Industry Government Working Group on Live Sheep and Goat Exports

Final Report to Australian Government Minister for Agriculture, Fisheries and Forestry

26 August 2011

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Summary and Findings

On 13 July 2011 the Industry Government Working Group on Live Sheep and Goat Exports (IGWG) was tasked by the Minister for Agriculture, Fisheries and Forestry, Senator the Hon. Joe Ludwig, to report to him on: areas of immediate concern regarding animal welfare for live sheep and goat exports and actions to address them; a supply chain assurance scheme for live sheep and goats meeting a number of key principles; a process for implementing this scheme; and any impacts and adjustment responses to the scheme. The IGWG was also asked to provide advice to governments and industry, as appropriate, on issues relating to sheep and goat exports.

As required, the IGWG provided an interim report to the Minister on 31 July that included a finding around addressing immediate animal welfare concerns: *It would be appropriate to encourage industry to continue and to strengthen their efforts to significantly limit private sales in importing markets in advance of more formal regulatory arrangements being established. This should also be complemented by continued awareness raising activities of Australian officials with key government officials in overseas markets as discussed below.* This finding has been actioned through the IGWG and in the context of meetings with government officials from overseas markets. This approach is also reaffirmed in this final report as a transitional measure to the proposed new regulatory framework.

This final report also proposes a new supply chain assurance scheme for regulating the export of sheep and goats which is based around the following four principles:

1. meets World Organisation for Animal Health (OIE) standards for animal welfare;
2. enables animals to be effectively traced or accounted for by exporters within a supply chain through to slaughter;
3. has appropriate reporting and accountability; and
4. is independently verified and audited.

Of fundamental importance, the proposed framework would require that animals could only be exported into independently audited supply chains that meet OIE requirements for animal welfare.

There are a number of proposed requirements which will provide a level of confidence that animals would remain within these approved supply chains and that the handling of animals within these supply chains remains appropriate. These requirements have been developed with recognition of the specific characteristics of the sheep and goat industry in Australia, commercial factors in trading markets and international trade obligations.

Specifically, in the immediate future it has been recognised that there is no national system in place for the unique identification of individual sheep and goats, and that the establishment of such a system for exported animals alone could create issues. The proposed framework is therefore based around the existing National Livestock Identification System (Sheep and Goats), combined with an accounting system for animals involving reconciliation of animal numbers from the vessel, through feedlots/holding facilities and abattoirs/slaughter facilities. This system of accounting and reconciliation would be verified by the independent auditor who would have access to records throughout the supply chain. Results from the audits will be provided to the Department of Agriculture, Fisheries and Forestry (DAFF) and the outcomes made publicly available.

It may be possible to move to unique individual animal traceability for exported animals over time on a voluntary basis with industry or as part of any future national system.

The system of independent auditing proposed for sheep and goats is based on regular auditing of supply chains – initially for a new proposed supply chain, followed by frequent audits (for example, every two months) for the first six months of a new supply chain, and then at a frequency determined by a risk-based approach involving a minimum of three audits per year, with two of these to occur at periods of highest risk during the festival periods (where relevant).

As Australia cannot regulate in other sovereign nations, the regulatory approach will be applied to exporters who will be held responsible for the performance of the supply chain.

The report addresses the importance of the live export trade in sheep and goats for Australian farmers and for the domestic economy, particularly at a regional level. It recognises that the trade has benefits for a wide range of supporting and other related industries. Trade in live animals also provides an important source of protein for many of Australia's trading partners and assists them in achieving their development and food security objectives. This analysis emphasises the importance of a transition to the new framework that minimises unnecessary disruption to supply chains.

It is proposed that there be a managed transition to the new approach which takes account of moving to the new framework for markets that receive the largest number of animals first, with small markets transitioning over a longer period of time. This also needs to take into consideration the likely parallel adoption of a new regulatory framework for cattle which affects some common markets and exporters. Further, there are practical considerations around rolling out a substantial new approach to the live animal trade which will be unfamiliar to our trading partners and which will apply across a large numbers of markets and across different species of animals.

As mentioned above, given the time needed to implement the regulatory framework in all markets, early action will be needed to address any perceived immediate animal welfare risks. There has been particular focus on the issue of private sales, but where significant issues around particular supply chains are identified, these should also be addressed in advance of the new arrangements where possible. The IGWG proposes there is a need for action by industry and government during the transition period to the new regulatory framework, as outlined in Finding 3.

Key findings of the IGWG are provided in the summary table below.

1.1 Summary Table: Key Findings of the IGWG on Live Sheep and Goat Exports

Finding 1: The IGWG proposes that a new regulatory framework for live sheep and goat exports be based around the following elements:

- the Australian Government will apply regulation to Australian exporters;
- animals must be exported only through approved supply chains that have been assessed by independent auditors as meeting OIE requirements;
- the exporter must provide evidence demonstrating supply chain control from point of unloading of the vessel to the point of slaughter;
- a process of animal accountability must be in place throughout the supply chain, including at the point of unloading, at the feedlot/holding facility, at the abattoir/slaughter facility and at other defined intermediate stages of the supply chain (such as other feedlots) with data retained for each point that can be audited and reconciled by the independent auditor;
- independent audits must be undertaken before the first consignment into a new exporter supply chain, followed by frequent audits (for example, every two months) for the first six months of a new supply chain, and then at a frequency determined by a risk-based approach involving a minimum of three audits per year (this should include audits at peak periods during festivals for countries where relevant); and
- outcomes of audit reports will be published regularly.

Details of the proposed framework are provided in Attachments C and D of this report.

Finding 2: The IGWG proposes that the schedule for transition to the new regulatory framework be based around:

- sequencing of markets based on size of the trade to those markets; and
- timing based on a combination of practical considerations (what's able to be done) and sensitivities to market considerations.

Finding 3: The IGWG proposes that in order to address immediate risks prior to the implementation of the new regulatory framework:

- industry and government continue to strengthen their efforts to significantly limit private sales in importing markets;
- industry take action to prevent sales of animals through supply chains that involve facilities that are known to fall well below OIE requirements; and
- Australian officials increase their activities with government officials in key overseas markets.

Introduction

1.2 Role of the Industry Government Working Group on Live Sheep and Goat Exports

On 13 July 2011, the Federal Minister for Agriculture, Fisheries and Forestry, Senator the Hon. Joe Ludwig, announced the establishment of an Industry Government Working Group on Live Sheep and Goat Exports (IGWG) to develop a supply chain assurance system that meets the four basic principles the Government has developed to reform livestock exports. The four principles are that the live export trade:

a. meets OIE standards for animal welfare;
b. enables animals to be effectively traced or accounted for by exporters within a supply chain through to slaughter;
c. has appropriate reporting and accountability; and
d. is independently verified and audited.

