (version 1, July 2005)
New Zealand	√	√	√	Guide for the Pre-export Isolation f Live Animals for Export (MAFF)
OIE	√	√	√	Report of the 2nd Meeting of the Ad hoc Group on the Land Transport of Animals
Ireland	√	√	√	Disease of Animals (Carriage of Cattle by Sea) (Ireland) Order 1996 & EU Directives

Country	Species			Source of information
	Cattle	Sheep	Goats	
USA	√	√	√	Code of Federal Regulations Title 9 Animals and Animal Products (Parts 1 to 199)
United Kingdom	√	√	√	The Welfare of Animals (Staging Points) Order 1998 & Export of Animals (Protection) Order 1996 & EU Directives
Canada	√	√	√	Livestock Market and Livestock Assembling Station Regulation
European Union	√	√	√	Regulation on the Protection of Animals during Transport (Council Regulation) EC No1040/2003 in regards to Staging Points
Brazil	X	X	X	www.agricultura.gov.br
Argentina	√	√	√	http://www.senasa.gov.ar/sanidad/identific/identific3.php (for export to the EU)
Chile	√	√	√	http://www.trazabilidad.sag.gob.cl/Bovina/Menu/Componenetes_Sistema/Registros_Establecimientos/P_Registro_Establecimientos.htm
Uruguay	X	X	X	www.mgap.gub.uy
Mexico	√	√	√	Características zoosanitarias para la operación de establecimientos donde se concentren animales para ferias, exposiciones, subastas, tianguis y eventos similares. Norma Oficial Mexicana NOM-045-ZOO-1995

4.4 Standard 4 – Vessel preparation and loading

Country	Vessel Related Issues			Source of information
	Cattle	Sheep	Goats	
Australia	√	√	√	Aust Standard for the Export of Livestock (version 1, July 2005), and AMSA Part 43.
New Zealand	√	√	√	Standard for the Shipping Requirements for Sea Transport of Livestock.
OIE	√	√	√	Report of the 2nd Meeting of the Ad hoc Group on the Land Transport of Animals
Ireland	√	√	√	Disease of Animals (Carriage of Cattle by Sea) (Ireland) Order 1996 & EU Directives
USA	√	√	√	Code of Federal Regulations Title 9 Animals and Animal Products (Parts 1 to 199)
United Kingdom	√	√	√	The Welfare of Animals (Transport) Order 1997 & EU Directives
Canada	√	√	√	PART XII – Transportation of Animals

Country	Vessel Related Issues			Source of information
	Cattle	Sheep	Goats	
European Union	√	√	√	Regulation on the Protection of Animals during Transport (Council Regulation) EC No1/2005
Brazil	X	X	X	www.agricultura.gov.br
Argentina	X	X	X	www.senasa.gov.ar
Chile	√	X	X	Reglamento general de transporte de ganado bovino y de carnes. 1993 20; Decreto Supremo Nº 240, Publicado en el Diario Oficial del 26 de octubre de 1993, Modificado por Decreto Supremo Nº 484, publicado en el Diario Oficial de 5 de Abril de 1997. Note that although technically, transport by ship is covered in this document, it is intended to apply to a container or vehicle loaded on a vessel for a very short journey.
Uruguay	X	X	X	www.mgap.gub.uy
Mexico	X	X	X	www.sagarpa.gob.mx

4.5 Standard 5 – Onboard management of livestock

Country	Species			Source of information
	Cattle	Sheep	Goats	
Australia	√	√	√	Aust Standard for the Export of Livestock (version 1, July 2005)
New Zealand	√	√	√	Standard for the Transport of Cattle by Sea from NZ, Code of Recommendations and Minimum Standards for the Sea Transport of Sheep from NZ.
OIE	√	√	√	Report of the 2nd Meeting of the Ad hoc Group on the Land Transport of Animals
Ireland	√	√	√	Disease of Animals (Carriage of Cattle by Sea) (Ireland) Order 1996 & EU Directives
USA	√	√	√	Code of Federal Regulations Title 9 Animals and Animal Products (Parts 1 to 199)
United Kingdom	√	√	√	The Welfare of Animals (Transport) Order 1997 & EU Directives
Canada	√	√	√	PART XII – Transportation of Animals
European Union	√	√	√	Regulation on the Protection of Animals during Transport (Council Regulation) EC No1/2005
Brazil	X	X	X	www.agricultura.gov.br
Argentina	X	X	X	www.senasa.gov.ar

