

## Existing Regulatory and Industry Requirements in the Meat Industry

### 1. Introduction

SD 3 described the controls that prevent, reduce or eliminate hazards in meat. SD 4 describes the regulatory and non-regulatory (industry) measures that include requirements to control hazards at primary production (on-farm, transport and at the saleyards) and at primary processing (slaughter and dressing). Further processing and supporting measures (traceability and training) are also included. Information in this document forms the basis for the main report and therefore there will be some repetition.

### 2. On-farm

#### 2.1 Regulatory

##### *2.1.1 Australia New Zealand Food Standards Code*

There are no requirements in the Code that include the control measures on-farm for production of meat animals but there are requirements that apply to dairy cows through the measures to ensure safe dairy products under Standard 4.2.4. Under Standard 4.2.4 a dairy primary production business must have a food safety program which includes control measures that ensures that milk for human consumption is only sourced from healthy cows.

The current Production and Processing Standard for Meat in Chapter 4 of the Code (Standard 4.2.3) includes requirements for production of only ready-to-eat meat.

The Food Standards Code includes standards for contaminants and natural toxicants, and for maximum residue limits (Section 5.1.1 below).

##### *2.1.2 State and Territory*

###### 2.1.2.1 Food Acts

The Food Acts in the States and Territories contain offences for the production of unsafe and unsuitable food, require compliance with the Code and contain provisions to improve safety and manage non-compliance. However, generally speaking, these Acts are not designed to manage hazards that potentially occur in live animals. Although primary production businesses are not exempt from the general provisions to produce safe food ('food' includes live animals intended for food), primary production is exempt from certain of the provisions for example, improvement notices, registration and approval of premises and auditing requirements. Also, for primary production, powers of officers are limited to reactive situations i.e. where an offence is likely to have occurred or enforcing emergency orders<sup>1</sup>.

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<sup>1</sup> The provisions in the individual States and Territories Acts and regulations differ and this is a general overview from the Model Food Provisions on which the State legislation is based. There are also differences in the States as to which Ministers and their departments have jurisdiction over the various sectors of the meat industry.

### 2.1.2.2 Animal health legislation

Table 1 lists State and Territory legislation that impacts on the production of meat animals. All States and Territories have Acts and regulations to control diseased stock including notification of diseases, quarantine and restrictions on moving diseased stock. Requirements also controlling feed for stock. The aim of the legislation is maintenance and improvement of animals' health and address matters that affect human health.

### 2.1.2.3 Animal welfare legislation

The safety and suitability of the meat is affected by injuries to animals and the effects of stress. Welfare legislation aims to prevent cruelty to animals which can manifest itself in a variety of ways but includes preventing injury, suffering and excessive stress.

States and Territories have legislation that enables welfare standards to be either adopted by reference or included in regulations. This legislation is included in Table 1. The legislation includes offences for inflicting cruelty to animals and in defence (generally) compliance with codes of practice for the welfare of animals can be cited.

Model Codes of Practice for the welfare of animals have been developed by government in consultation with industry and endorsed by Primary Industries Ministerial Council (or predecessor). There are codes for all the major species and include welfare requirements on-farm whatever the form of husbandry.

The Department of Agriculture, Fisheries and Forestry has developed the Australian Animal Welfare Strategy to provide the national and international communities with an appreciation of animals' welfare requirements in Australia and to outline future directions for improvements in animal welfare. A national implementation plan has been developed to implement the strategy which includes the development of national standards for inclusion in State and Territory legislation and guidelines to support the standards. These will be based on the existing Codes of Practice. The development process for the new standards involves representatives from livestock industry sectors, animal welfare and research organisations, relevant State and Territory government agencies, the Australian Government Department of Agriculture, Fisheries and Forestry and other stakeholders.

**Table 1 State and Territory legislation to manage microbiological hazards on-farm**

<b>State or Territory</b>	<b>Relevant Acts (regulations made under the Acts contain more specific requirements)</b>
New South Wales	Stock Foods Act 1940 Stock Diseases Act 1923 Exotic Diseases of Animals Act 1991 Prevention of Cruelty to Animals Act 1979
Victoria	Livestock Disease Control Act 1994 Prevention of Cruelty to Animals Act 1986
Queensland	Stock Act 1915 Exotic Diseases in Animals Act 1981 Animal Care and Protection Act 2001 Agricultural Standards Act 1994
South Australia	Livestock Act 1997 Prevention of Cruelty to Animals Act 1985
Tasmania	Animal Health Act 1995 Animal Welfare Act 1993

State or Territory	Relevant Acts (regulations made under the Acts contain more specific requirements)
Western Australia	Stock Diseases (Regulations) Act 1968 Exotic Diseases of Animals Act 1993 Biosecurity and Agricultural Management Act 2007 Stock Identification and Movement Act 1970 Animal Welfare Act 2002 Veterinary Preparations and Animal Feeding Stuffs Act 1976
ACT	Stock Act 2005 Animal Diseases Act 2005 Animal Welfare Act 1992
NT	Stock Diseases Act 2004 <sup>2</sup> Stock Routes and Travelling Stock Act 2002 Animal Welfare Act 2004

### 2.1.2.3 National Standard for Animal Feed

A National Standard for Animal Feed is currently under preparation by the Department of Agriculture, Fisheries and Forestry in consultation with an industry/government working group. The National Standard aims to provide consistency across Australia by including nationally acceptable requirements for animal feed manufacture, labelling, ingredients, production, processing, distribution and on-farm production of feed. It is based on the Codex Code of Practice on Good Animal Feeding<sup>3</sup>.

The Standard applies to the production and use of all materials destined for animal feed and feed ingredients at all levels whether produced commercially or on farm. It also includes grazing or free-range feeding, forage crop production and aquaculture. The Standard allows for the use of existing quality assurance or similar systems in achieving its requirements. Environmental contaminants are considered where the level of such substances in the feed and feed ingredients could present a risk to consumers' health (from the consumption of foods of animal origin) or to trade in animal products and animal feed. It does not deal with the issue of genetically modified feeds, feed ingredients or animal health, other than those that have implications for food safety. Schedules for Labelling and Restricted Materials are included in the Standard.

The Standard would be a set of recommendations applying to domestically produced and imported feed which could be included as a requirement under industry QA programs. It would only be mandatory if adopted or included in legislation.

### *2.1.3 Import legislation*

The importation of live animals into Australia is regulated by the Department of Agriculture, Fisheries and Forestry under the *Quarantine Act 1908* and subordinate legislation and by the Department of Environment, Water and Heritage and the Arts under the *Environment Protection and Biodiversity Conservation Act 1999* and subordinate legislation<sup>4</sup>. The Quarantine Act is implemented by the Australian Quarantine and Inspection Service (AQIS). AQIS assesses applications for live animal imports and may attach conditions to any permits issued. Imported animals and compliance with import permits are checked and animals may

<sup>2</sup> The Livestock Act 2008 was assented to in December 2008 and has repealed stock and stock routes legislation.

<sup>3</sup> CAC/RCP 54-2004

<sup>4</sup> Information from Animal Health in Australia DAFF 2008 – to be checked.

be quarantined. AQIS formulates standards for quarantine stations and monitors these stations.

Biosecurity Australia is responsible for developing and reviewing Australia's biosecurity policies so that animals can be imported safely and with minimal restriction on trade. Biosecurity Australia develops import requirements, based on scientific evidence, which are taken into account by AQIS in assessing applications for permits to import.

#### *2.1.4 Export legislation*

Live animal exports are controlled by the *Export Control Act 1982* and more specifically, the *Export Control (Animals) Order 2004*. Live cattle, sheep and goats can only be exported under an export licence. The *Australian Meat and Livestock Industry Act 1997*, administered by DAFF, controls export licences. AQIS provides the export certification for live animals, ensuring the fitness of the animals and that importing country requirements have been met.

**Table 2 Legislation that includes requirements to manage hazards**

Source of the pathogens	Legislation
Pasture	<p>State and Territory legislation controls grazing and destruction of infected pasture and fodder and provides for the control, eradication and prevention of exotic diseases. The purpose of the legislation to prevent and control diseases in stock.</p> <p>The draft National Standard for Animal Feed, if introduced into legislation, has controls over pasture. Although the draft Standard focuses mainly on managing chemical hazards, it addresses application of manures and composts to grazing land.</p> <p>Under State and Territory animal welfare legislation, Welfare Codes of Practice may be already be mandatory or may be used by courts to determine whether a breach of legislation has occurred. A national system under animal welfare legislation such as Tasmania’s Animal Welfare Act 1993 will include new mandatory welfare standards.</p>
Feed i.e. manufactured feed, licks and supplements and fodder (including silage)	<p>There is legislation in all States and Territories that includes requirements for feed for example implementing the ruminant feed ban. The requirements cover labelling, feed content and feeding prohibitions such as feed that will spread diseases.</p> <p>An example is the Tasmanian Animal Health Act 1995 and the Animal Health Regulations 1996 (which contain the ruminant feed ban requirements). However, using the Tasmanian Act as an example, the requirements are based on issuing notices in regard to specific types of feed to specific types of animals and are therefore reactive in nature. There does not appear to be any State or Territory legislation that requires meat producers to source feed that is for example produced to minimise contaminants and which, again for example, are supplied with vendor declarations or supplier assurance arrangements (i.e. stock feed sellers do not have to provide certification of the micro (and pesticide) status of the feed). Trade Practices legislation would apply to any claims made but this would not be a responsibility on the producer of animals.</p> <p>The introduction of the National Standard for Animal feed could address these issues.</p> <p>Welfare legislation as above.</p>
Water	<p>There does not appear to be specific legislation that addresses the microbiological quality of water provided to animals for drinking.</p> <p>The Working Group developing the draft National Animal Feed Standard (18 Feb 2009) is considering the approach to take to managing water in the Standard.</p>

<b>Source of the pathogens</b>	<b>Legislation</b>
Veterinary and agricultural chemicals (including in feed and water)	Legislation controlling chemicals in feed is covered in Table 3 below.
The environment – premises and equipment (licking posts etc)	There does not appear to be legislation that manages microbiological hazards associated with premises and equipment other than indirectly through legislation such as livestock legislation as referred to above.  Note about animal welfare legislation applies here.
Pathogens may be introduced through injuries sustained during handling or from accidents or through insect bites and parasites. e.g. through damage to the skin/fleece/hide.	Livestock legislation is not aimed at controlling these types of meat safety hazards. Welfare legislation aims to prevent injury to animals for example, there is an offence under the Qld Animal care and protection Act 2001 if a person ‘unjustifiably, unnecessarily or unreasonably injures or wounds an animal’. However, this is in regards the welfare of the animal and not to prevent any subsequent effect on meat safety.