The IGWG was also tasked to report on areas of immediate concern regarding animal welfare for live sheep and goat exports and actions to address them; a process for implementing the proposed supply chain assurance scheme; and any impacts and adjustment responses to the scheme. The IGWG was asked to provide advice to governments and industry, as appropriate, on issues relating to sheep and goat exports. The terms of reference for the IGWG are at Attachment A.

The IGWG consisted of representatives of livestock industries, major live sheep and goat exporters and Commonwealth, state and territory governments. A list of the members of the IGWG is at Attachment B.

As required, the IGWG provided an interim report to the Minister on 31 July 2011. This current report is the final report of the IGWG, requested to be provided by 26 August 2011.

1.3 Overview of Australia's Live Sheep and Goat Export Industries

The Australian live animal export industry is a valuable component of Australia's red meat industry, and supports approximately 10,000 jobs, many in rural and regional Australia. According to the Australian Bureau of Statistics, in 2010, sheep and goat exports accounted for 32 per cent
($333 million) of Australian live animal exports in value terms.

- Most live sheep exported from Australia are destined for markets in the Middle East, especially in the Arabian Gulf. In 2010, Australia exported 2.8 million sheep to markets in the Middle East, valued at $307 million.
- Malaysia is Australia's largest market for live goat exports, accounting for 83 per cent of the total volume exported in 2010, followed by Singapore and the Philippines. In 2010, Australia exported 77,414 goats, valued at $10.3 million.
- More than 72 per cent of live sheep exports are loaded onto ships in Western Australia, with 21 per cent and 7 per cent of shipments exported from Victoria and South Australia respectively.

- For goats, 30 per cent are exported from South Australia, 21 per cent from Queensland, 19 per cent from Victoria and 18 per cent from New South Wales. From 2008 to 2010, 98 per cent of goat exports travelled by air.

1.3.1 Supply Chain and Demand

The livestock export industry value chain is complex and relatively long, and can engage up to 30 separate business types, although the number of exporters is small. The businesses involved are often specific to the live export industry or generate the vast majority of their revenues from live export activity. The live sheep and goat export industries are generally focussed on particular regions and, as a result, the value of the industry to these regional and rural communities is significant.

The live animal trade has wider benefits for a range of agriculture industries and services in the Australian economy, such as feed and other input producers / traders, veterinary specialists, transport industries, feedlot consultants, and commodity trading firms. The interrelated nature of agriculture and services is particularly important in regional areas where they comprise a high proportion of local economic activity. A change in the volume of live exports will have a wider impact on these industries.

Australia's live sheep and goat exports are also of critical value to trading partners in the Middle East and South East Asia. Australian sheep constitute 50 per cent of Middle East imports of live sheep, and in six markets, notably Bahrain, Israel, Jordan, Kuwait, Oman and Qatar, more than 90 per cent of live sheep imports come from Australia. In Malaysia, over 85 per cent of goat meat consumed within the market is derived from Australian exported goats. Australian live sheep and goat exports play an important role in many of these markets by meeting domestic demand for animal protein and thus assisting in the achievement of food security.

While meat trade with many of our live export markets has been growing, there remains a strong and important place for the export of live animals. Rising affluence, especially in the Middle East and in parts of South East Asia, will likely see increasing consumption of meat products – with this trade being serviced by both imports of live animals and by boxed meat.

Limitations of supply of live animals from Australia could have important consequences for food security in some countries. A number of factors contribute to this reliance on imports from Australia, including Australia's preferable animal disease status in comparison to other import sources, the level of investment in supply chain arrangements for Australian livestock and the insufficient or variable local and regional supply of livestock.

While the regulatory framework developed here is limited to animals exported for feeding and slaughter, in some markets the supply of Australian livestock for breeding is an essential component of economic development of their animal industries. Australia's favourable animal health status relative to many countries means that breeding livestock from Australia are keenly sought.

1.3.2 Current Situation

It is recognised that there is no current requirement for sheep and goats being exported from Australia to be handled and slaughtered through supply chains that meet internationally accepted requirements of the World Organisation for Animal Health (OIE). It is known that a

wide variety of practices are used in other countries, some of which may not meet these requirements. It is acknowledged that efforts have been made by industry and by the Australian Government to improve standards in these countries toward international benchmarks, but that the expectation of the Australian public is now that these benchmarks be achieved for Australian livestock being exported for feeding and slaughter overseas. In particular, there has been a strong reaction by the Australian public to evidence of poor animal welfare practices in overseas markets and this has established an imperative for a new approach to management of post-arrival animal welfare in markets for Australian livestock.

1.4 International Legal Considerations

In applying any new regulatory framework to the export of Australian live animals it is important that this be done in a manner which is consistent with Australia's international trade obligations. Export restrictions are generally not permitted under the World Trade Organization (WTO) but there are some exemptions to this general rule. Of relevance here are provisions that enable Australia to apply measures that are necessary to protect Australian public morals or the health of Australian animals. It is also important that Australia not discriminate in the application of these standards across countries, that it apply the least trade restrictive measures necessary to meet the required standards and it not apply measures that exceed those which are applicable domestically. With this in mind, it is important that the proposed framework be based around internationally agreed standards (as opposed to Australian standards) and that the measures applied do not exceed those that are in place in Australia. The IGWG has taken this into consideration in developing the proposed framework.

Export Supply Chain Regulatory Framework

1.5 Overview

The terms of reference seek that the IGWG establishes a proposed supply chain assurance scheme for live sheep and goat exports that:

a. meets OIE standards for animal welfare;
b. enables animals to be effectively traced or accounted for by exporters within a supply chain through to slaughter;
c. has appropriate reporting and accountability; and
d. is independently verified and audited.

The proposed framework seeks to ensure that all Australian live sheep and goat exports are processed in supply chains that provide confidence that they will be handled and slaughtered in a manner consistent with the requirements of the OIE – as identified in the first principle above. The other three principles are directed at assurance that animals remain within the supply chain and that there is appropriate accountability and transparency around the process.

The key elements of the proposed supply chain for sheep and goats exported from Australia are outlined in Finding 1 below. The following sections discuss these arrangements in more detail with the full proposed framework provided in Attachment C.

Finding 1: The IGWG proposes that a new regulatory framework for live sheep and goat exports be based around the following elements:

- the Australian Government will apply regulation to Australian exporters;
- animals must be exported only through approved supply chains that have been assessed by independent auditors as meeting OIE requirements;
- the exporter must provide evidence demonstrating supply chain control from point of unloading of the vessel to the point of slaughter;
- a process of animal accountability must be in place throughout the supply chain, including at the point of unloading, at the feedlot/holding facility, at the abattoir/slaughter facility and at other defined intermediate stages of the supply chain (such as other feedlots) with data retained for each point that can be audited and reconciled by the independent auditor;
- independent audits must be undertaken before the first consignment into a new exporter supply chain, followed by frequent audits (for example, every two months) for the first six months of a new supply chain, and then at a frequency determined by a risk-based approach involving a minimum of three audits per year (this should include audits at peak periods during festivals for countries where relevant); and
- outcomes of audit reports will be published regularly.