Country	Species			Source of information
	Cattle	Sheep	Goats	
Chile	√	X	X	Reglamento general de transporte de ganado bovino y de carnes. 1993 20; Decreto Supremo Nº 240, Publicado en el Diario Oficial del 26 de octubre de 1993, Modificado por Decreto Supremo Nº 484, publicado en el Diario Oficial de 5 de Abril de 1997.
Uruguay	X	X	X	www.mgap.gub.uy
Mexico	X	X	X	www.sagarpa.gob.mx

4.6 Standards 6 – Air transport of livestock

Country	Species			Source of information
	Cattle	Sheep	Goats	
Australia	√	√	√	Aust Standard for the Export of Livestock (version 1, July 2005)
New Zealand	√	√	√	IATA
OIE	X	X	X	
Ireland	√	√	√	IATA
USA	√	√	√	IATA
United Kingdom	√	√	√	IATA
Canada	√	√	√	IATA
European Union	√	√	√	IATA
Brazil	√	√	√	AATA, refers to IATA
Argentina	X	X	X	www.senasa.gov.ar
Chile	X	X	X	Reglamento general de transporte de ganado bovino y de carnes. 1993 20; Decreto Supremo Nº 240, Publicado en el Diario Oficial del 26 de octubre de 1993, Modificado por Decreto Supremo Nº 484, publicado en el Diario Oficial de 5 de Abril de 1997. Article 9 covers air transport in one sentence.
Uruguay	X	X	X	www.mgap.gub.uy
Mexico	X	X	X	www.sagarpa.gob.mx

General comments

- If standards are not readily accessible both to those who must abide by them (the exporters) and to other stakeholders (often, the importing country) then it is difficult to see how they can effectively achieve their purpose. This proposition supports our reliance on the web as the 'most likely' place to find a country's livestock export standards.

- In our searches for standards, we encountered evidence of absence of standards (eg, African countries and China) and absence of evidence of standards (eg, Central and South American countries) and we acknowledge the differences between these two situations.

- Our search for international standards relating to the transportation of livestock indicated that the motivating forces differ between countries and reflect each country's situation in terms of animal disease, animal productivity and concern for animal welfare. In less-developed countries, animal diseases limit the movement of animals and thus there is limited incentive for development of standards relating to transportation. Most African countries fall into this category. In other (still developing) countries or regions where animal diseases are controlled enough that large scale movement of animals can occur, awareness develops that setting standards for animal transportation results in increased productivity and marketability of product. Countries in the Middle East and China fall into this category but as yet demonstrate little concern for animal welfare. In developed countries animal productivity tends to be very much higher and development and refinement of animal transportation standards are largely driven by animal welfare considerations. This is illustrated by central and south American countries, where searches of the world-wide-web and approaches to personnel were most successful if couched in terms of animal welfare.

- In Australia, the motivating forces behind the development of animal transportation standards reflect a unique combination of factors:

  - Australia is a first-world country with an affluent society that has high expectations for animal welfare

  - Australia is the world's largest exporter of livestock[4] and such exports are an important contributor to the rural economy

  - The journeys undertaken by exported livestock are amongst the longest in the world, providing real challenges for maintenance of animal welfare

  - Australia has a highly favourable disease status, allowing access to markets in similarly developed, affluent societies that also have stringent demands regarding animal welfare standards.

China

China is both an importer and exporter of livestock. Awareness of animal welfare issues is developing in China but to date there is little legislation covering this topic and certainly there are no livestock export standards. In 2004, the Beijing Agriculture Bureau posted a draft of the 'Beijing Animal Hygiene Regulation' on its website for comment, but it was withdrawn four days later. The draft apparently contained a single chapter covering topics including animal breeding, transportation,

[4] FAO statistics reveal that in 2004 Australia exported more than 408,000 head of livestock – almost double the next biggest exporter. However, sheep numbers dominate Australia's trade. Both France and Mexico, for example, export more than double the number of live cattle that Australia does. Because Australia ranks only third in terms of live cattle exports, it also ranks third overall in terms of the value of livestock exported. The size of the global livestock export trade is huge with the cattle, sheep and goat movements in 2004 totalling more than 24 million head. Moreover, 52 countries exported more than 10,000 head. Source: http://faostats.fao.org/

and slaughter. In August 2005, the Standing Committee of the 10th National People's Congress presented for deliberation a draft law on animal husbandry that included articles on animal welfare. This draft law indicates that stock farmers should (amongst other things) take care of animals when they are transported. In November 2005 further laws on stock farming were drafted, but to date, have not been enacted. Our contact in China commented it is unlikely that there will be a single law or piece of legislation covering animal welfare. He thought that animal welfare will most likely be covered under several scattered pieces of existing regulations. See Appendix 7.1 for detailed references.