**Table 3 Residues in feed**

<b>State or Territory</b>	<b>Activity</b>		
	<b>Evaluation, registration and review of agricultural and veterinary chemicals, and their control, up to the point of retail sale. (The Agvet Code is law in the states and territories)</b>	<b>Control of use after sale of chemicals in feed and produce</b>	<b>Residues in feed</b>
New South Wales	Agricultural and Veterinary Chemicals (NSW) Act 1994	Pesticides Act 1999 and Pesticide Regulations 1995- for pesticides only not veterinary medicines Stock Medicines Act 1989 and Regulations 2005– for veterinary medicines	Stock Foods Act 1940 and Regulations 2005 Pesticides Act 1999 and Regulations- re pesticides Stock Medicines Act 1989 and Regulations 2005– for veterinary medicines

	<b>Activity</b>		
Victoria	Agricultural and Veterinary Chemicals (Victoria) Act 1994	Agricultural and Veterinary Chemicals (Control of Use) Act 1992 Agricultural and Veterinary Chemicals (Control of Use) Regulations 2007.  Agricultural and Veterinary Chemicals (Control of Use)(Fertilisers) Regulations 2005	Agricultural and Veterinary Chemicals (Control of Use) Act 1992
Queensland	Agricultural and Veterinary Chemicals (Qld) Act 1994	Chemical Usage (Agricultural and Veterinary) Control Act 1988 Agricultural Chemical Distribution Control Act 1966	Chemical Usage (Agricultural and Veterinary) Control Act 1988- Chemical Usage (Agricultural and Veterinary) Control Regulations 1999 Agricultural Standards Act 1994 and Agricultural Standards Regulation 1997 Stock Act 1915 provides power to regulate chemicals in fodder
South Australia	Agricultural and Veterinary Chemicals (SA) Act 1994	Agricultural and Veterinary Products (Control of Use) Act 2002 Agricultural and Veterinary Products (Control of Use) Regulations 2004 – standards for fertiliser incl. for cadmium, lead and mercury prescribed veterinary substances and restricted veterinary products.	Livestock Act 1997. Livestock Regulations
Tasmania	Agricultural and Veterinary Chemicals (Tasmania) Act 1994	Agricultural and Veterinary Chemicals (Control of Use) Act 1995	Agricultural and Veterinary Chemicals (Control of Use) Act 1995- Part 5

	<b>Activity</b>		
Western Australia	Agricultural and Veterinary Chemicals (WA) Act 1994	Veterinary Chemical Control and Animal Feeding Stuffs Act 1976 This Act is to be repealed by the proposed Biosecurity and Agriculture Management Act	Veterinary Chemical Control and Animal Feeding Stuffs Act 1976
ACT	Agricultural and Veterinary Chemicals (Commonwealth) Act 1994	Commonwealth	Commonwealth
NT	Agricultural and Veterinary Chemicals (NT) Act (as in force 2005)	Agricultural and Veterinary Chemicals (Control of Use) Act 2004	Agricultural and Veterinary Chemicals (Control of Use) Act 2004



## 2.2 Industry

### 2.2.1 Livestock Production Assurance (LPA)

The scope of the Livestock Production Assurance program is cattle (including dairy cattle) sheep and goats production. It was developed following a review of existing quality assurance programs and their adoption levels conducted by Meat and Livestock Australia in 2003. This review found that there was reluctance by cattle and sheep producers to engage with Cattlecare and Flockcare programs (see below) at that time and there was a need to underpin the National Vendor Declaration (NVDs)/Waybills with a system that ensured the integrity of the NVDs.

The LPA Level 1 provides a set of guidelines and checklists including a NVD to help producers declare the food safety status of their livestock. The LPA guidelines present producers with very basic animal production and record keeping requirements designed to ensure the production of safe food. The respective species NVDs require accurate declaration of livestock integrity, chemical treatments and feeding regimes.

#### LPA Level 1 – Food safety management

The LPA level 1 consists of one module, Food Safety Management, made up of five elements:

- Property risk assessment.
- Safe and responsible animal treatments – focusing on agricultural and veterinary chemical usage.
- Stock foods, fodder crops, grain and pasture treatments – focusing on livestock feeding issues and maintenance of the Ruminant feed ban.
- Preparation for dispatch of livestock – focusing on reducing the microbiological load and pathogen shedding.
- Livestock transactions and movements – focusing on management of information for traceability.

For each of the elements, there is a 'food safety outcome'. The food safety outcomes are aimed at ensuring meat from livestock is fit for human consumption. To maintain LPA accreditation, applicants must comply with all elements. These elements relate to what applicants declare and sign off on when completing the LPA NVD/Waybill.

#### LPA-QA (or Level 2 – Quality Assurance)

Livestock producers fully accredited in LPA Level 1 may participate in LPA QA. LPA -QA is an on-farm quality assurance program, incorporating the Cattlecare and Flockcare programs. It has been developed to provide a framework for producers to be able to readily adopt quality assurance systems on their properties. The LPA- QA contains three modules:

- Food safety management (see LPA Level 1).
- Systems management.
- Livestock management.

Each of the three modules has five elements. The food safety management module is the same as for LPA 1 (above).

The systems management module includes requirements for training, internal auditing and

corrective action, quality records, document control and chemical inventory.

The livestock management module includes requirements for livestock husbandry and presentation, livestock handling facilities, livestock transport, animal welfare and accredited livestock (i.e. a system to demonstrate that all livestock sold as having been produced in accordance with LPA-QA meet defined eligibility criteria.

Modules 1 to 3 are classified as "standard" modules and represent the minimum standard. That is, all producers seeking accreditation in the LPA-QA program must meet the requirements of these standard modules. Module 4 includes various optional modules that an accredited producer may elect to implement to meet customer requirements and/or further differentiate their business.

AUS-MEAT is responsible for auditing the LPA programs. AUS-MEAT Limited is an industry owned, non-profit company operating as a joint venture between Meat & Livestock Australia (MLA) and the Australian Meat Processor Corporation (AMPC). It operates as a non-profit company wholly owned by MLA and AMPC. AUS-MEAT Limited is cited as the 'Standards Body' responsible for setting standards for meat for export under Regulation 3 (1) of the Australian Meat and Livestock Industry (Export Licensing) Regulations 1998. A Memorandum of Understanding (MOU) confirms the arrangements between AQIS and AUS-MEAT for the verification of trade description requirements under the Export Control Act 1982 and the Export Control (Meat and Meat Products) Orders 2005<sup>5</sup>.

### *2.2.2 Cattlecare*

The Cattlecare system is an on-farm quality assurance program for producers raising cattle now incorporated in LPA. Cattlecare places particular importance on:

- Minimising risk of chemical contamination through the safe, responsible use of chemicals.
- Minimising bruising and hide damage.
- More effective management and herd improvement through better record keeping.

The Cattlecare program is an LPA –QA (Level 2) program and was developed in accordance with ISO 9000 and HACCP principles as the production-based quality assurance program for grass-fed beef. Some aspects of Cattlecare are covered by LPA level 1.

Cattlecare recognises the fact that many property owners run both sheep and cattle, and is compatible with the Flockcare program.

### *2.2.3 Flockcare*

The Flockcare system is an on-farm quality assurance program for producers raising lambs and sheep now incorporated in LPA. Flockcare addresses:

- Food safety, chemicals and residues.
- Animal health, husbandry and welfare.
- Preparation, presentation and transport.

### *2.2.4 Australian Pork Industry Quality (APIQ) Program*

The APIQ Program is an on-farm auditable quality assurance program for the production of

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<sup>5</sup> AUS-MEAT website [www.ausmeat.com.au](http://www.ausmeat.com.au) 12/08/2009

pigs developed by Australian Pork Limited. For accreditation under the program, producers must have systems to demonstrate:

- Property and production management
- Chemical identification, control and management
- Drug identification including withholding periods and export slaughter interval and control and management
- Biosecurity and welfare management
- Food safety management
- Record keeping and audit arrangements.

The aim of the microbiological food safety component (biological standards) is to ensure that production and transport practices reduce or prevent carcass contamination by microorganisms that cause food-borne illness. The standards address four main areas of control; controlling rodents, access by cats to feed and bedding, ensuring transport trucks are clean before loading and managing feed curfews.

Physical and chemical standards address hazards in these areas and the quality standards address stress and injury during transport.

The APIQ Program is administered by Australian Pork Limited. APIQ registers facilitators (to assist producers develop their programs) and auditors.

The APIQ Program is a component of a broader system to underpin the integrity and traceability of Australian Pork, the Pork Supply Chain Integrity System. It meets the requirements of the PigPass National Vendor Declaration (see Section 7.1.5) to provide assurance that the property from which the pigs have been sourced has a quality assurance program for pig husbandry and complies with industry standards and legislation.

Under current quality assurance arrangements to support the PigPass NVD, pig producers can take a first step in implementing quality assurance programs by implementing PigPass QA. This is a simplified food safety program which addresses food safety. Once accredited, producers can include their accreditation on the PigPass NVD and move to be fully accredited under the more comprehensive APIQ program. The APIQ program (or equivalent) is required for pigs slaughtered at export abattoirs. PigPass QA is acceptable for some domestic supply.

APL is further developing the pork supply integrity system, particularly to ensure that traceability performance standards can be consistently met.

#### *2.2.5 Safe Quality Food 1000 and 2000*

Safe Quality Food (SQF) 1000 and 2000 product certification schemes are licensed by the Food Marketing Institute (FMI).

SQF 1000 provides an integrated food safety and quality management certification scheme for the primary producer.

SQF 2000 provides the food sector (including primary producers, food manufacturers, retailers, agents and exporters) a food safety and quality management certification scheme that enables suppliers to meet regulatory, food safety and commercial quality criteria.

SQF Certification provides an independent and external validation that a product, process or service complies with international, regulatory and other specified standard(s). It enables a

food supplier to give assurances that food has been produced, prepared and handled according to the standards.