Animal Welfare Requirements

Under the proposed framework, all elements of an export supply chain must meet, at a minimum, the requirements established by all members of the OIE as described in the World Organisation for Animal Health Terrestrial Animal Health Code (2010). Guidance around the interpretation of the OIE animal welfare requirements, including performance indicators and targets, is provided at Attachment D - "Guidance on meeting OIE Code animal welfare outcomes".

The guidance prepared by the IGWG is to assist Australian exporters of live animals, as well as the importers, transporters, feedlotters and processors of these animals, in meeting OIE animal welfare requirements. The guidance is also intended to assist independent third party auditors in undertaking their assessments of the supply chain. The guidance is structured to cover common stages in the journey of slaughter or feeder livestock from disembarkation to processing in the country of destination.

For each supply chain element from disembarkation to processing, the desired animal welfare outcomes have been identified, drawn from the OIE Code. To consistently meet these animal welfare outcomes, a performance checklist was developed drawing out the key performance indicators contributing to that animal welfare outcome.

Performance against these requirements is to be independently audited. To this end, performance measures and targets have been proposed for each performance element. The targets proposed have been drawn from international practice and industry experience. It is anticipated that these will be refined with experience in using and auditing against these animal welfare requirements.

Supply Chain Assurance

1.5.1 Regulation of exporters

As Australia cannot regulate entities in other sovereign nations it is important that any new regulatory framework is applied to Australian exporters. As such, the accountability for performance of the system, including any non-conformity in the supply chain, will be the responsibility of the Australian exporter. It is recognised that because of the nature of the system for accounting for animals proposed in this report (see below), that it will not be possible to link animals in the supply chain to a specific exporter where there is more than one exporter supplying a supply chain. In this case it will be necessary to apply any remedial or other compliance measures across all exporters supplying animals to the non-conforming supply chain. Remedies or compliance measures would be applied at a level and as appropriate to the non-conformity identified.

1.5.2 Approved supply chains

Exporters will be required to specify the supply chain to which they will be supplying animals. These supply chains will need to be audited by an independent auditor against the "Guidance on meeting OIE Code animal welfare outcomes" (Attachment D).

1.5.3 Control of the supply chain

The exporter must obtain and provide evidence of supply chain control from the point of unloading of the vessel to the point of slaughter. This control does not necessitate ownership of the supply chain by the exporter, but could be achieved through commercial contracts with importers and other businesses involved in the supply chain. This is important in ensuring that there is a commitment by all parties that animals will remain within the approved supply chain and that other conditions around the export of animals are met.

1.5.4 Accounting for animals

There is presently no national system that uniquely identifies individual sheep and goats in Australia. The current absence of a unique identification system for sheep and goats raises both practical and legal issues around the compulsory establishment of such a system for exported animals.

In practical terms, establishing a system of individual animal identification for exported sheep and goats in the absence of an existing domestic system to build from could be challenging. This is largely due to the volumes of sheep and the fact that individual electronic identification would be a new requirement for the sheep industry. It is recognised that there are developments with individual electronic tagging that could make this practical and affordable in the future, although there would be a need for significant investment in appropriate readers, supporting equipment and training across markets to roll out this system in our overseas markets.

As mentioned previously, there are some limitations under the WTO on the imposition of restrictions on exports. It is possible that the compulsory imposition of a measure, such as a system of unique identification of individual animals on exports that is not required for domestic producers could create an inconsistency with the WTO rules.

In view of these practical and legal issues there is a need to consider other means to ensure that animals remain within the approved supply chain and to avoid unnecessary delays in adopting the proposed regulatory framework.

The implementation of an accountability system for sheep and goats is based on the following core principles:

- Animals will have an ear tag in accordance with the Australian National Livestock Identification System (Sheep and Goats). The ear tag functions to identify an animal in an overseas country as an Australian-origin animal.
- On arrival in the overseas country, animals will enter a supply chain and may be mixed with other consignments of animals exported from Australia.
- Australian origin animals will be kept separate from non Australian origin animals in the supply chain feedlot/holding facility and abattoirs/slaughter facilities.
- The system must be auditable, with the physical location of animals reconcilable against records throughout the system. The exporter must be able to demonstrate to the independent auditor that appropriate evidence exists for all livestock transactions and movements that provide sufficient detail (company name, location address etc) to demonstrate that the animal movement has occurred within the approved supply chain.

- The auditor must be able to compare records at different points in the system to enable a reconciliation of data to assist in identification of "leakage" of animals from the approved supply chain.
- The exporter must organise for an independent auditor report on the traceability system (and animal welfare and control aspects) of the supply chain in accordance with the schedule of auditing.

The IGWG believes that this system would provide a level of accounting for sheep that would reduce the risk of "leakage" of animals from the approved supply chain as well as identifying leakage that occurs.

It may be possible, in the future, to move to a system of unique identification of animals. This could be done on a voluntary basis initially by exporters, but could eventually be incorporated as part of any national system of unique individual animal identification, should such a system be adopted. There is presently consideration of a national sheep identification system by the Primary Industries Ministerial Council, with a reference date of 2014. It is therefore likely to be some time before such a system would be adopted across all exports of live animals.

Auditing and verification

The controlled supply chain assurance system must be audited by an independent, suitably qualified auditor. The audit is to assess if the supply chain meets the "Guidance on meeting OIE Code animal welfare outcomes" (as in Attachment D) and that appropriate control and traceability or accounting for animals exists.

The auditor must be independent, have no conflicts of interest and possess an appropriate level of competence and expertise (through qualifications and experience). The specific requirements of the independent auditor are explained in Attachment C.

The rigor of the regulatory framework will be underpinned by this audit. The role of the independent auditor is to ensure full compliance with the supply chain assurance system. Prior to the first export of animals into a new exporter supply chain a formal independent audit report will confirm the approval of the supply chain demonstrating compliance of the system. From there, the system of independent auditing proposed is based on regular auditing of supply chains – initially on a frequent basis (for example, every two months) for the first six months and then at a frequency determined by a risk-based approach involving a minimum of three audits per year, with two of these to occur at periods of highest risk during the festival periods.

Transparency and reporting

The auditor will provide compliance reports back to the importer and exporter confirming the supply chain is operating within its agreed scope, detailing any non-conformities and remedial action. An audit summary report will be provided to the Australian regulator.