African countries

Africa is a vast continent of many countries with varying terrain, climate, animal production systems, economies and cultures. The general comments that follow will not apply equally to all African countries but all should apply to a varying degree to most of the countries. A combination of the factors listed below impact the access of African countries to livestock export markets:

- drought and associated famine
- wars or civil unrest
- unstable or absent governments
- animal disease status.

The single biggest limiting factor to livestock export market access is foot-and-mouth disease (FMD). In Africa, no country is recognised as FMD-free, and only Namibia and South Africa are recognised by the OIE as having an FMD-free zone where vaccination is not practised. The major market for livestock from FMD-infected African countries or zones traditionally has been the Middle East. However, after Rift Valley fever (considered endemic in much of Africa) spread to Saudi Arabia in 2000, Saudi Arabia (the largest importer of live sheep) banned imports of sheep, goats and camels from Sudan, Kenya, Somalia, Eritrea, Djibouti and Yemen. The ban on sheep from Sudan was lifted in 2002 and in September 2004, Saudi Arabia was reported to be considering lifting the ban from Djibouti, Somalia and (possibly) Somaliland.

For much of Africa, including rural South Africa, the links between animal welfare, animal health, and productivity are not well understood. The rural population tends to be poor and relatively uneducated, and animal welfare issues are either not recognised or do not receive high priority and thus there is limited impetus for development of animal transportation standards of any kind. In addition, the restriction of export markets (by disease status) to limited Middle Eastern destinations, which themselves do not yet have high expectations of animal welfare standards, means that the market-based demands imposed upon Australian exporters do not apply. Investigations into the development and facilitation of the livestock export trade from developing African nations focus on the need to improve animal disease status, provide better veterinary services and facilities, and develop appropriate legislation and certification capacities. In some (but not all) reports, animal welfare issues are noted but it is unlikely the development of livestock export standards will receive much attention until animal disease status is removed as a barrier to accessing livestock export markets.

Central and South American countries

The government websites for each of Argentina, Brazil, Chile, Mexico, Paraguay and Uruguay were examined. These sites and the Internet were searched using keywords that included livestock export, animal welfare, animal transport, standards (in English, and in Spanish and Portuguese). Direct approaches were made via email to government or transport industry officials in these countries and responses were obtained from all countries except Paraguay.

We recognise that for the most part, our assessment of the absence of livestock export standards for the other countries is based on the absence of evidence. Therefore, in addition to the direct contacts listed above, we contracted a professional translator to review the websites and confirm the materials obtained. For no South American country did we find material developed specifically for the purposes of exporting livestock.

5 Comparison of standards

5.1 Basis for comparing standards

In this chapter we compare standards between countries that export livestock. The comparison is made in terms of absolute merit between Australia and each other country for each standard. Beyond this the comparison relies on the most meaningful set of criteria applicable to that standard. Some criteria were found to apply to all the standards eg, 'well defined responsibilities' whereas other criteria were specific to a particular standard eg, 'rejection criteria' in the registered premises.

Comparison of the selected criteria could only be performed in the most general terms due to large variations between countries. Examples of the sorts of variation we found between countries included the following:

- The standard's documentation for some countries is largely self-contained (eg, Australia and New Zealand) but in other countries it is contained in many documents that have to be cross-referenced. In some cases, the standards are contained in the 'supporting' legislation.
- The instructions implicit in standards vary enormously between countries even where the intention is to achieve a similar outcome – often linked to the welfare of the animals.

For each criterion, the assessment is 'answered' in three ways as follows:

1. Criteria exists = √ or Criteria does not exist = X
2. The criteria for the country standard is either Specific or General or Not Evident
3. The criteria for the country standard is either Lax = 1; or Okay = 2; or Strict = 3. It will be appreciated that the score assigned to a given country is a judgement-call on our part, based on thorough scrutiny of the documentation.

The names of countries included in the comparison have been abbreviated using the ISO 3-letter coding system as shown below. Also included in the tables are the European Union (EU) and the World Organisation for Animal Health (OIE).