The SQF Codes, based on Codex Alimentarius HACCP Guidelines, offers the food sector a way to manage food safety and quality simultaneously. In addition to good agricultural practices, a producer develops and maintains food safety and food quality plans to control those aspects of their operations that are critical to maintaining food safety and quality.

SQF 1000 and 2000 are recognized by the Global Food Safety Initiative as conforming to international standards and utilize protocols administered by International Accreditation Forum member Accreditation Bodies. Whilst the SQF program has been implemented by over 5000 companies internationally, most Australian primary producers accredited under SQF1000 are based in West Australia.

### *2.2.6 National Feedlot Accreditation Scheme*

The National Feedlot Accreditation Scheme (NFAS) is an industry self-regulatory quality assurance scheme initiated by the Australian Lot Feeders Association (ALFA) and managed by the Feedlot Industry Accreditation Committee<sup>6</sup>. It is an industry funded and managed quality assurance scheme that includes compliance with food safety and integrity legislation. Under the program, beef feedlots can demonstrate they are operating in accordance with requirements in relation to animal welfare, environment, meat quality and food safety.

Accreditation under NFAS is mandatory for all grain fed beef exported from Australia. Beef for export cannot be described as 'grain-fed' under the Export Control (Meat and Meat Products) Orders administered by AQIS unless it is derived from an NFAS accredited feedlot. Whilst around two thirds of grain fed beef is exported from Australia, the vast majority of grain fed cattle are from NFAS accredited feedlots given that the larger feedlots (which sell most of these cattle) are all accredited. NFAS accreditation may be withdrawn (hence relinquishing a feedlots ability to export grain fed beef) if a feedlot fails to comply with NFAS standards.

The standards include requirements for cattle welfare, the environment, stock identification systems (including livestock transactions and movements), carcass quality, transportation (see later), chemicals and chemical use, stock feed, emergency response management and the systems, reviews and documentation supporting these standards. Documentation includes completion of National Vendor Declarations for all cattle introduced into the feedlot, completion of Commodity Vendor declarations for all feedstuffs consumed by cattle in their diet, recording of livestock transactions and movements of cattle to and from the feedlot and records kept to provide documentary evidence of compliance with the NFAS Rules and Standards.

Participants in the NFAS are independently audited each year by AUS-MEAT at no expense to government. AUS-MEAT conducts its operations including the NFAS under its internal ISO 9001:2000 certified management system and is also accredited by the Joint Accreditation System – Australia and New Zealand (JAS-ANZ). Industry participation in NFAS is voluntary. However, the vast majority of Queensland feedlots are accredited given that the beef for export cannot be described as "Grain fed" under the Export Control (Meat and Meat Products) Orders administered by the Australian Quarantine and Inspection Service unless it is derived from animals finished in a NFAS accredited feedlot.

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<sup>6</sup> Organisations represented on the Feedlot Industry Accreditation Committee are: AUS-MEAT Limited, Australian Lot Feeders' Association, NSW Interdepartmental Committee on Intensive Agriculture, QLD Feed Lot Advisory Committee and the Victorian Feedlot Committee.

## 2.2.7 Industry programs to manage feed

### Feedsafe

'FeedSafe' aims to mitigate risks to food safety in the manufacture and use of animal feeds. Feedsafe is operated by the Stock Feed Manufacturers' Council of Australia. Members are required to comply with the *Code of Good Manufacturing Practice for the Feed Milling Industry* to maintain their membership and undergo annual site audits by third party auditors. The Code was developed in conjunction with the Chief Veterinary Officers of each State and the final document has Primary Industries Ministerial Council endorsement. Livestock producers are recommended to purchase feed from 'FeedSafe' accredited suppliers.

### AFIA Code of Practice - Fodder Care QA

The Australian Fodder Industry Association Inc (AFIA) has produced a Product Code of Practice which aims to assist fodder producers to enhance their product and on-farm management for the benefit of their clients. This Code of Practice is a free service to AFIA members and involves an annual declaration by the fodder producer/supplier, certifying that conditions of product safety and quality have been met. This form will obligate the supplier to abide by the Product Code of Practice. Buyers will be able to check with the AFIA if particular suppliers are entitled to claim compliance. If members abide by this program, members will be entitled to use the term "Quality compliant to AFIA Product Code of Practice" when marketing their hay and silage.

In regard to safety, the Product Code of Practice requires sellers of hay and silage to apply any chemicals to the crop during production in accordance with the respective label and comply with any withholding periods and supply a vendor declaration forms with each lot of fodder

### Others

CSIRO has published the *Australian Code of Good Manufacturing Practice for Home-mixed Feeds, the Feed-milling Industry and Stock-feed Premixes* aims to control residues in feed<sup>7</sup>. Meat and Livestock Australia has published the *Australian Meat and Bone Meal Guide for Feed Manufacturers*<sup>8</sup> which was developed jointly by the Australian renderers Association and the MLA. It provides recommendations for use of MBM in animal feeding

**Table 4 Industry schemes that include requirements to manage hazards**

<b>Source of the pathogens</b>	<b>Current industry scheme or system<sup>9</sup></b>
Pasture	LPA level 1 food safety requires a property risk assessment which is comprehensive in regards to managing chemicals on farm but does not address microbiological or physical hazards. The remaining elements do not address pasture. LPA level 2 also focuses on chemical issues and does not address pasture management in terms of microbiological hazards.

<sup>7</sup> CSIRO SCARM Report 41 *Australian Code of Good Manufacturing Practice for Home-mixed Feeds, the Feed-milling Industry and Stock-feed Premixes* 2003.

<sup>8</sup> MLA *Australian Meat and Bone Meal Guide for Feed Manufacturers* 2003

<sup>9</sup> This means schemes or systems for which there is some form of certification or accreditation available. Not addressed are ISO 9001-2000 or ISO 22000-2005 because they are not targeted specifically at the meat industry or primary producers. In addition there is guidance produced by governments and industry not included in the Table.

Source of the pathogens	Current industry scheme or system <sup>9</sup>
	<p>APIQ requires a food safety plan which addresses chemical, physical and microbiological hazards.</p> <p>SQF 1000 requires pre-requisite programs and food safety plans.</p> <p>Welfare codes for example, the Model Code of Practice for the welfare of animals- goats, requires that goats should be protected as far as possible from foods and materials deleterious to their health.</p>
<p>Feed i.e. manufactured feed, licks and supplements and fodder (including silage)</p>	<p>LPA levels 1 and 2 focus on chemical contamination and do not address microbiological contamination of feed.</p> <p>APIQ includes requirements to prevent pig feed from becoming contaminated by vermin and cats and includes a standard prohibiting swill feeding for biosecurity reasons. As above, the food safety plan component of APIQ includes measures to identify and control microbiological hazards including hazards from feed.</p> <p>‘FeedSafe’ and Fodder care QA (see above)</p> <p>The National Feedlot Accreditation Scheme for beef feedlots contains elements that address feedlot rations and feed control.</p> <p>Codes of Practice include requirements for feed for example, the <i>Code of Good Manufacturing Practice for Home-mixed Feeds</i>, the <i>Feed-milling Industry and Stock-feed Premixes</i> controls residues in feed and the <i>Australian Meat and Bone Meal Guide for Feed Manufacturers</i> includes recommendations for use of MBM in animal feeding.</p> <p>Welfare Codes require adequate quality of feed to maintain good health, though this in itself does not address meat safety.</p>
<p>Water</p>	<p>LPA levels 1 and 2 address under welfare requirements.</p> <p>APIQ food safety plan includes supply of clean fresh water and testing if water is suspect.</p> <p>Welfare Codes of Practice require animals to have access to drinking water of suitable quality and quantity. These Codes of Practice are aimed at ensuring the care of animals and the prevention of cruelty without adversely affecting meat safety.</p>
<p>Veterinary and agricultural chemicals (including in feed and water)</p>	<p>LPA level 1 addresses the risk of livestock being exposed to sites that are unacceptably contaminated and that on-farm systems are in place to ensure that animal treatments are administered in a safe and responsible manner to minimise the risk of chemical residues. Exposure to feed containing unacceptable chemicals is also addressed. LPA level 2 requires system to train staff and manage chemicals.</p> <p>APIQ includes chemical standards to avoid chemical residues in pork. These address dose rates, feed controls, record keeping systems and training of staff.</p>

Source of the pathogens	Current industry scheme or system <sup>9</sup>
	Welfare Codes of Practice include requirements to protect cattle from chemicals – for example, that care should be taken to ensure that residues of chemicals used to treat animals or crops are neither present in by-products nor likely to cause contamination.
The environment – premises and equipment (licking posts etc)	<p>LPA level 1 does not specifically address this.</p> <p>APIQ requires a program in place to control rodents and cats. SOPs in the food safety plan include cleanliness and maintenance of piggeries.</p> <p>Welfare standards require a clean environment and includes requirements to minimise disease for example - for sheds, pens, yards, ramps etc are to be constructed and maintained to minimise 'disease'.</p>
<p>Pathogens may be introduced through injuries sustained during handling or from accidents or through insect bites and parasites. e.g. through damage to the skin/fleece/hide.</p> <p>Excessive stress increases susceptibility to injury and disease.</p>	<p>LPA level 1- not addressed specifically.</p> <p>LPA level 2 requires systems to ensure that livestock handling and loading facilities are designed, constructed and maintained to minimise livestock injury, bruising and hide damage<sup>10</sup> and requires understanding and compliance with the welfare codes for cattle and sheep<sup>11</sup>. LPA level 2 also includes systems to manage husbandry practices to minimise damage to carcass, hides etc.</p> <p>APIQ food safety plan requires hazards specific to the piggery to be addressed and presumably this would include design, construction and maintenance to prevent injuries. Handling must comply with the welfare code of practice.</p>

<sup>10</sup>LPA QA Livestock management activity guide Module 3 LM2 Livestock handling facilities

<sup>11</sup> LPA QA Livestock management activity guide Module 3 LM 4 Animal welfare

### 3. Transport

#### 3.1 Regulatory

##### 3.1.1 Australia New Zealand Food Standards Code

There are no requirements in the Code that include the control measures for transport.