Exporters have indicated that records kept throughout the supply chain and subject to 3rd party independent audit will contain some commercially sensitive information that some foreign businesses will be reluctant to provide to exporters or to the Australian Government. However, such information will be available to independent auditors as part of their assessment and the Australian Government would receive reports of non-conformities against the "Guidance on meeting OIE Code animal welfare outcomes" (Attachment D). This should provide sufficient

assurance that the system is operating in accordance with requirements. Results from the audits will be provided to the Australian Government and outcomes will be made publicly available taking into account any legitimate commercial sensitivities.

Variations to approved arrangements

When an exporter wishes to vary an approved exporter supply chain assurance system to use a facility that has not yet been independently audited and subsequently approved by DAFF, the exporter may seek approval from DAFF in writing, as specified in Attachment C. In order to ensure animals can readily move to alternative facilities it is preferable, where possible, for the exporter to nominate the available approved facilities within a market at the Notice of Intention (NOI) to export submission stage. Multiple approved facilities can be nominated on the NOI as part of the exporter's supply chain and no further approval would be required to use these facilities. Assurance that the animals remained within approved facilities throughout the chain will be obtained by the independent audit function.

Implementation of the Regulatory Framework

1.6 International Trade Issues and Impacts

1.7 Bilateral trade relations

The Australian Government has no power to regulate in other sovereign nations. The Australian Government would be applying any new regulatory framework only to Australian exporters. However the new arrangements will clearly have an effect on supply chains in other countries. While there is no need for foreign governments to change their regulations, nor to do anything to facilitate the changed arrangements, it remains crucial to work with overseas governments to raise awareness of what the Australian Government is pursuing and to seek their support. This is particularly important in those markets that are either key markets for Australian exports or depend on Australian imports for food security.

All countries presently receiving Australian livestock are members of the OIE, which promotes the efforts of its regional commissions to assist members to implement the OIE's animal welfare requirements within their territories. This provides an international platform through which Australia is already engaged with some of its trading partners and through which Australia could engender support for, as well as promote, joint work.

Discussions with overseas posts and embassies of foreign governments in Australia have been underway since exports of live cattle to Indonesia were temporarily suspended. Government delegations have visited several key markets in the Middle East and South East Asia and met with relevant ministries (agriculture, trade, foreign affairs). There have also been visits undertaken as part of the independent review of the live export trade being undertaken by Mr Bill Farmer, AO. Similarly, Australian industry has been working with exporters and importers to explain that changes in existing arrangements are expected to occur.

Trading partners who have a dependence on the import of Australian sheep and goats for their food security or to meet economic development, religious or cultural requirements will be particularly sensitive to any real or perceived threats to the future of the trade. Many countries that have been consulted recently have indicated broad support for efforts to improve animal welfare, but there are others who will be sensitive to any new requirements that impact on their domestic industries and that may influence the way in which they are perceived by other members of the international community.

Multiple Port Discharge

A further factor that should be considered in the implementation of new arrangements would be the links and synergies between particular groups of markets. Of note, voyages to the Middle East often have multiple discharge ports in different countries. Australian exporters have advised that a key reason for multi-destination voyages is that importing countries have a preference for smaller consignments at greater frequency compared to larger consignments at

lower frequency. Given that in many instances exporters may require a minimum number of sheep per consignment in order to make shipments cost-effective, the ability to ship to multiple destinations is often a commercially preferred method used by exporters to balance both the exporter's needs and the preferences of importing countries.

Similar issues may arise for goat exporters, with known trans-shipment of goats occurring in consignments going to Singapore for re-export to Malaysia.

It will be important as part of any implementation strategy to engage closely with trading partners to ensure that the basis for the new arrangements is understood and that there is common commitment to achieving improved animal welfare outcomes that meet accepted international levels. It is important that the transition to new arrangements takes into account a reasonable timeframe for these discussions with trading partners to occur.

Capacity building

The IGWG recognises that improving animal welfare is a complex process that needs to be addressed through work at both the micro level (on the ground in markets, feedlots/holding facilities and abattoirs/slaughter facilities) and at the macro level (through encouraging trading partners to adopt and implement international animal welfare requirements though legislation and regulation).

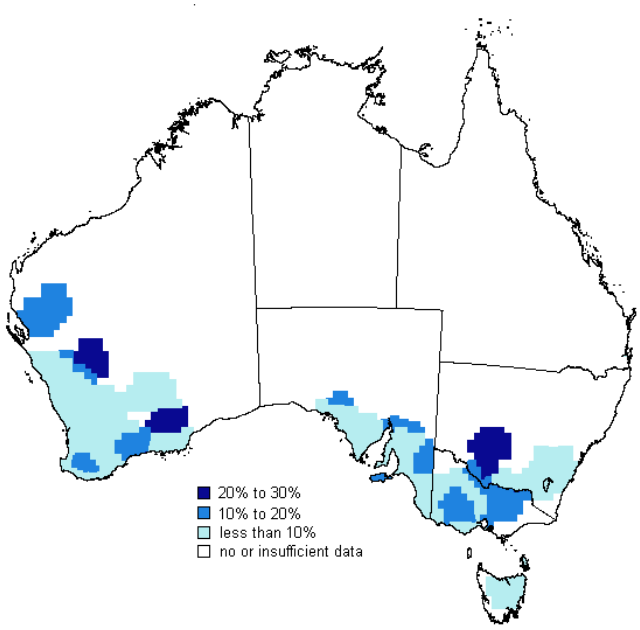
In order to achieve acceptable animal welfare outcomes in the supply chain arrangement in countries importing Australia livestock, the IGWG notes that improvements in supply chains could be accelerated by providing technical assistance and through capacity building projects for markets in the initial set up period. Any assistance provided should be considered on a case-by-case basis taking into account the size of the market, complexities associated with the supply chains, and economic status of the country to afford improvements. Consideration should be given to the appropriate role for the Australian Government and industry in these activities.

1.8 Domestic Issues and Impacts

A rapid implementation of a new regulatory framework could be disruptive to international trade and result in significant negative impacts on the Australian farm sector and related industries. It is believed that the proposed framework can be implemented in a way which minimises the disruption to established live animal markets while achieving the key principles being sought by the Australian Government.

The characteristics of the Australian sheep and goat industries are explained in Attachments E and F respectively. While the overall value of the trade, at more than $300 million a year, is of itself significant for Australia, the regional importance of the trade is notable. As shown in map 1, live sheep exports make a significant economic contribution in south west Australia and parts of south eastern Australia. Southern Western Australia dominates Australian live sheep exports with around 73 per cent of all sheep exports shipped from Fremantle in 2009-10. However, there are areas of South Australia, Victoria and southern New South Wales where live sheep sales for export make up a significant part of farm receipts. For goats, 34 per cent of all goat exports are shipped from South Australian ports (air and sea), however there is also a spread of exports across other states – including Queensland (21 per cent) New South Wales (19 per cent) and Victoria (8 per cent).