Argentina	ARG
Australia	AUS
Brazil	BRA
Canada	CAN
Chile	CHL
China	CHN
Ireland	IRL
Mexico	MEX
New Zealand	NZL
United Kingdom	GBR
Uruguay	URY

5.2 General comparison of differences between standards

Basis of comparison	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Outcome focus	√ Specific 3	√ Specific 3	√ Specific 3	√ General 2	X	√ General 2	X	X	X	X	X	X	X
Risk management	√ Specific 3	√ General 2	X	X	X	X	X	X	X	X	X	X	X
Assignment of responsibilities	√ Specific 3	√ Specific 3	√ Specific 3	√ General 2	√ General 2	√ General 2	√ General 2	√ General 2	Not evident	Not evident	Not evident	√ General 1	Not evident
Detailed standards	√ Specific 3	√ Specific 3	√ General 3	√ Specific 2	√ General 2	√ Specific 2	√ Specific 2	√ Specific 2	Not evident	X	X	X	X
Training and key competencies	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 2	√ General 2	√ Specific 2	√ Specific 2	√ General 2	Not evident	Not evident	Not evident	√ General 1	Not evident
Remedial actions	√ Specific 3	√ Specific 3	√ Specific 3	X	X	X	X	X	X	X	X	X	X
Supporting legislation	√ Specific 3	√ Specific 3	X	√ Specific 3	√ General 2	√ Specific 3	√ General 2	√ Specific 2	√ General	√ General	√ General	√ General	√ General

General comparison of differences between standards (continued)

Basis of comparison	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Contingency planning	√ Specific 3	√ Specific 2	√ Specific 3	X	X	X	X	X	X	X	X	X	X
R&D program	Evident	Not evident	Not evident	Not evident	Not evident	Not evident	Not evident	Not evident	X	X	X	X	X
Licensing & accreditation	√ Specific 3	√ Specific 3	X	√ Specific 3	X	√ General 2	√ General 2	Not evident	Not evident	Not evident	Not evident	√ General 1	Not evident
Transparent reporting system	√ Specific 3	√ Specific 3	X	√ General 2	Not evident	Not evident	√ General 2	Not evident	Not evident	X	X	X	X
Audit program	√ Specific 2	Not evident	Not evident	Not evident	Not evident	Not evident	Not evident	Not evident	X	X	X	X	X

5.3 Standard 1 – Comparison of 'sourcing and on farm preparation'

Basis of comparison	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Identification and trace-back	√ Specific 3	√ Specific 3	Not evident	√ Specific 3	X	√ Specific 3	√ Specific 2	√ General 2	Not evident	√ Specific 2	√ Specific 3	Developing	√ General 1

Basis of comparison	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Selection criteria (fitness to travel – health and disease)	√ Specific 3	√ Specific 3	√ General 3	√ Specific 2	√ Specific 2	√ Specific 3	√ General 2	√ General 2	X	X	X	√ General 2	X
Selection criteria (fitness to travel – body condition)	√ Specific 3	√ Specific 2	√ General 2	X	X	√ Specific 3	X	√ General 2	X	X	X	√ General 1	X
Selection criteria (fitness to travel – age, wool length, horn length pregnancy, breed type etc)	√ Specific 3	√ General 2	√ General 3	√ Specific 2	X	√ Specific 3	X	√ General 1	X	X	X	Not evident	X
On farm preparation	√ General 2	√ Specific 2	√ General 3	X	X	Not evident	X	X	Not evident	Not evident	Not evident	Not evident	Not evident

5.4 Standard 2 – Comparison of 'land transport'

Prescription	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Travel plan requirements	√ General 2	Specific 2	√ Specific 3	√ Specific 3	X	√ Specific 3	X	√ Specific 2	Brazil adopts the AATA	X	X	Not evident	X

Prescription	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Vehicle design and construction requirements	√ General 2	√ Specific 3	√ General 3	√ Specific 2	√ Specific 3	√ Specific 3	√ Specific 3	√ General 2		√ General 1	√ General 2	√ General 2	√ General 1
Loading and unloading facility design and construction	√ General 2	√ Specific 3	√ Specific 3	√ Specific 2	√ Specific 3	√ Specific 3	√ Specific 3	√ General 2		√ General 1	√ General 2	√ General 2	√ General 1
Loading density restrictions	√ Specific 2	√ Specific 3	√ General 3	√ Specific 2	√ Specific 3	√ Specific 3	√ Specific 3	√ General 2		Not evident	Not evident	√ General 1	Not evident
Maximum curfew trucking and water deprivation times	√ Specific 2	√ Specific 3	√ General 3	√ Specific 3	√ Specific 2	√ Specific 3	√ Specific 3	√ Specific 2		Not evident	√ General 1	√ General 1	Not evident
Fitness to travel	√ Specific 2	Specific 2	√ General 3	Not evident	Not evident	√ General 2	√ Specific 3	√ General 2		Not evident	Not evident	√ General 2	√ General 1