##### 3.1.2 State and Territory

**Table 5 State and Territory legislation controlling transport from farm/saleyard to abattoir<sup>12</sup>**

State/Territory	Legislation
NSW	<p><b>Stock Disease Act 1923</b> has restrictions on movement of diseased stock and the sale of diseased stock.</p> <p><b>Stock Diseases Regulations 2004</b> have provisions for movement of things out of quarantine areas but do not address general transport conditions.</p> <p><b>Prevention of Cruelty to Animals Act 1979</b> has similar provisions to other jurisdictions including provisions re transport of animals.</p>
Qld	<p><b>Stock Act 1915</b> has restrictions on movement of stock, notification of diseases and disposal of cattle and treatment of vehicles. However, the primary intention is to prevent the spread of diseases among stock and spread to people. It is not to control safety and suitability of meat generally through controlling transport of animals.</p> <p><b>Stock Regulations 1988</b> have provisions for movement of stock and sale of diseased or suspected stock.</p> <p><b>Animal Care and Protection Act 2001</b> re regarding prevention of cruelty, injury and protecting welfare during transport by providing appropriate food, water, shelter and rest.</p>
Victoria	<p><b>Livestock Disease Control Act 1994</b> has similar provisions to NSW and Qld.</p> <p><b>Livestock Disease Control Regulations 2006</b> Notification of diseased stock and identification</p> <p><b>Prevention of Cruelty to Animals Act 1986</b> Similar to other jurisdictions. Refers to unnecessary or unreasonable pain and suffering.</p>
South Australia	<p><b>Livestock Act 1997</b> has similar provisions to above</p> <p><b>Livestock Regulations 1998</b> – identification and matters similar to other States regulations.</p> <p><b>Animal Welfare Act 1985</b> Makes it an offence to ill treat animals and qualifies that ill treatment covers matters such as failing to provide animals with appropriate, and adequate, food, water, living conditions (whether temporary or permanent) or exercise; or (ii) failing to take reasonable steps to mitigate harm suffered by the animal.</p>
Tasmania	<p><b>Animal Health Act 1995</b> Covers quarantine areas, movement of stock, notification of disease in stock, However, the primary intention is to control diseases among stock and spread of diseases that can be transmitted to people such as hydatids. It is not generally to control safety and suitability of meat.</p>

<sup>12</sup> State and Territory transport legislation has not been considered. The National Transport Commission website [www.ntc.gov.au](http://www.ntc.gov.au) provides details of transport regulatory reform.



State/Territory	Legislation
	<b>Animal Welfare Act 1993 and regulations</b> (which may prescribe standards to be complied with) as per other states.
WA	<p><b>Stock Diseases Act and Regulations</b> An Act to make provision for the prevention, eradication and control of Diseases in Livestock, etc.</p> <p><b>Enzootic Diseases Regulations 1970</b> (made under the above Act) Covers eradication and control of enzootic diseases, movement of stock provisions re certain diseases such as TB, cattle tick, brucellosis etc, and identification.</p> <p>Animal Welfare Act 2002 and Regulations – similar provisions to other states</p>
ACT	<p><b>Animal Diseases Act 2005</b> Includes Prevention and control of exotic and endemic diseases to 'maximise the opportunity to deal with the disease and prevent losses to the wider community through the spread of disease'.</p> <p><b>Stock Act 2005</b> covers movement of stock. Animal health matters are covered under the Animal Diseases Act.</p> <p><b>Stock Regulation 2005</b> covers management of stock ownership and animal health issues appropriate with the identification, movement and impounding of stock.</p> <p><b>Animal Welfare Act 1992</b> The Act promotes the welfare of animals including by proscribing a range of behavior which is considered to be cruel or otherwise is deleterious to the health and welfare of animals. It includes that a person must not transport an animal in circumstances under which the animal is subjected to unnecessary injury, pain or suffering.</p>
NT	<p><b>Stock Diseases Act 2004</b> <b>Animal Welfare Act 2004</b> Contain similar requirements to other jurisdictions.</p>

**Table 6 Legislation addressing specific control measures**

Control measure	Legislation
Animals are fit to travel	<p>Producers and stock agents are certifying the health status of animals when they are moved within the State and interstate through completion of the national vendor declaration NVD, waybills or Travelling Stock Statements. In most cases documentation is a legal obligation for example, a person responsible for dispatching sheep or farmed goats to a Victorian saleyard without a correctly completed NVD has committed an offence under the Livestock Disease Control Act 1994<sup>13</sup> and may be fined.</p> <p>However, the information in State government fact sheets is not always specific as to the extent of the documentation that is legally required and that which is 'voluntary' and promoted or required under industry schemes. It is clear that whether industry driven or through legislation, documentation must accompany animals in order for them to be accepted by abattoirs.</p> <p>The documentation requires declaration that the animals are in good health or fit to travel and meet specific requirements regarding veterinary medicines. There may be references to specific diseases such as Johne's disease but these are in relation to animal health as biosecurity measures) rather than human health.</p> <p>Animal welfare legislation references or adopts welfare codes of practice. The provisions not only manage the welfare of the animals but also control disease and injury issues prior to transport. The Model Code of Practice- Land Transport of Cattle <sup>14</sup>specifies that only animals fit to travel should be selected and presented for transport. More specifically it advises to avoid stressing the animals before transport and provides measures for specific cases for example, cows more than eight months pregnant or which have recently given birth should not be consigned and nor should calves that are not strong enough. Injured, weak or diseased cattle should only be transported on veterinary advice and there are special considerations for animals affected by bushfire or drought. Animals that are showing obvious distress which cannot be relieved should be destroyed.</p> <p>The Model Code of Practice for Welfare of Animals – Land transport of pigs 1998 has requirements for minimising stress, pre-transport preparation of pigs, loading density, rest periods etc.</p>
Animals are as clean as practicable	State and Territory legislation in Table 5 above may address this.

<sup>13</sup> DPI Victoria booklet May 2006 – '*Your guide to Victoria's Sheep and Goat identification legislation*'.

<sup>14</sup> A national land transport Standard for land transport of cattle is currently under development (Department of Agriculture, Fisheries and Forestry) as part of the Australian Animal Welfare Strategy. The intention is to promote consistency across the states and territories by developing standards for inclusion in legislation and supported by guidelines.

Control measure	Legislation
Implementing feed curfews without adverse effects on meat safety	Generally control measures aim to balance the welfare of the animal and achieving clean uninjured or stressed animals at the end of the transport phase. Therefore in Australia welfare standards include requirements for feed and water curfews.
Vehicles are clean prior to loading	State and Territory legislation in Table 5 may address this. It is difficult to determine whether the degree of truck cleanliness required for animal health legislation is sufficient to ensure that hide contamination is low enough for meat safety reasons.
Animals are not unduly stressed so as to affect meat safety or suitability	The Welfare legislation addresses this but as above no assessment has been made as to the extent this would manage safety and suitability issues. The inclusion of the welfare standards (e.g. the new land Transport Standard) in legislation may contribute to reducing stress.
Loading, driving and unloading is carried out in a manner that avoid injury to animals	As above.

## 3.2 Industry

### 3.2.1 TruckCare

TruckCare is a voluntary quality assurance program aimed at delivering good animal welfare, biosecurity, animal traceability and resultant food safety outcomes whilst transporting livestock. It is administered by the Australian Livestock Transporters Association.

The program is aimed at raising awareness, introducing quality management, implementing a quality management system integrated with customers or road transport quality assurance programs. TruckCare has been developed with the assistance of the Department of Primary Industries, Victoria and is designed to integrate with other quality programs including CattleCare, FlockCare, National Saleyard Quality Assurance and TruckSafe<sup>15</sup>.

Stock transport companies are independently audited to demonstrate compliance against the program and accredited companies are listed on the TruckCare website.

### 3.2.2 LPA and APIQ

Industry programs such as LPA and APIQ includes standards for transport aimed at reducing stress prior to slaughter (Table 7) For example, in APIQ the main requirements are

<sup>15</sup> TruckSafe is a business and risk management system, which is aimed at improving the safety and professionalism of trucking operators nationwide. It is operated by the Australian Trucking Association. [www.atatruck.net.au](http://www.atatruck.net.au)

that transport and loading requirements avoid sunburn (which would not only stress the pig but damage the skin and thereby affect suitability), temperature stress and exposure, stocking rates are observed, pigs different in weight are separated, and dogs and electric prodders are used appropriately.

### *3.2.3 National Feedlot Accreditation Scheme*

The NFAS includes standards for cattle transport tracks aimed at minimising carcass bruising and hide damage, soiling of animals ensuring food and water allowances and rest stops, including inspections at these stops, are conducted. The standards also require complaints in relation to bruising and hide damage received from purchasers or processors to be documented and investigated, and that appropriate corrective and preventive action is taken and documented.

### *3.2.4 Others including welfare*

Compliance with welfare Codes of Practice, and any legal obligations, is stressed as important under the industry schemes. Apart from the welfare of the animal, compliance avoids injury, suitability and quality issues with the meat and potential condemning of carcass or parts on slaughter.

There is considerable guidance for industry on industry and government websites including The Australian Code of Practice for Selling of Livestock which has requirements for transport including fitness for travel, loading and unloading and cleanliness of vehicles.

The MLA<sup>16</sup> publish a guide to transport, 'Is it fit to load?' , developed in consultation with the livestock industry to help producers decide if an animal is fit to be loaded for transport to saleyards, abattoirs, or any other destination. It includes a list of questions that a producer should ask about the animals before it is loaded and promotes adequate pre-planning to minimise stress for example, ensuring stockyards and loading ramp are adequate for the job and vehicles are safe and of a design that will not cause harm to livestock.