Map 1: Percentage of total cash receipts from sale of sheep and lambs for live export



Source: ABARES AAGIS data

The majority of farms selling sheep or lambs for live export are mixed enterprise farms combining sheep, lambs and wool enterprises with grain growing and beef cattle. This provides these farms with some level of resilience to potential changes in markets.

The live trade of sheep and goats results in international buyers competing in the domestic national market to secure shipments of stock which supports higher levels of prices for sheep producers in Australia. The export market assists with price discovery for the broader sheep farm operators by increasing the alternative markets for sheep, particularly in Western Australia.

However, because the live export industry is concentrated, the impact of any changes to livestock export standards, the cessation of exports to a particular market, or increases in the Australian price are felt most acutely in particular regions. There is a risk of adverse regional impacts as a result of changes to export conditions and volumes for the sheep and goat industries.

The impacts on other participants in the supply chain are strongly linked to how farmers and pastoralists respond to any reduction or cessation in the live export trade. If farmers and pastoralists choose to exit the industry or reduce their animal production in response to likely lower prices that would follow a reduction in the live export trade, then support industries will suffer through reduced throughput. Meat processors may be beneficiaries in the near and medium term, but not necessarily in the long term if flock and herd sizes diminish as resources are switched into alternative land uses. There are also wider impacts that would be felt by supporting and related industries from any reduction to the live export trade. These industries include feed and other input producers / traders, veterinary specialists, transport industries, feedlot consultants, and commodity trading firms.

1.9 Transitioning to the new regulatory framework

Due to the number of markets and multiple species, a transition phase to the new regulatory framework will be necessary. The IGWG proposes that transition be based around two key elements, as per Finding 2:

Finding 2: The IGWG proposes that the schedule for transition to the new regulatory framework be based around:

- sequencing of markets based on size of the trade to those markets; and
- timing based on a combination of practical considerations (what's able to be done) and sensitivities to market considerations.

This approach gives the Australian live export industry time to put in place compliant supply chain arrangements for each of the markets without unduly reducing the volume of trade, and meeting (to the extent possible) importing countries' needs. The timeline for introduction should also reflect the high priority placed on rapidly demonstrating acceptable animal welfare outcomes by the Australian Government.

It is proposed that all exports for all livestock species to 'new' markets will be subject to the new regulatory framework, and trade can only commence under the new framework. New markets are defined as those where no exports have occurred in the past five years or since the last significant change in the health protocol framework.

It is proposed that the date of effect of the new regulatory framework would apply to any export permits issued on or after that date (this would mean that notices of intention to export would need to be approved based on the new framework in advance of the deadline).

1.9.1 Sequencing - size of the market

The IGWG proposes that the new regulatory framework be rolled out in tranches that would cover larger markets (based on trade in live animals to those markets) in the first instance, with smaller markets being included after a period of time. The framework should be implemented to cover as large a proportion of total trade as possible in the first instance. By targeting several markets that make up the bulk of trade, the resources necessary to implement the framework (industry, exporters, and government including overseas posts, AQIS) can be managed. The decision on which countries will belong in which tranche could be based on trade thresholds from the 2010 calendar year. This also needs to take into consideration the likely parallel adoption of a new regulatory framework for cattle which affects some common markets and exporters.

A further consideration is whether to apply the new framework to all species exported to a particular market if it is above the threshold for one species, or to apply the framework to exports of just that species. Applying the framework to a whole market may help manage representations made to overseas governments and importers. However, it may also divert effort in the short run away from the most significant areas requiring attention (due to the need to deal with supply chains handling small quantities of animals in particular markets).

Shipments to some regions (such as the Middle East and Singapore/Malaysia) often contain livestock consignments for multiple markets. These are almost always exported under the one notice of intention to export. Having different regulatory frameworks for different consignments on the one shipment could thus be problematic. There may be some benefits in groupings of countries (such as the Gulf States or Singapore/Malaysia) into the same tranche. Such grouping may also help to reduce the risk of trans-shipment of animals between markets not yet in the new framework and those already included.

1.9.2 Timing – practical considerations and sensitivity to the importing country's requirements

The timing of implementation of the framework should take account of what is reasonably possible to expect in applying a substantial new approach to the live animal trade which will be unfamiliar to Australia's trading partners and which will apply across a large number of markets and across different species of animals. Many of the exporters are supplying to multiple markets and will need a reasonable timeframe to put in place arrangements in each of those markets, including ensuring supply chains meet the OIE requirements.

The implementation date of the first tranche of countries should be sensitive to importing country needs and cultural events. Hence, the timelines for adoption should take account of the Eid al-Adha (6-9 November 2011) which is the peak demand period for the Muslim countries. Similarly, the roll-out of further tranches will need to factor in 2012 Ramadan (20 July – 18 August 2012) and the 2012 Eid al-Adha (26-29 October 2012).

A mandatory timeframe for adherence to the new framework should not prevent exporters bringing supply chains in other markets into compliance with the framework in advance of the timelines on a voluntary basis.

1.10 Managing Immediate Risks

Given the time needed to implement the regulatory framework in all markets, early action will be needed to address any perceived immediate risks to animal welfare outcomes. There has been particular focus on the issue of private sales, but where significant issues around particular supply chains are identified, these should also be addressed in advance of the new arrangements where possible.

Private sales of live animals to unknown sources remain the biggest risk in terms of animal welfare outcomes. While not all private sales present animal welfare issues, it is those that result in handling and slaughter outside of specific-purpose premises which present a concern. These sales to numerous individuals reflect long-standing cultural and religious practices. The difficulty in addressing this issue, by changing behavioural practices, cannot be underestimated. It will require concerted effort to significantly limit such sales in advance of a regulatory framework being put in place. In light of this, the IGWG believes that there is a need for actions by industry and government during the transition period to the new regulatory framework, as outlined in Finding 3.

This issue has been raised in meetings of the IGWG. Industry remains committed to restricting private sales in all markets, particularly to the Middle East during the latter part of 2011. These

increased risks result from a significant increase in the demand for sheep, the number of private sales during this time and the associated animal welfare issues.

Government officials have also been meeting with trading partners to raise awareness of government considerations around the live export trade. Where it fits within existing programs, there may be a need for the Australian Government to consider assistance in these priority markets.

Finding 3: The IGWG proposes that in order to address immediate risks prior to the implementation of the new regulatory framework:

- industry and government continue to strengthen their efforts to significantly limit private sales in importing markets;
- industry take action to prevent sales of animals through supply chains that involve facilities that are known to fall well below OIE requirements; and
- Australian officials increase their activities with government officials in key overseas markets.