5.5 Standard 3 – Comparison of 'management in registered premises'

Prescription	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Premise registration and licensing requirements	√ Specific 3	√ Specific 3	X	Not evident	√ Specific 2	√ Specific 3	√ Specific 2	Not evident	As above	√ Specific 2	√ Specific 2	Not evident	Not evident

Prescription	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Premise design and construction requirements	√ Specific 3	√ Specific 3	X	Not evident	√ General 1	Not evident	√ General 2	Not evident		Not evident	Not evident	Not evident	Not evident
Premise and livestock management	√ Specific 2	√ Specific 3	X	Not evident	√ General 1	√ Specific 3	√ Specific 2	√ General 2		Not evident	Not evident	Not evident	Not evident
Requirement for pre-embarkation inspection	√ Specific 2	√ Specific 2	X	Not evident	X	Not evident	X	Not evident		√ General 2	√ General 2	Not evident	Not evident
Requirement for isolation and quarantine	√ Specific 3	√ Specific 3	X	Not evident	√ General 1	√ General 2	√ General 2	Not evident		√ General 2	√ General 2	Not evident	Not evident
Requirement for documentation and/or reporting	√ Specific 2	√ Specific 3	X	Not evident	√ General 1	Not evident	√ Specific 2	Not evident		√ General 1	√ General 2	Not evident	Not evident

5.6 Standard 4 – Comparison of 'vessel preparation and loading'

	Country												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Vessel licensing, accreditation and/or approval requirements	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 2	√ Specific 2	X	√ General 2	As above	X	X	X	X

	Country												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Vessel design and construction	√ Specific 3	√ Specific 3	√ General 2	√ Specific 3	X	Not evident	X	√ General 2		X	X	X	X
Load plan requirements	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	X	Not evident	X	Not evident		X	X	X	X
Space allowance	√ Specific 3	√ Specific 3	√ General 3	√ Specific 3	√ General 3	√ Specific 3	√ General 2	√ Specific 2		X	X	X	X
Ration specifications and provisioning.	√ Specific 3	√ Specific 3	√ General 2	√ Specific 3	√ Specific 2	√ General 2	√ General 2	√ Specific 2		X	X	X	X

5.7 Standard 5 – Comparison of 'onboard management'

Prescription	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Livestock supervision and husbandry requirements	√ Specific 3	√ Specific 3	√ General 3	√ Specific 3	√ General 2	√ General 2	√ General 2	√ General 2	As above	X	X	X	X
Feeding and watering requirements	√ Specific 3	√ Specific 3	√ General 3	√ Specific 2	√ General 2	√ General 2	√ General 2	√ General 2		X	X	X	X

Prescription	Each country relative to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Bedding management	√ Specific 3	√ General 2	√ General 3	X	X	√ General 2	X	√ General 2		X	X	X	X
Segregation and penning requirements	√ Specific 3	√ General 2	√ General 3	X	X	Not evident	Not evident	Not evident		X	X	X	X
Reporting requirements	√ Specific 3	√ Specific 2	X	√ Specific 2	X	Not evident	Not evident	Not evident		X	X	X	X
Incident notification	√ Specific 3	√ Specific 3	X	√ Specific 2	X	Not evident	Not evident	Not evident		X	X	X	X

5.8 Standard 6 – Comparison of 'air transport of livestock'

Prescription	Each country compared to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
General		Refers to IATA	Refers to IATA	Refers to IATA	Refers to IATA	Refers to IATA	Refers to IATA	Refers to IATA	Refers to IATA	Not evident	Not evident	Not evident	Not evident
Selection criteria (fitness to travel – health and disease and other)	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	Not evident	Not evident	X	X	X
Space allowance requirements	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	Not evident	Not evident	X	X	X

Prescription	Each country compared to Australia												
	AUS	NZL	OIE	IRL	USA	GBR	CAN	EU	BRA	ARG	CHL	URY	MEX
Handling instructions	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	Not evident	Not evident	X	X	X
Container requirements	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	√ Specific 3	Not evident	Not evident	X	X	X