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<sup>16</sup> *Is it Fit to Load* April 2006 developed by the MLA from a WA guide, with the assistance of industry groups (acknowledged in the guide). Available on [www.mla.com.au](http://www.mla.com.au)

**Table 7 Examples of requirements in industry schemes**

<b>Control</b>	<b>Industry schemes</b>
Animals are fit to travel	<p>LPA level 1 requires on-farm systems to ensure that selected livestock are fit for transport and that the risk of stress and contamination of livestock during assembly is minimised (Element FS4). It provides that only animals fit for transport are selected and no sick or injured animals are consigned.</p> <p>LPA level 2 also has requirements to ensure animals are fit to travel.</p> <p>'TruckCare' requires all animals to be fit for the intended journey and the ALTA provides guidance that stress in transport is cumulative so must be addressed in preparing stock for transport to reduce skin staining, bruising, downers and deaths. It also advises that stock that are sick, injured, diseased, blind, severely lame, severely emaciated or heavily pregnant should not travel and should be drafted out and cared for <i>before</i> loading.</p> <p>APIQ food safety plan scope is to loading pigs for transport. 'Pre-sale check' does not specifically mention assessing fitness for travel. However, PigPass QA includes assessing whether fit for transport.</p>
Animals are as clean as practicable	See above
Implementing feed curfews without adverse effects on meat safety	<p>Industry schemes include appropriate curfews prior to transport.</p> <p>APIQ requires under the biological standards that the time animals are removed from feed is communicated to the abattoir to allow an interval before slaughter of 6-24 hours. This is to prevent conditions such as PSE as a result of pre-slaughter stress induced by starvation.</p> <p>LPA QA specifies that cattle destined for slaughter have at least six hours curfew before departure and sheep and goats have at least 12 hours dry curfew.</p> <p>TruckCare specifies that all livestock should be curfewed off water and preferably fed hay in yards 24 hours prior to travel. The rationale for this is that 'stock becomes sluggish if left on water and green feed. They do not load well, take longer to settle in the crate and can go down' This results in contamination and possible trampling by other animals leading to bruising or death.</p>

<b>Control</b>	<b>Industry schemes</b>
Loading, driving and unloading is carried out in a manner that avoid injury to animals	<p>TruckCare requires transport crates, trailers, and associated transport equipment to be designed, maintained and operated to minimise any adverse effects on livestock during transport.</p> <p>APIQ has specific standards for truck cleaning under the biological standards.</p> <p>LPA level 1 requires the producer to check vehicles are clean prior to loading and to act on complaints of excessive soiling of livestock..</p>
Implementing feed curfews without adverse effects on meat safety	<p>TruckCare aims to manage issues such as stress through for example, trained staff and adequate planning of journeys. Also see below.</p> <p>APIQ has requirements for transport to avoid animal stress under the quality standards. These include stocking rates, trip length and separation of different weight pigs.</p> <p>LPA level 1 requires that the risk of stress prior to transport is minimised. As it is about on-farm systems it does not cover transport operators. However LPA level 2 requires systems on farm to include advising transport operator about rest stops etc.</p>
Loading, driving and unloading is carried out in a manner that avoid injury to animals	<p>TruckCare requires that livestock are handled, loaded, transported and unloaded in a manner minimises stress and injuries. Also, the feed curfew management indirectly manages injury caused by animals that go down on the truck.</p> <p>LPA level 2 requires systems to ensure that the risk of injury, bruising, hide and skin damage during transportation of stock is minimised (LM3).</p>

## 4. Saleyards

### 4.1 Regulatory

#### 4.1.1 Australia New Zealand Food Standards Code

There are no requirements in the Code that include the control measures for saleyards.

#### 4.1.2 State and Territory

The legislation controlling animal health and diseases would cover management of these issues at saleyards. Also there are planning and environment requirements covering the location and operation of saleyards which may impact on their design and construction. However, these are outside the scope of the First Assessment.

There is a model Code of Practice for the Welfare of Animals – Animals at Saleyards SCARM Report 31. States and Territory governments have powers to adopt or reference welfare codes of practice into their legislation or include the specific requirements into their legislation to require compulsory compliance- see section 2.1.2.3 above. At this stage FSANZ has not examined the extent to which the Code of Practice adopted.

### 4.2 Industry

#### 4.2.1 The National Saleyards Quality Assurance Program (NSQA)

The program is owned and operated by National Saleyards Quality Assurance Ltd, which is a company in its own right owned by members of NSQA. The NSQA Program was developed to underpin the *National Standard for the Operation of Australian Saleyards*. This Standard was developed with input from all sectors of the Industry. The NSQA Program is an auditable means of managing and assessing compliance with the Standard.

NSQA was developed because over the past fifteen years there has been a steady move throughout the livestock and meat industries to embrace the principles of Quality Assurance as a means of addressing the demands of the market place and the saleyards selling industry recognised the merit of using Quality Assurance to underpin the National Standard for the Operation of Australian Saleyards.

The program focuses on six areas that impact on quality; animal welfare, residue status, food safety, meat quality, traceability and stakeholder satisfaction. It has four components; The *National Standard for the Operation of Australian Saleyards*, the quality manual, related quality records and supporting competency standards and work instructions. Issues related to food safety are identified in a Quality Impact Chart and include watering facilities\*, feeding\*, veterinary facilities, chemical usage\*, cleaning of facilities\*, truck wash facilities and effluent disposal\*. Stock identification\*, dirty stock\*, dead stock disposal\*, isolation of suspect stock\* and vendors risk stock are also included. The risk to quality is indicated and includes most of the food safety areas i.e. those marked \*.

AUS-MEAT Limited has been appointed by NSQA Ltd as auditors for the NSQA Program. AUS-MEAT is responsible for ensuring that both the Quality Assurance System developed by each saleyard and the saleyard facilities themselves meet the requirements of the National Standard for the Operation of Australian Saleyards. Of the approximately 200 saleyards operating on a regular basis (i.e. more than a couple of times a year), around a 100 are members of NSQA and around 50% are accredited. This includes all but two of the largest saleyards.

#### 4.2.2 Australian Code of Practice for the Selling of Livestock

The Code of Practice has been developed by the Saleyard Operators Australia, the official trading name of Saleyard Operators Association of NSW Inc established in 1881. Originally a NSW organisation it now has members across Australia and claims that it is the peak industry body, having the largest number of active members; the owners and operators of saleyards across Australia.

The Code of Practice was developed from the Model Code of Practice for the Welfare of Animals – Animals at Saleyards prompted by the need for standards that were adequate but not as onerous as those required for accreditation under the NSQA program. Some abattoirs, particularly the smaller ones, could not make the structural changes needed to meet the accreditation standard and others preferred not to be part of the NSQA program. It is a guide to aid saleyard operators comply with requirements for health, safety and welfare of all classes of livestock for sale at saleyards. The requirements are not legally enforceable. However, they may be used as evidence that State and Territory legislation has been contravened or as a defence where the requirements have been met.

The Code of Practice covers several meat safety factors mainly aimed at preventing stress and the adverse effects on meat for example, dark cutting meat, as a result of stress, including provision of feed and water of suitable quality, provision of shelter, care handling animals and ensuring the safety of animals, cleanliness of the yards, transport of animals, handling of weak, injured and ill livestock and condition of livestock offered for sale. There are also provisions for animal identification, emergency disease response, and guidelines for biosecurity.

It is estimated<sup>17</sup> that about 80% of saleyards would comply with the Code of Practice, particularly the larger ones (i.e. more modern, bigger throughput).

## 5. Processing

The animal processing sector is in a position to manage:

- the condition (or fitness) of animals accepted for slaughter to the extent that safety and suitability can be assessed visually in the live animal and from documentation accompanying the animal;
- hazards that could present while animals are in the lairage such as injury and stress;
- hygiene during the slaughter and dressing process; and
- disposition of meat that has been assessed (mainly visually) as not fit for human consumption.

### 5.1 Regulatory

#### 5.1.1 Australia New Zealand Food Standards Code

The food standards in Chapter 1 of the Code apply to all food sold or traded at retail and wholesale level in Australia and New Zealand. The exceptions are Standard 1.6.2 – *Processing requirements* and Standard 1.4.2 – *Maximum Residue Limits* which apply in Australia only. These standards include labelling requirements, the maximum permitted levels for additives, processing aids, contaminants and natural toxicants, maximum residue levels for agricultural and veterinary chemicals in food, requirements for materials in contact with food, processing requirements and microbiological limits for food. Chapter 2 contains

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<sup>17</sup> Saleyard Operators Australia, (Ron Penny- personal communication)



requirements for specified classes of foods and includes Standard 2.2.1 Meat and Meat Products. Therefore, meat and meat produced must comply with these requirements when offered for sale.

Although the meat produced as a result of the slaughtering of animals must meet the above requirements, there are no requirements in Chapter 1 or Chapter 2 of the Code that apply to the slaughter, dressing and secondary activities such as boning or production of primary products (such as natural casings and rendered products).

Chapter 3 Chapter 3, Standards 3.2.2 -*Food Safety Practices and General Requirements* and 3.2.3- *Food Premises and Equipment* set out specific requirements for food businesses, food handlers and the food premises and equipment with which they operate to ensure the safe production of food. The Chapter 3 Food Safety Standards apply in Australia only and apply to all food businesses, other than primary production businesses<sup>18</sup>, involved in the handling of food intended for sale. Under the application provisions in Chapter 3, these standards would apply to meat processing.

Standard 3.2.2 requires food to be protected from contamination, to be stored under appropriate temperatures and other environmental conditions (to ensure safety and suitability), to use safe ingredients and to be processed so that the food is safe to eat. There are also requirements for health and hygiene of personnel and for cleaning and sanitation. Standard 3.2.3 has requirements for premises and equipment that facilitates compliance with Standard 3.2.2<sup>19</sup>.

#### 5.1.2 Imported meat

The importation of meat, whether cooked and uncooked, is regulated by the Department of Agriculture, Fisheries and Forestry under the *Quarantine Act 1908* and the *Imported Food Control Act 1992* and regulations and implemented at the border by AQIS.

An import permit with conditions may be required depending on the product. Information on import requirements is available in the ICON database on the AQIS website<sup>20</sup>. If a permit is granted and the food permitted entry it must comply with the Imported Food Control Act. The object of the Act is to provide for the compliance of imported food with the *Australia New Zealand Food Standards Code* and requirements of public health and safety.

#### 5.1.3 Exported meat

The export of meat is regulated by the Department of Agriculture, Fisheries and Forestry under the Export Control Act 1992, Export Control (Prescribed Goods - General) Order 2005 and the Export Control (Meat and Meat Products) Order 2005. AQIS provides inspection, verification and certification services to the export meat industry in Australia including export certification, a scientifically-based meat inspection system at meat processing plants and audits of approved arrangements. Comprehensive details of the AQIS export meat program are available on the AQIS website in ELMER 3 (Electronic Legislation, Manuals and Essential References) which contains Legislation, AQIS Meat Notices, Export Meat Manual Volume 2, Guidelines etc, and a range of other information relating to the program.