Industry Government Working Group on Live Sheep and Goat Exports

On 13 July 2011, Federal Minister for Agriculture, Fisheries and Forestry, Senator Joe Ludwig and Western Australian Minister for Agriculture and Food Terry Redman met with industry stakeholder representatives from the live sheep and goat export sector to consider actions needed to ensure sustainability of the trade. It was agreed that an Industry Government Working Group would be immediately established to develop supply chain management systems to protect the welfare of sheep exported from Australia.

Membership

The Working Group is chaired by the Secretary of the Department of Agriculture, Fisheries and Forestry, Dr Conall O'Connell, and consists of representatives from livestock industries, major live sheep and goat exporters and Commonwealth, state and territory governments.

Terms of Reference

The Industry Government Working Group on Live Sheep and Goat Exports is to:

1. provide an interim report to the Australian Government Minister for Agriculture, Fisheries and Forestry (the Minister) by the end of July 2011 and a final report to the Minister by 26 August 2011 on:

   - any areas of concern regarding animal welfare for live sheep and goat exports and any immediate action that might be taken to address these areas of concern;
   - a proposed supply chain assurance scheme for live sheep and goat exports that meets the following four principles:
     a. meets OIE standards for animal welfare,
     b. enables animals to be effectively traced or accounted for by exporters within a supply chain through to slaughter,
     c. has appropriate reporting and accountability, and
     d. is independently verified and audited;
   - a process for implementation of the supply chain assurance scheme for live sheep and goat exports; and
   - any impacts and adjustment responses for Australia's sheep and goat industry, including access to international markets, arising from the application of a new supply chain assurance scheme.

2. provide advice and information to governments and industry, as appropriate, on issues relating to the export of live sheep and goats from Australia.

The outcomes of the Working Group will be informed by the regulatory framework for animal welfare recently developed for the livestock trade to Indonesia and may provide information that supports the independent review (Farmer Review) into Australia's livestock export trade.

Industry Government Working Group on Live Sheep and Goat Exports - Membership

Chair

Conall O'Connell	Secretary, Department of Agriculture Fisheries and Forestry

Industry groups

Lach MacKinnon	Australian Livestock Exporters' Council
Peter Kane	Australian Livestock Exporters' Council
Rob Sutton	LiveCorp
Ron Cullen	Sheepmeat Council of Australia
Kate Joseph	Sheepmeat Council of Australia
Patrick Hutchinson	Goat Industry Council
Peter Barnard	Meat and Livestock Australia
David Crombie	GRM International

Exporters

Simon Jackson	Stockair
Garry Robinson	Wellards
Paul Elisio	P & D Exports
John Edwards	WA Live Exporters Association
Graham Daws	Emanuel Exports

State/Territory Government

Bruce Christie	Department of Primary Industries, New South Wales
Rob Delane	Department of Agriculture and Food, Western Australia
Mark Peters	Primary Industries and Resources, South Australia
Tony Britt	Department of Primary Industries, Victoria
Chris Chilcott	Primary Industries and Fisheries, Queensland
Greg Robbins	Primary Industries and Fisheries, Queensland
Rod Gobbey	Department of Resources-Primary Industry, Northern Territory
Rod West	Department of Territory and Municipal Services, Australian Capital Territory
Peter Dinan	Department of Territory and Municipal Services, Australian Capital Territory

Commonwealth Government

Mark Schipp	Australian Chief Veterinary Officer (acting)
Rona Mellor	Department of Agriculture, Fisheries and Forestry
Phillip Glyde	Department of Agriculture, Fisheries and Forestry
Paul Morris	Department of Agriculture, Fisheries and Forestry
James Flintoft	Department of Agriculture, Fisheries and Forestry

Livestock Export Supply Chain – Regulatory Approach
Sheep and Goats

Purpose

The purpose of this document is to define some of the detail associated with the controlled supply chain assurance approach to apply to Australian live sheep and goat exports. In particular the paper outlines:

- Roles and responsibilities of key participants in the supply chain
- Exporter assurance of the controlled supply chain
- Animal welfare
- Animal traceability requirements
- Auditing and reporting requirements

Roles and Responsibilities

The following table outlines the core responsibilities of the exporter and the regulator (Australian Government Department of Agriculture, Fisheries and Forestry - DAFF):

Responsible Entity: Exporter

Responsibilities

The export supply chain

- Submit details and supporting documentation of the exporter supply chain assurance system at the Notice of Intent (NOI) to export stage.
- Through contractual arrangements, implement and maintain processes throughout a controlled offshore supply chain to ensure that animals are accounted for at all stages and the handling meets the "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats.
- Establish and maintain a process for independent auditing along the supply chain.
- (Note that the onshore and voyage elements of the supply chain are regulated under existing arrangements)

Pre export in Australia and voyage:

- Ensure animals are prepared for the export voyage, completion of movement documentation and verify/ensure that each animal has an NLIS ear tag.
- Ensure animals are managed in accordance with the Australian Standards for the Export of Livestock (ASEL).

Transport to and handling at the feedlot / holding facility:

- Ensure transport to the feedlot / holding facility is in accordance with the "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats.
- Ensure animals are transported to the feedlot / holding facility within the controlled supply chain.
- Implement and maintain processes to ensure that all animals are accounted for and are handled in accordance with the "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats.

Transport to the abattoir / slaughter facility:

- Ensure transport to the abattoir / slaughter facility is in accordance with the "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats.
- Ensure all animals are transported to the abattoir / slaughter facility within the controlled supply chain.
- Implement and maintain processes to ensure that all animals can be accounted for and are handled in accordance with the "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats.

At the abattoir / slaughter facility:

- Implement and maintain processes to ensure that all animals can be accounted for and are handled in accordance with the "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats.

Independent third party audit

- Ensure independent audit report is supplied to DAFF as required.

Responsible Entity: DAFF

Responsibilities

- Regulation of exporter in accordance with Australian legislation.
- Receive and consider evidence of the verification of the exporter's supply chain from independent auditor prior to deciding whether to grant permission to export.
- Receive and consider evidence, including from an independent auditor, of any proposed variations to the exporter's approved supply chain as nominated in the initial NOI.

Exporter Assurance of Controlled Supply Chain

The exporter must obtain and provide evidence of supply chain control from the point of unloading of the vessel to the point of slaughter.

The evidence must include documentation clearly outlining the relationship between the licensed exporter, importer, feedlot / holding facility operator and abattoir / slaughter facility operator and transporters in the overseas country and the control method. The control process must be transparent and verifiable by an independent auditor.

When an exporter wishes to vary an approved exporter supply chain assurance system (ESCAS) to use a facility that has not yet been independently audited and subsequently approved by DAFF, the exporter may seek approval from DAFF in writing. DAFF considers that such an application to vary an importer and /or feedlot / holding facility whilst the animals are on board the ship or aircraft is high risk. DAFF approval of such a variation to a supply chain may not be achievable in accordance with an exporter's preferred commercial timeframes.