5.9 Discussion

5.9.1 Outcomes designed to achieve

The outcomes expected from livestock export standards depend on the perspective of the particular stakeholder as follows:

Social: From the perspective of the broader community, standards can be viewed as a tangible and formal framework for advancing the cause of animal welfare. Thus lobby groups will deem the standards as accurate and useful to the extent they result in animal welfare outcomes that accord with their expectations. In a social democracy, lobby groups such as RSPCA will be given the opportunity to contribute to the community viewpoint but in arriving at a final position, our political process should balance the interests of all parties. In practice, most credence might be given to those parties who have made a large material investment in the industry and generate secondary benefits such as employment.

Regulators: For the most part, regulators will judge the quality of standards in terms of capacity to achieve their stated goals. As discussed in section 2, complementary legislation, compliance measures and quality assurance programs will support effective standards.

Industry: In common with other stakeholders, operators will want the standards to assist with achieving acceptable animal welfare outcomes. But operators will also want the standards to be efficient because they are well written and cost effective to apply.

5.9.2 Supporting rationale

As discussed in section 2.3, the rationale for standards lies firstly with delivery of acceptable animal welfare outcomes. To the extent they achieve this, standards act as a defence for the trade when it comes under fire from minority interests.

5.9.3 Commercial Implications

This subject was extensively discussed in section 2.4.

5.9.4 Animal welfare implications

As discussed in section 2.3, the animal welfare implications of standards are demonstratively positive.

5.9.5 Verification of compliance

This subject was discussed in section 2.5 but additional comment is justified. One of the most difficult components of regulation is the ability to identify instances where operators fail to comply with the prescribed standards. At a prescriptive level, the only way to achieve this is by monitoring, either continuously or by random audits. Monitoring and auditing, however, are resource hungry activities and difficult to justify in terms of cost effectiveness. It is better, therefore, that the prescribed standards have strong links to outcomes so that failure to comply will be reflected by overall performance. Our own experience suggests it will be possible on occasions to achieve satisfactory outcomes despite non-compliance to one or more aspect of a standard. But if the standards accurately identify and reflect risk factors, outcomes will eventually be compromised if short cuts are routinely taken.

At critical points along the export chain, it is possible to use quality assurance and statutory declarations to achieve a high level of compliance. The documentation required by most quality

assurance programs allows these declarations to be verified by subsequent investigation. This system marks a sophisticated regulatory framework and can be implemented progressively according to the maturity of an export industry. The Australian regulatory framework already incorporates some 'declaration based on QA' but the approach is still in the early days of implementation. We expect that mandatory declarations based on evidence of sophisticated quality assurance schemes will become more widespread as the framework continues to evolve.

5.10 Inconsistencies and knowledge gaps

Differences in technical knowledge and the political pressure exerted on animal welfare throughout the world means, inevitably, that there will be differences in the standards that are applied to operations. Many of these inconsistencies will be immaterial and not worthy of mention. Below we make observations regarding areas where inconsistencies will be commercially significant and worthy of further investigation:

Selection of suitable livestock for transportation: The Australian standard applicable to livestock selection and preparation is considered as good as if not superior to any other in the world. This situation implies that other countries might benefit by looking at the relative strengths of the Australian standard.

Preparation of livestock prior to transportation: 'Selection of livestock' has been widely addressed (particularly within the Australian Standards) but there seems to have been far less direction when it comes to 'preparation of livestock'. The main reason for this is that R&D to establish repeatable linkages (between preparation procedures and outcomes) is both difficult and costly. Whilst 'preparation' might be one of the last areas to be addressed by R&D and appear in a standard, we believe it will eventually deliver considerable returns to the industry.

Provision of drinking water during land transportation: The provision of drinking water in trucks has been advanced in Europe as a desirable innovation. We have some reservation about this proposal. Depending on the truck flooring system, additional urination would make the truck floor slippery and dangerous. It would also result in additional fouling of hides and spread of bacteria such as salmonellosis. Further, provision of water would add substantially to the costs of transportation and could be construed as a measure that adds costs without offering any offsetting productivity gain.