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<sup>18</sup> Primary food production means the growing, cultivation, picking, harvesting, collection or catching of food and includes transportation or delivery, and the packing, treating (such as washing) or storing of food on the premises on which it was grown, cultivated, picked etc.

<sup>19</sup> Detailed inclusions in these Standards can be found on the FSANZ website.

<sup>20</sup> [www.daff.gov.au](http://www.daff.gov.au)

#### 5.1.4 State and Territory legislation

All States and Territories have legislation that requires businesses operating abattoirs/meat slaughtering facilities to be licensed or accredited and to operate in accordance with approved systems to manage meat safety and suitability. The legislation requires the businesses to comply with the *Australian Standard for the Hygienic Production and Transportation of Meat and Meat Products for Human Consumption* AS 4696-2007.

**Table 8 State and Territory legislation applying to processing.**

State/Territory	Legislation
<b>Qld</b>	<p><b>Food Production (Safety) Act 2000</b> establishes food safety schemes.</p> <p><b>Food Production (Safety) Regulations 2002</b> There are general requirements in the Regulations that apply to all the food safety schemes.</p> <p>The meat scheme applies for the following (relevant to Stage 1)—</p> <ul style="list-style-type: none"> <li>(a) handling of an animal at a place where the animal is killed for meat;</li> <li>(b) processing meat or smallgoods intended for human consumption;</li> <li>(c) handling, packaging or storing meat or a meat product;</li> </ul> <p>It does not apply to the rearing of cattle, transport to abattoir or production of feed.</p> <p>The business must be accredited and to gain accreditation must have a food safety program or a management statement as required, and meet requirements for auditing etc.</p> <p>There are compulsory standards and advisory standards<sup>21</sup> that apply to the meat businesses. The measures relevant to a specific stage of processing are described under that stage. The compulsory standards refer to Standards 3.2.2 and 3.2.3 in Chapter 3 of the Code and the advisory standards refer to Chapter 3 and AS 4696.</p>
<b>NSW</b>	<p><b>Food Act 2003</b></p> <p>The Act provides for regulations to prescribe food safety schemes in relation to a type, class or description of food, food business or activity carried out in respect of food.</p> <p><b>Food Regulation 2004 Part 5</b> establishes the Meat Food Safety Scheme.</p> <p>Abattoirs must be licensed. The minimum standard for abattoirs (cattle, sheep, goats and pigs i.e. not poultry, rabbit, ratite or crocodile) is AS 4696.</p> <p>The operational standard is either an ‘approved quality assurance program that incorporates the principles of HACCP’ OR ‘an approved HACCP program and AS4696 and clause 9 of Standard 1.6.2 of the Food Standards Code (clause 9 ceased to have effect on 24 November 2007 and is now covered by Standard 4.2.3).</p>
<b>Victoria</b>	<p><b>Meat Industry Act 1993</b></p> <ul style="list-style-type: none"> <li>(a) to set standards for meat production for human consumption and pet food;</li> <li>(b) to set up a licensing and inspection system and a mechanism for adopting and implementing quality assurance programs to ensure that those standards are maintained;</li> <li>(c) to enable the regulation of meat transport vehicles;</li> <li>(d) to establish the Victorian Meat Authority to operate that licensing and inspection system and arrange for the adoption</li> </ul>

<sup>21</sup> If an advisory standard states a way of preventing or managing exposure to a risk for a requirement in a food safety scheme, a program or management statement complies with the scheme for the requirement only by adopting and following—(a) a stated way in the standard for the requirement; or (b) another way for the requirement that gives the same or a higher level of protection against the risk. If the standard is a compulsory standard the business must comply with the requirements.

	<p>and monitoring of quality assurance programs.</p> <p><b>Meat Industry Regulations 2005</b>  The objectives of these Regulations are to-</p> <p>(a) provide standards, procedures and other requirements for the production of meat for human consumption and for pet food; and</p> <p>(b) provide for the licensing of meat transport vehicles.</p> <p>All meat processors must be licensed and must have a quality assurance program (Food safety plan) which is audited. Abattoirs must comply with the above legislation, the Food Act 1984, The Food Standards Code, AS4696, A guide to the Implementation and Auditing of HACCP and the Microbiological testing for Process Monitoring in the Meat Industry Stage 1 Guidelines. These are presumably attached as licensing conditions which is permitted under the Act. The regulations cover closure of premises, branding, a prohibition on selling horse and donkey meat for human consumption, requirements for pet food processing and meat transport vehicles.</p>
South Australia	<p><b>Primary Produce (Food Safety Schemes) Act 2004</b> establishes food safety schemes.</p> <p><b>Primary Produce (Food Safety Schemes) (Meat Industry) Regulations 2006</b> establishes the 'meat industry food safety scheme' for activities including carrying on the business of processing or handling meat;</p> <p>All meat processors must be accredited and must adopt an 'approved food safety arrangement'.</p> <p>Business must comply with AS 4696 (see Schedule 1)</p>
Tasmania	<p><b>Meat Hygiene Act 1985</b>  An Act to control and regulate the operation of meat premises and pet food works, to regulate the standards of hygiene and sanitation at those premises and works and to regulate the quality of meat, meat products, and pet food and for other purposes.</p> <p>The business requires a 'meat premises licence' to which conditions can be attached.</p> <p><b>Meat Hygiene Regulations 2003</b> lists the standards that apply to licensed meat premises including AS 4696. The business would need an approved arrangement to comply with AS 4696.</p>
WA	<p><b>Health Act 1911</b>- note there is now a Food Act 2008 parts of which have not come into effect.</p> <p><b>Health (Meat Hygiene ) Regulations 2001</b>  The Health (Meat Hygiene) Regulations 2001 includes various Australian Standards for the slaughter and further processing of food animals as part of the regulations. This includes AS 4696. The standards apply to cattle, sheep, pigs, deer, poultry, ratites, rabbits, crocodile, game meat etc. the operator of the abattoir must comply with the standards. The requirements in the meat legislation will be transferred to the new Food Act.</p> <p><b>The Western Australia Meat Industry Authority Act 1976 and Regulations 1985</b> requires WA processing premises to be approved by the Authority. It is an offence to sell meat that has been processed from non-approved premises.</p>
ACT	<p><b>Food Act 2001</b>  Commercial slaughtering of livestock for human consumption is excluded from the definition of primary production by the <b>Food Regulation 2002</b>. The businesses are therefore food businesses for the purpose of the Act. Food businesses must</p>

	<p>be registered and conditions may be attached to the registration. The Food Regulations contain requirements for businesses required to have food safety programs. It appears that the requirements for a food safety program would have to be in a standard in the Code as per the requirements for seafood and dairy. There is no reference to AS 4696 in the legislation. There is no abattoir in the ACT.</p>
NT	<p><b>Meat Industries Act 1996 and Meat Industries Regulations</b> The objects of this Act are – (a) to ensure that meat produced for human consumption is wholesome; (b) to ensure that pet meat produced for pet food or bait meat, is not substituted for meat produced for human consumption; (c) to ensure the humane slaughter of animals for human consumption, pet meat and bait meat; and etc The various Australian Standards for the meat industries are adopted under the Act by a ministerial gazettal. Abattoirs must be licensed and operate in accordance with AS 4696.</p>

**Table 9 Summary of State and Territory requirements for processing (abattoirs)**

<b>State</b>	<b>Summary</b>
NSW	Licensing and compliance with AS 4696 or another approved way.
Qld	Accreditation and compliance with scheme and approved arrangement (or management statement) and selected requirements of Standards 3.2.2 and 3.2.3. AS 4696 is an advisory standard.
Victoria	Licensing and compliance with QA program or food safety program and Food Act 1984, The Food Standards Code and AS 4696.
South Australia	Accreditation and compliance with approved arrangement and AS 4696
Tasmania	Licensing and compliance with AS 4696
WA	Licensing and compliance with AS 4696
ACT	No abattoir in the ACT but if so would be considered a food businesses as is excluded from the definition of primary production.
NT	NT abattoirs must be licensed and operate in accordance with AS 4696.

#### 5.1.4.1 Australian Standard for the Hygienic Production and Transportation of Meat and Meat Products for Human Consumption AS 4696-2007.

The prime objective of AS4696 is to ensure that meat and meat products for human consumption comply with food safety requirements and are wholesome. The term 'wholesome' is defined to mean that the meat and meat products:

- are not likely to cause food-borne illness or intoxication when properly stored, handled and prepared for their intended use;
- are free of obvious contamination;
- are free of defects that are generally recognised as objectionable to consumers;
- have been produced and transported under adequate hygiene and temperature controls;
- do not contain additives other than those permitted under the Code;
- have not been irradiated contrary to the Code; and
- have not been treated with a substance contrary to a law of the Commonwealth or a law of the State or Territory in which the treatment takes place.

AS 4696 includes secondary objectives so that wholesomeness can be assured. These objectives include the need for systems to be in place for the accurate identification, traceability, effective recall and integrity of meat and meat products. They also include animal welfare objectives as they impact on food safety and on public expectations as to wholesomeness.

The preface to AS4696 states that the Standard reflects the shared responsibility between industry and governments for food safety. Management and production practices underpin the Standard as do process controls based on the hazard analysis critical control point (HACCP) approach with its emphasis on risk assessment and risk management.

AS 4696 sets out the outcomes required for the receipt and slaughter of animals, the dressing of carcasses and the processing (including further processing), packaging, handling and storage of meat or meat products. It also includes requirements for construction of premises and transportation of meat and meat products. It applies to meat and meat products derived from bovine, buffalo, camels, goats, deer, pigs and sheep and horses slaughtered other than in a wild state.

In regard to receipt of animals and assurances that they are suitable for slaughter, States and Territories require evidence in the form of National Vendor Declarations or equivalent documentation to provide proof or assurance that the animals have been raised in accordance with good husbandry practices and are traceable. The specific requirements differ in the different jurisdictions. Industry QA programs such as the APIQ/PigPass program and LPA have been developed (and continue to be refined) to provide this assurance, initially for the export markets, but increasingly for domestic markets.

FSANZ has identified the requirements in AS 4696 that control hazards occurring during meat processing. These are described in the following Table.