In order to ensure animals can readily move to alternative facilities within an approved supply chain it is advisable, where possible, for the exporter to nominate supply chains that include the range of possible facilities within a market at the NOI submission stage. Multiple facilities can be nominated on the NOI as part of the exporter's supply chain. Once approved by DAFF as part of the exporter supply chain no further approval would be required for movement between these facilities. Assurance that the animals remained within approved facilities throughout the chain will be obtained by the independent audit function.

Animal Welfare

A cornerstone of the supply chain assurance regulatory framework is a requirement that all elements of an export supply chain must meet, at a minimum, the requirements established by the World Organisation for Animal Health (OIE). Under the regulatory framework, a comprehensive checklist "Guidance on meeting OIE Code animal welfare outcomes" for sheep and goats has been developed to support this approach (Attachment D).

The guidance document is to assist Australian exporters of live animals and the importers, transporters, feedlot / holding facility operators and processors of these animals meet OIE animal welfare requirements. The guidance is also intended to assist independent auditors of the supply chain. The guidance is structured to cover common stages in the journey of slaughter or feeder livestock from disembarkation to slaughter in the country of destination. The requirements that follow are drawn from the World Organisation for Animal Health Terrestrial Animal Health Code (2010).

For each supply chain element from disembarkation to processing the desired animal welfare outcomes have been identified, drawn from the OIE Code. To consistently meet these animal welfare outcomes, a performance checklist was developed drawing out the key performance indicators contributing to that animal welfare outcome.

Performance measures and targets have been proposed for each performance element. The targets proposed have been drawn from international practice and industry experience, and it is anticipated that these will be refined with experience in using and auditing against these animal welfare requirements.

Risk mitigation plan for sheep animal welfare

Risk: Movement of animals outside of the approved supply chain

Location: Outside of supply chain

Mitigation Plan: Industry to include ban on movement of animals outside the approved supply chain in contractual arrangements.

Risk: Poor animal welfare in supply chain

Location: In country supply chain

Mitigation Plan: Independent audit against "Guidance on meeting OIE Code animal welfare outcomes" for sheep and goats.

All exporters to cease supply to supply chain or part of supply chain until acceptable standards have been implemented, independently audited and approved by DAFF as part of the ESCAS.

Risk: Mortalities (non slaughter) within the supply chain

Location: In country supply chain

Mitigation Plan: Included in "Guidance on meeting OIE Code animal welfare outcomes" for sheep and goats and in the scope of independent audit report.

Animal Traceability

In view of the practical and legal difficulties that constrain the use of individual identification in the short to medium term, it is proposed that the controlled supply chain system will be underpinned by an animal tracking system based on the counting of sheep / goats at points along the supply chain and reconciliations based on sheep / goat counts.

Traceability Core Principles

The implementation of a traceability system is based on the following core principles:

1. All animals must have an NLIS ear tag. The ear tag functions to identify an animal in an overseas country as being of Australian origin.
2. On arrival in the overseas country, sheep / goats will enter a supply chain and may be mixed with other consignments of sheep / goats exported from Australia.
3. Australian origin animals must be kept separate from non Australian origin animals in the supply chain feedlot / holding facility and abattoirs / slaughter facilities.
4. The system must be auditable, with the physical location of animals reconcilable against records. The exporter must be able to demonstrate to the independent auditor that appropriate evidence exists for all livestock transactions and movements that provide sufficient detail (company name, location address etc) to demonstrate that the animal movement has occurred within the supply chain specified by the exporter.
5. The exporter must organise for independent auditor reports on the traceability system (and animal welfare and control aspects) of the supply chain in accordance with the required schedule for each supply chain.

Note: The trace back of sheep or goats to specific export consignments or exporters is not currently part of the exporter supply chain assurance system.

Note: The countries which import a substantial number of Australian sheep generally have low numbers (one or two) importers.

Traceability along the chain

In order to deliver a tracking system that meets the overarching objectives of the controlled supply chain, movement recording, reconciliation and verification processes must be implemented at each point along the chain. The points where counting and the available records for reconciliation are detailed below:

<u>Export Depot/Registered Premises (Australia):</u>

- As animals move from the export depot, exporters must verify/ensure that all animals have an NLIS ear tag.

<u>Port (Australia):</u>

- Count all animals onto the ship / aircraft (records include bill of lading and export permit).

<u>Ship (voyage from Australia to Destination Port):</u>

- Record mortalities (record is the End of Voyage report).

Destination Port:

- Count all animals off the ship to individual feedlot / holding facility customers (tally records held by importer).
- Trucking documents will be issued as animals are loaded on trucks.

Feedlot / Holding Facility Entry:

- Count all animals on entry into feedlot / holding facility (importer / feedlot / holding facility livestock reconciliation records).
- Pass trucking documents to the feedlot / holding facility on arrival of each truck. The feedlot / holding facility combines all trucking dockets for a consignment into a summarised total.
- Ensure segregation of Australian origin animals from non Australian origin animals.
- Record mortalities (importer / feedlot / holding facility livestock reconciliation records).

Feedlot / Holding Facility Exit:

- Count animals as they are loaded onto trucks dispatched and record a movement from the feedlot / holding facility to the next facility (importer / feedlot / holding facility livestock reconciliation records).
- Retain trucking documents.
- Feedlot / holding facility record of movement to next facility.
- Where the next approved facility is not the abattoir / slaughter facility records of each intermediate facility will need to be maintained and be available to the independent auditor.

Abattoir / Slaughter Facility:

- Present evidence such as the trucking document on arrival at the abattoir / slaughter facility.
- Retain trucking documents
- Record of slaughter in the abattoir / slaughter facility

Risk mitigation plan for the proposed traceability system

A number of risks have been identified throughout the supply chain that could affect the integrity of the system. It is important that appropriate processes are implemented to mitigate these risks. The following table outlines the key risks and a proposed risk mitigation plan:

Risk: Australian origin animals are not accounted for because of mixing with animals from other countries

Location: Feedlot / holding facility

Mitigation Plan: Australian origin animals will be segregated from non Australian origin to facilitate accounting of animals.

Risk: Commercial sensitivities of exporter supply chain participants

Location: Feedlot / holding facility and abattoir / slaughter facility

Mitigation Plan: Commercially sensitive information only available to the auditor who provides assurances that control, welfare standards and animal accounting requirements are being met.

Risk: Comprehensive information on supply chain unknown

Location: Supply chains

Mitigation Plan: Industry to establish and document the appropriate supply chains for each country.

Risk: Loss of animals from supply chain

Location: In country supply chain

Mitigation Plan: All exporters to cease supply to supply chain or part of supply chain until acceptable standards have been implemented, independently audited and approved by DAFF as part of the ESCAS.