Trucking, curfew and water deprivation times: We have noticed that 'trucking times' have become a controversial topic, particularly within the European Union. There has also been considerable debate within the US in regards to the '48-hour ruling'. Moreover, there is considerable variation between countries when it comes to maximum trucking times (eg, 14-48 hours). This situation might not, however, result in material differences in outcomes bearing in mind a theme recurring throughout this investigation viz, "*that equivalent outcomes (performance criteria) rather than identical systems (design criteria) be the basis for comparison of animal welfare standards and guidelines" (see section 4).*

Spacing density: Space allowance is surprisingly consistent between countries. Direct comparisons, however, should only be made after considering all contributing factors such as livestock type, length of voyage and environmental conditions. Most countries demonstrated a number of different prescribed stocking densities depending on the factors mentioned above.

Heat stress: The record reveals that Australia has a better understanding of heat stress than most other countries. Our studies have indicated that in many instances, countries state acceptable temperature ranges without any reference to relative humidity or the wet bulb

temperature. This demonstrates a lack of understanding when it comes to the factors affecting heat stress and related losses. The Australian heat risk assessment model is clearly the most developed when it comes to considering heat impact and stress.

Risk Management: Our comparisons revealed risk management as a positive feature of the Australian standards. The adoption of a 'heat stress risk assessment model' is a working example but steps are underway to apply the same methodology to other areas of concern such as the salmonellae / persistent inanition syndrome. Application of 'risk-based management' requires a full understanding of the factors involved and a full determination of the "causal web". It also requires an understanding of the probability of unlikely events occurring (particularly with regards to the environment). It is likely that risk management tools will be further developed in the years ahead and will become integral to particular standards.

Vessel specific conditions: A notable feature of the New Zealand standards is the existence of vessel specific conditions that acknowledge that no two vessels are the same. In reality, every vessel has its peculiarities and often these are material and not properly addressed by blanket rulings within the standards.

5.11 Methods used to develop standards

The livestock export standards existing in Australia today have evolved through a dynamic process that has included responses by the industry and government agencies to community expectations, unacceptable events, findings of R&D and political pressure. Beyond the forces that initiate change, it is possible to recognise a sequence of steps that foster documentation of standards as outlined below.

Determine agreed outcomes: A traditional measure of animal welfare is the mortality rate for a given phase of transportation. Whilst mortality rate remains an important indicator there is now more emphasis on the freedoms that might be expressed by an individual animal. Once outcomes are agreed, it becomes possible to develop standards that will prove effective if consciously applied. Apart from standards, the advantage of an outcomes-approach is that it encourages the operator to exercise his or her expertise and discretion to achieve an acceptable result.

Identify responsibilities: Overall responsibility for outcomes rests with the exporter (commonly referred to as the operator). In practice, the operator will vest responsibilities at various stages with third party agents. Thus stock agents are commonly given the responsibility of selecting suitable livestock on the operator's behalf. We believe that vesting of responsibility for the quality of outcomes with operators and their agents is a critical component of a robust management system.

AQIS Requirements: Operators have to be licensed by AQIS. Granting of a license is based on experience, past performance, credibility and a 'fit and proper' person' check. Operators must submit an Operational Manual outlining their business details and how they meet the Australian Standards for exporting livestock. AQIS ensures that exporters who are accountable for the outcomes of consignments submit a 'notice of intension' to export and if given the go ahead, they then submit a detailed 'consignment risk management plan' for the particular consignment. AQIS then releases the 'approved export program' for that consignment and can add special conditions related to sourcing and preparation of animals for that voyage. An on-board veterinarian will be required for journeys longer than 10 days. In the case of an audit, AQIS may look for written instructions from operators to agents regarding the source and transport of stock. Livestock producers are required to sign a 'national vendor declaration' to supply animals to specification.

This will include declaration of pregnancy status based on detailed ultra sound foetal measurements.

Competency, training and accreditation: These inputs are complementary ingredients of a robust system designed to achieve consistent and acceptable outcomes and can be specified in the legislation. Proof of compliance is likely to rely upon either quality assurance declarations or ongoing audit of outcomes with the audits positioned at critical control points.

Application of best practice: Identification and application of best practice is a highly evolved form of systems management designed to achieving acceptable outcomes. Ultimately, application of best practice is reliant on empirical performance assisted by consultation among operators and cross-reference to R&D findings.

Identify and understand risks: Livestock exporting confronts many risks depending on the circumstances impinging on a particular voyage. In practice, the success of a particular voyage will depend on the operator's understanding and management of risk. Conceptually it is possible to join together the individual risks into a large causal web that that has to be understood and actively managed to prevent unacceptable events. Thus management of risk requires a sound knowledge of the web that links causes and effects. Advanced risk management will identify and describe situations where the required outcomes are not met despite adherence to standards.