**Table 10 Sections of AS4696 that include control measures identified for meat processing.**

<b>Step<sup>22</sup></b>	<b>General control measures</b>	<b>AS 4696</b>
Lairage	The cattle are sourced from cattle producers/saleyards that meet requirements as to the production and management practices that assure that diseased animals are not presented at the abattoir.	Part 3 Slaughter and dressing Section 6 The Supply and Admission of Animals for Slaughter - Source of supply.
	Animals are not slaughtered unless they have been passed as fit for slaughter (ie satisfies ante-mortem inspection).	Part 3 Slaughter and dressing Section 6 The Supply and Admission of Animals for Slaughter – Admission of Animals
	Animals that are dead before slaughter or are known or suspected of being diseased, injured or otherwise unfit or unsuitable for slaughter are identified as such, separated and kept separated until disposed of.(ante-mortem inspection)	Part 3 Slaughter and dressing Section 6 The Supply and Admission of Animals for Slaughter – Admission of Animals – (6.12)
	Animals are identifiable on admission so that if a problem is identified after receipt at the lairage, the animal can be identified and separated.	Part 3 Slaughter and dressing of animals Section 6 The supply and admission of animals for slaughter (6.1. and 6.2)
	Animals are not injured or stressed while in the lairage so as to make them unfit for slaughter.	Part 3 Slaughter and dressing of animals Section 7 Animal Welfare (7.1-7.8)
	There are cleaning and sanitation programs in place to ensure that lairages are maintained to an adequate level of cleanliness to prevent cross contamination of cattle.	Part 2 Wholesomeness and Operational Hygiene Section 4 Operational Hygiene – General and Cleaning and maintenance of premises and equipment
	Premises are provided with adequate facilities and suitable supplies of water to enable cleaning to take place.	Part 7 Premises, Equipment and Essential Services Section 20 Hygiene and Sanitation Facilities
	Access by animals e.g. dogs, horses, other than cattle is restricted.	Part 2 Wholesomeness and Operational Hygiene Section 4 Operational Hygiene – Animals
Assessment of animal cleanliness	Animals that are excessively dirty are not accepted for slaughter or are accepted subject to conditions that ensure they will not cause contamination of meat.	Part 3 Slaughter and Dressing of Animals Section 8 Ante-mortem inspection and disposition (8.5)

<sup>22</sup> These steps correspond with those identified in the flow charts and hazard identification tables in the Hazard Identification..

Step <sup>22</sup>	General control measures	AS 4696
Stunning and bleeding	<p>Stunning and bleeding are carried out in such a manner so as to avoid contamination of the slaughtering and processing environment and of the carcass.</p> <p>Adequate measures are taken during collection and disposal of blood which avoids it contaminating the environment and other carcasses</p>	<p>Part 3 Slaughter and Dressing of Animals Section 9 Slaughter and dressing</p> <p>Part 2 Wholesomeness and Operational Hygiene Section 5 Cross contamination and Part 3 Slaughter and Dressing of Animals Section 9 Slaughter and dressing (primary bleeding to be completed before dressing commences- 9.5,</p>
Carcass hide washing, legging, hide clearing and removing	<p>If necessary carcasses are washed post stunning and bleeding. Hides are removed in such a manner as to avoid, as far as practicable, contamination of the carcass and carcasses are kept separate to minimise the opportunities for cross contamination.</p>	<p>No specific requirement re washing. Carcasses are kept separate until passed fit by an inspector. (9.6) (see also 11.4 re carcasses and sides and quarters not coming into contact with each other)</p>
Bunging	<p>Discharge from the intestines, rectum etc is prevented</p>	<p>Part 3 Slaughter and Dressing of Animals Section 9 Slaughter and dressing (9.10)</p>
Evisceration	<p>Evisceration is carried out so as to prevent rupture or breakage of the internal organs.</p>	<p>Part 3 Slaughter and Dressing of Animals Section 9 Slaughter and dressing</p>
Trimming	<p>Evidence of faecal contamination, lesions etc that can be trimmed are removed from the carcass/parts. Trimming is carried out with clean and sanitised equipment.</p>	<p>Part 3 Slaughter and Dressing of Animals Section 9 Slaughter and dressing (9.18 and 9.19) AS4696 – see generic control measures</p>
Post mortem	<p>Carcasses (or parts) that are visibly affected by conditions that make them unfit for further processing are identified (through the post mortem inspection), segregated and disposed of.</p>	<p>Part 3 Slaughter and Dressing of Animals Section 10 Post-mortem inspection and disposition</p>
Storage	<p>Delays between dressing and further processing of the carcass are avoided to prevent growth of any spoilage organisms or pathogens on the carcass and to limit the opportunities for contamination.</p>	<p>Part 3 Slaughter and Dressing of Animals Section 9 Slaughter and dressing (9.4)</p>
	<p>Carcasses are rapidly chilled to temperatures that prevent the growth of pathogens as soon as processing, including any hot boning is completed.</p>	<p>Part 4 Processing Section 11 Chilling and Freezing</p>
	<p>Chilled carcasses in chillers are not adversely affected by the addition of warm carcasses (warming and condensation).</p>	<p>Part 4 Processing Section 11 Chilling and Freezing (11.5)</p>



Step <sup>22</sup>	General control measures	AS 4696
	Carcasses are kept separate from each other and from other surfaces to avoid cross contamination	Part 3 Slaughter and Dressing of Animals Section 9 Slaughter and dressing - carcasses are kept separate until passed fit by an inspector. (9.6) (see also 11.4 re carcasses and sides and quarters not coming into contact with each other)

#### 5.1.4.2 Requirements in AS 4696 for 'approved arrangements'

Meat businesses are required to develop and implement 'approved arrangements'. These are systems based on HACCP principles, approved by the regulatory authority, to ensure the production of wholesome product.

The requirements for the arrangements are specified in Part 2 Section 3 of AS 4696.

Summarised, the arrangement must:

- cover each stage of the production of all meat and meat products produced by the business at the premises at which the meat and meat products are produced;
- contains controls to ensure meat and meat products for human consumption are wholesome and accurately identified and meat and meat products unfit or not intended for human consumption are removed from the food chain and dealt with separately from meat and meat products for human consumption;
- specifies how each of the matters specified in this Standard will be met; and
- provides for the implementation of a HACCP plan for each stage of the production at the premises.

The arrangement must also include:

- the policy objectives of the meat business and the organisational structure, the provision of resources and the provision and training;
- verification system;
- corrective actions;
- internal audits and management reviews;
- surveillance, sampling, monitoring and testing programs; and
- systems to control notifiable diseases including traceback.

## **5.2 Industry**

There is guidance to processors mainly on meeting welfare standards for example, the *National Animal Welfare Standards at Livestock Processing Establishments*<sup>23</sup> produced by the Australian Meat Industry Council (AMIC) and the Victorian Government. There is also a Model Code of Practice for the Welfare of Animals – Livestock at Slaughtering Establishments.<sup>24</sup>

## **6. Supporting measures - Skills and knowledge**

### **6.1 Regulatory**

#### *6.1.1 Australia New Zealand Food Standard Code*

The Code does not contain requirements for training or for skills and knowledge for person working on livestock properties except in relation to dairy farming under Standard 4.2.4. This latter requirement is in regard to milk production.

Standard 3.2.2 requires food handlers and their supervisors to have skills and knowledge in food hygiene and food safety matters. This would apply to abattoir workers and meat

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<sup>23</sup> AMIC 2005, *National Animal Welfare Standards at Livestock Processing Establishments Preparing Meat for Human Consumption*, [www.amic.org.au](http://www.amic.org.au)

<sup>24</sup> CSIRO 2002, *Model Code of Practice for the Welfare of Animals – Livestock at Slaughtering Establishments* SCARM Report 79

processors.

### 6.1.2 State and Territory legislation

There does not appear to be any requirements in legislation for producers to be trained in food safety aspects of raising livestock.

Compliance with AS 4696 requires the meat processor to document the training of personnel and ensure that training is appropriate to the work being carried out. There are specific obligations in relation to ensuring meat handlers are informed of the personal hygiene and health requirements.

## 6.2 Industry

### 6.2.1 Primary Production

Training is an important component of the industry quality/safety assurance programs. Also, the industry associations are active in providing training programs for livestock production for example, Australian Pork Limited has an extensive list of training materials and publications. Several publications relate to ensuring the health of pigs.

LPA- QA has an element on training. The outcome specifies that on-farms systems have been implemented that enable staff to be adequately trained to ensure they have the appropriate skills and knowledge to competently perform the duties required of them by the LPA program.

The NSQA program includes staff training as necessary to support the program (in addition to training on the program itself) and there is a section on training and staff competency in the *Australian Code of Practice for the Selling of Livestock*. Other programs may also include training.

The Edge Network program, a concept jointly owned by MLA and the Department of Primary Industries Victoria, is a national program for training farm workers in animal welfare, food safety and sustainable grazing systems.

AgriFood Skills Australia (formerly the Agri-Food Industry Skills Council) is a public company limited by guarantee with an industry-led board of nine directors and five industry standing committees. The council's funding principally is provided by the Australian Government through the Department of Education, Employment and Workplace Relations. The council was established in May 2004 as one of 11 Industry Skills Councils established to provide accurate industry intelligence on current and future skill needs and training requirements. Its purpose includes actively supporting the development, implementation and continuous improvement of high quality training and workforce development products and services, including training packages.

Agri-Food training packages are used by Registered Training Organisations to deliver industry skills and qualifications. Training packages for primary production include animal care and management.

ChemCert Ltd is a non-profit, limited liability, industry owned and operated company established in September 1999 as the peak body for the training and accreditation of ag/vet and related chemical users in NSW. ChemCert provides training resources to accredited instructors and Registered Training Organisations (RTOs) for the delivery of the national farm chemical competency standards as defined in the agricultural & horticultural training packages. ChemCert also provides instructor training to experienced industry personnel.

ChemCert Ltd is a member of, and is accountable to ChemCert Australia for the delivery of the national *ChemCert* Accreditation Program and suite of specialists re-accreditation modules<sup>25</sup>.