Continuous Improvement: A culture of continuous learning, innovation and improvement is a highly evolved response to rising community expectations regarding animal welfare. The process will be assisted by application of an accurate and transparent reporting system and ongoing research and development

6 Conclusions and recommendations

6.1 Conclusions

Standards are an efficient and effective means of removing the market failure that would result from any disconnect between the animal welfare outcomes supplied by operators and those demanded by the community at large. Therefore it will be possible to assess, in advance, the capacity of a country or industry to deliver 'good' animal welfare outcomes in terms of the existence and quality of its livestock export standards. Beyond these simple propositions, it must be expected that there will be considerable variation in the 'existence and quality' of standards from country to country because of large technical, economic, cultural and environmental differences across the globe. Moreover, the quality of actual outcomes, stemming from a given set of standards, will vary depending on degree of compliance as brought about by the efficiency and dedication of operators and the use of either QA-based declarations or punitive measures such as auditing and imposition of penalties.

In this study we have attempted to compare and contrast the livestock export standards applying in all countries that participate significantly in the trade. In the first instance, this was done for the purpose of benchmarking the livestock export standards currently applying in Australia. The benchmarking process revealed that Australia has world-best livestock export standards in terms of coverage (of species and phases of transportation) and capacity to deliver acceptable outcomes (measured against animal welfare indicators).

The benchmarking study identified a large range in the quality of livestock export standards. For some export nations we could find no evidence of standards. At the other end of the range, represented by countries such as Australia, we found proof-positive of detail and rigorous

standards. Our assessment and rating of the standards can be validated by using the website addresses listed in the tables and appendices of the report. These details, combined with the discussions throughout the report (particularly in regard to key aspects of an effective regulatory framework) may serve as a platform for other countries to develop and enhance their own standards and assist in efforts to harmonise standards globally. We believe the comparison process serves to highlight the role of standards in a complex industry where high-level and ongoing cooperation is required between operators, independent auditors and government officers.

Our major conclusion is that there are no formal systems in place in other countries that would add significantly to the effectiveness of the Australian livestock export standards and from this point of view our standards should be considered 'high quality' and not requiring immediate or drastic revision. Proof of this conclusion rests upon several observations:

- Australia has publicly documented and free-standing standards for each of the six phases of livestock exporting by transportation
- In 2006 the Australian livestock export standards have already undergone several revisions in response to advances in knowledge and understanding of animal welfare and changes in community expectations
- The standards themselves are developed by government officers with a detailed knowledge of the industry, supplemented by consultations with operators and independent experts
- The absence of any features within the standards of other countries that would significantly add to the quality of the Australian standards.

6.2 Recommendations

It was never the intention of this study to arrive at recommendations regarding the future direction of livestock export standards. But due to the scope and depth of this study we feel inclined to make several suggestions that should prove useful to both Australia and the collective of all other countries involved in livestock exporting. The following points are made with a view to making the international livestock exporting industry more sustainable and socially acceptable.

Australia should:

- Continue to view the current standards as 'work in progress' that will be revised periodically to reflect changing community values, the findings of relevant R&D, commercial imperatives and animal welfare needs generally.
- Continue to encourage joint-ownership of the standards by operators, regulators and community representatives. This approach will mean rapid correction of any faults that become apparent and result in a sharing of responsibility for outcomes.
- Endeavour to maintain a balance between prescriptive standards (that place the emphasis on instructing operators in what they must do to comply) and outcomes-based standards (that allow operators considerable discretion in developing and applying their own systems and methods, provided they achieve acceptable outcomes in so-doing).

- Continue to assist customer nations to improve their understanding and delivery of animal health and welfare. In this regard, Australia is well positioned to take the lead in bringing about greater harmonisation of world livestock export standards. The first step might be representation at international forums where we would present the arguments for greater harmonisation and support this with appropriate technical examples.

- Continue to monitor the development of standards in other countries, particularly for any significant features that would enhance our standards as they currently stand.

Other countries that export livestock should:

- Specify the role of animal welfare in gaining entry to14 export markets and formulate livestock export standards seen to be appropriate to prevailing circumstances

- Publish their standards in a form and place that maximises their accessibility and ease of use by operators and other stakeholders

- Immediately review their standards against those applying in other countries and against local attitudes toward animal welfare

- Adopt a policy of periodically reviewing standards for the purpose of maintaining relevance and effectiveness.

7 Appendices

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