### 6.2.2 Processing

The national Meat Industry Training Advisory Council, MINTRAC, is responsible for formal training in the meat processing industry. MINTRAC is a company, owned by the meat industry, which represents the industry on training matters. Its role is to improve the skills of workers in the red meat, pork and game industry through the provision of recognised and accredited training from entry level through to senior management. MINTRAC does not provide training but works with Registered Training Organisations to facilitate training. MINTRAC services the three sectors of the meat industry, processing (abattoirs and boning rooms), smallgoods and meat retailing.

MINTRAC works with the industry to provide the following services:

- the development and review of National Qualifications and training framework;
- the development and review of National Training Packages;
- the development of training and assessment materials to support the Training Packages;
- the implementation of training in the industry; and
- the representation of meat industry training interests at a State and Federal level.<sup>26</sup>

MINTRAC is wholly funded for its operations by the meat industry through red-meat processor levies, collected and distributed by the Australian Meat Processors Corporation (AMPC). In addition MINTRAC undertakes a wide variety of projects, some of which are funded from research and development funds administered by Meat and Livestock Australia and matched dollar for dollar by AMPC. Other projects are wholly funded from a variety of sources, such as State and Federal education and training authorities, or targeted industry projects.

Agri-Food Skills Australia also provides training packages for meat processing through the Australian Meat Industry Training Packages.

## 7. Supporting measures – Traceability

Traceability systems involve branding, animal tags or rumen boluses used in conjunction with either a paper based system or electronically stored information to accompany or record the movement of animals (or mob or herd). Individual animal identification and the accompanying documentation are considered separately below.

### 7.1 Primary production- Regulatory and industry requirements

#### 7.1.1. Australia New Zealand Food Standards Code

Standard 4.2.4 Primary production and Processing Standard for Dairy Products, requires dairy businesses to have a system for tracing animals to be milked. The Standard is not specific as to the type of tracing system. There are no requirements for meat animals.

#### 7.1.2 State and Territory legislation

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<sup>25</sup> website [www.chemcert.com.au](http://www.chemcert.com.au)

<sup>26</sup> Information from the MINTRAC website [www.mintrac.com.au](http://www.mintrac.com.au) July 2009

Legislation to control use of brands and other identification system has been in place for many years aimed at preventing fraud and to ensure that an animal could be traced back to its owner.

Since the 1960s a mandatory tagging system known as the Property Identification Code (PIC) has been used throughout Australia based on a unique identification code assigned to each farm or parcel of land. The PIC identifies the State, region and location of the property. The intention is that animals are tagged (visual or electronic including rumen boluses) with this number prior to leaving the property of birth. Animal/property identification is mandated in legislation and State governments are progressively extending the scope of the animals that must be identified. Industry/government partnerships are promoting identification systems particularly electronic traceability systems which record information about the animal not only for traceability but also to provide a history of the husbandry the animal has received.

**Table 11 Legislation requiring identification of animals and recording stock movements**

<b>State or Territory</b>	<b>Legislation</b>
New South Wales	Stock Diseases Act 1923 <sup>27</sup> Stock Diseases Regulations 2004
South Australia	Livestock Act 1997 Livestock Regulations 1998 Part 6 Livestock Identification
Queensland	Stock Act 1915 Stock Identification Regulations 2005
Victoria	Livestock Disease Control Act 1994 part 2 Division 1 (sections 9 and 9A) Livestock Disease Control Regulations 2006 Part 3 Identification of Livestock
Tasmania	Animal (Brands and Movement) Act 1984 Part IVA Permanent identification devices Animal (Brands and Movement) Regulations 2003
Western Australia	<sup>28</sup> Stock (Identification and Movement) Act 1970 and Regulations Stock Diseases (Regulations) Act 1968 and the Enzootic Diseases Regulations 1968 Part 8A Cattle or buffalo identification.
ACT	Animal Diseases Act 2005 Animal Diseases Regulations 2006 Part 2 Identification of stock
NT	Stock Diseases Act Stock Diseases Regulations

### 7.1.3 Animal identification – beef and dairy cattle

Cattle are identified through the National Livestock Identification System. The NLIS is a State based system based on a nationally accepted system. It depends on a 'whole of life' electronic tag and a centralised national data base. It has been available to beef producers

<sup>27</sup> See also The Stock Medicines Act 1989 section 46

<sup>28</sup> Currently under two sets of legislation which will be consolidated as a result of the Biosecurity and Agriculture Management Act 2007 and Biosecurity and Agriculture Management (Repeal and Consequential Provisions ) Act 2007

on a voluntary basis since January 1997<sup>29</sup> and has been implemented by State and Territory legislation since 1 July 2005 to apply to the range of types of cattle, for example, in NSW all cattle owners are required to participate in the NLIS. All cattle have to be identified with an NLIS device before they leave the property and all cattle coming from interstate must be identified with an NLIS device. The device must remain on the animal and should not be reused without approval.

The NLIS device has an electronic number unique to that device (so each animal has a separate electronic identifier) and a visual number which includes the PIC and a unique serial number for the animal. For a rumen bolus there is a matching visual tag. These numbers link to the NLIS database. It works with the PIC and the NVD (National Vendor Declaration) to ensure traceability to the back door of the abattoir and through processing.

#### *7.1.4 Animal identification - sheep and goats*

The NLIS for sheep and goats was introduced on 1 January 2006. From 1 January 2007 in Queensland and 1 January 2009 in other States and Territories, all sheep and farmed goats must be identified with an NLIS tag prior to movement i.e. leaving their property of birth. The tag is a visually readable ear tag printed with the PIC. Electronic tags can also be used. Tags that meet the NLIS standards have the NLIS logo printed on them. The ear tag stays with the animal for life and must not be reused without approval. The only goats exempted are dairy goat breeds and wild –caught (feral) goats consigned directly for slaughter (unmanaged feral goats). The combination of tags and movement documents provides for mob-based identification.

#### *7.1.5 Animal identification - pigs*

The pork industry is developing the PigPass system – a pork supply integrity system under the NLIS (Pork) Project to assist the industry in meeting traceability best practice. A NLIS (Pork) system for pigs is not mandatory yet. However, pigs are required to be individually identified with brands for example, in NSW pigs must have a swine brand which identifies the property of production and in Victoria all pigs being consigned for sale to an abattoir must be identified by either a tattoo, brand or ear tag, depending on bodyweight, before they leave their property of origin. States are increasingly requiring PigPass as the preferred NVD for pigs for slaughter.

#### *7.1.6 Accompanying documentation*

The animal identification system works in combination with an electronic or paper trail which follows animal movement through their lifetime. A movement document must accompany animals moving from one property to another, to a saleyard or to an abattoir. The types of documents and the exemptions vary from State to State with governments and industry moving to 'nationalise' arrangements and minimise the number of documents. For example, in Queensland the Stock Act 1915 requires animals including cattle, sheep goats and pigs, to be accompanied by a waybill or an equivalent document. These must be completed by the owner or authorised agent of the origin of the stock. They describe the species, age, type of animal etc. Some movements of animal also require a travel or stock permit or a health certificate for example, for diseased stock or stock travelling to interstate destinations.

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<sup>29</sup> FSANZ, *Food Safety Controls in the Australian Meat Industry* 2008. Report prepared for FSANZ by SafeFood Queensland 2008 (unpublished)

The National Vendor Declaration system for cattle, sheep and goats has been developed by the industry as part of the NLIS to facilitate the documentation of the history of chemical use and treatment of animals offered for sale. It is not compulsory but when combined with the waybill and health certificates satisfies the legal requirements for animal movement and saves duplication of information and forms. Although the NVDs are not compulsory, it is an offence to give false information on any documentation accompanying the animals.

For the pork industry, the PigPass National Vendor Declaration (part of the Pork Supply Chain Integrity System) is a producer declaration addressing food safety and product integrity risks. It contains the information that enables traceback of pigs to the property of origin in the event of a problem. It initially only applied to the export supply chain but is now accepted and required in some States.

The information on the animal plus information in the documentation must be entered into electronic data bases. States publish various guidance documents on the obligations on producers, saleyard operators and processors in entering information for example, Code for the Operation of the NLIS in Victoria, Department of Primary Industries May 2007.

Industry assurance programs also include requirements for traceability for example, the National Feedlot Accreditation Scheme requires a stock identification system implemented on the property including maintenance of appropriate management records and traceability of stock on the property and when dispatched from the property. The purpose of this is to maintain the integrity of product described as grain fed and to prevent contaminated or treated animals unknowingly being sold for human consumption prior to expiry of the withholding period or Export Slaughter Interval.

## **7.2 Processing**

AS 4696 requires meat businesses to have a documented system that provides for the accurate identification of, and the ability to trace and recall, meat and meat products produced by the business. This imposes stringent requirements on the abattoir businesses to ensure identification of animals before they can be accepted for slaughter.

AS 4696 requires animals other than sheep and goats (for the major species) must be from a holding that has a system in place to identify each animal. For sheep and goats the identification may be on a consignment basis and may be either the place of production or the saleyard. The abattoir must have a system to continue this identification through processing and inspection to boning and packing.

Table 12 Through chain traceability of cattle

	<b>Supply to abattoir (including saleyard)</b>	<b>Receipt at abattoir</b>	<b>Slaughter, dressing and passed fit at post mortem inspection</b>	<b>Boning and packaging</b>
<b>Live animal</b>	Identification as per legislation in above table	Identification of the place of production or if captured in the wild- where captured <sup>30</sup>		
<b>Carcass</b>			Carcass tag <sup>31</sup> with identification <sup>32</sup>	
<b>Parts</b>			Carcass parts are correlated with carcass <sup>33</sup>	
<b>Meat and meat products</b>				Information to achieve a recall; based on business, batch <sup>34</sup> , date of processing, date of consignment and consignee <sup>35</sup>

<sup>30</sup> AS 4696 6.6(b)

<sup>31</sup> Note electronic system – EAN

<sup>32</sup> AS 4696 6.13 Place of production and information about condition, treatment, exposure and slaughter necessary to assess wholesomeness can be ascertained

<sup>33</sup> AS 4696 6.13 and 10.10

<sup>34</sup> 'Batch' is defines as an identifiable quantity of a commodity produced under essentially the same conditions and during the same time period not exceeding 24 hours.

<sup>35</sup> As 4696 16.4 the outcome of section 16 is achieving recall. States may have additional provisions for traceability over recall as part of traceability components of food safety plan see Primesafe Licensing Information on website.