Risk: No unique individual animal identification

Location: Supply chain

Mitigation Plan: A system of accounting for animals through physical counts and records at critical points in the supply chain.

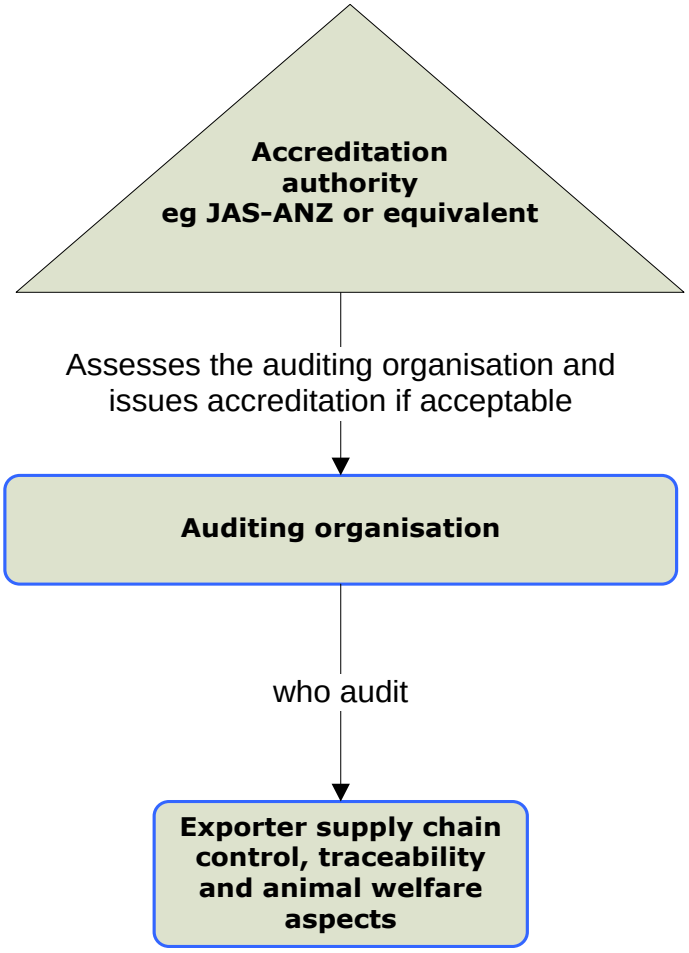
Auditing and Reporting Requirements

The controlled supply chain assurance system must be audited by an independent, suitably qualified auditor. The audit is to assess if the supply chain meets the "Guidance on meeting OIE Code animal welfare outcomes" for sheep and goats and that appropriate control and traceability of all animals exists.

The exporter must procure the services of an auditor who is independent, has no conflicts of interest, and possess an appropriate level of competence and expertise (through qualifications and experience). The audit conducted should be consistent with international auditing requirements and guidelines, be transparent, be evidence based and be conducted in an impartial, ethical and professional manner. Results from audits will be provided to Government and the outcomes made publicly available.

The three specific requirements specified for an auditor are independence, no conflicts of interest, and possessing an appropriate level of competence and expertise. In assessing these three requirements DAFF is requesting that evidence be provided by the exporter of current accreditation of the auditor by an appropriate authority such as the Joint Accreditation System – Australia and New Zealand (JAS -ANZ) or equivalent. This accreditation should be to an international standard (such as a standard of the International Standards Organisation) in a relevant area.

The basis of this requirement is that accreditation by such national bodies provide an endorsement of the auditor's "competence, credibility, independence and integrity in carrying out its conformity assessment activities" (www.jas-anz.org/). The following diagram demonstrates the relationship between the national accreditation body, the auditor and the auditor's role in checking that the exporter supply chain meets the "Guidance on meeting OIE Code animal welfare outcomes" and that appropriate control and traceability of animals exists.



For animal welfare aspects, the independent auditor would evaluate whether the supply chain complies with OIE requirements of animal welfare. The auditor will use the checklist titled "Guidance on meeting OIE Code animal welfare outcomes" for sheep and goats (Attachment D).

For traceability the independent auditor will examine the available records listed below to evaluate the traceability system and provide an audit report.

- Records of counts of all animals off the ship to individual feedlot / holding facility customers.
- Trucking documents for transport from port to feedlot / holding facility.
- Record of count of all animals on entry into feedlot / holding facility.
- Importer / feedlot / holding facility livestock reconciliation records.
- Importer / feedlot / holding facility mortality records at the feedlot / holding facility.
- Importer / feedlot / holding facility records of counts of all animals as they are loaded onto trucks.
- Trucking documents for transport from feedlot / holding facility to abattoir / slaughter facility.
- Feedlot record of movement to abattoir / slaughter facility.
- Record of slaughter in the abattoir / slaughter facility.

The export industry considers some information to be commercially sensitive and could compromise normal market negotiations.

The independent audit report must include the following components:

- A completed "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats covering each part of the supply chain.
- A statement on whether the supply chain systems accounted for the Australian origin animals during the audit period.
- A statement regarding whether the available records and record keeping system provided evidence for accounting for the animals throughout the supply chain.
- A statement regarding whether there was a loss of accounting of Australian origin animals and whether there was evidence of animals leaving the supply chain and/or private sales from the supply chain.

The "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats includes comment on the performance of animals (which should include consideration of the level of non slaughter mortalities among other things).

The supply chain system for accounting for the Australian origin sheep / goats includes consideration of count discrepancies, (non slaughter) mortalities and slaughter of animals.

There are two main types of independent audit reports required. An "initial" independent audit report will be required prior to DAFF approving the first export of animals into a new exporter supply chain and will cover the "Guidance on meeting OIE Code animal welfare outcomes" checklist for sheep and goats, the adequacy of the accounting system to be used and that the exporter has appropriate contractual arrangements in place.

Subsequent independent "performance" audit reports of the supply chain following export into that supply chain will be required to provide information on whether the animal welfare, traceability and control aspects are managed in accordance with the regulatory framework. The subsequent independent performance audits will be based on regular auditing of supply chains – initially on a frequent basis (for example, every two months) for the first six months in order to obtain a performance history, and then on a risk-based approach thereafter. At a minimum, there will be three audits per year, with two of these to occur at periods of highest risk during the festival periods.

Guidance on Meeting OIE Code Animal Welfare Outcomes
Sheep and Goats

Version 3.3 21 August 2011

This guidance is intended to assist Australian exporters of live animals and the importers, transporters, feedlotters and processors of these animals meet OIE Code animal welfare outcomes.

The guidance is structured to cover common stages in the journey of slaughter or feeder livestock from disembarkation to processing in the country of destination.

The requirements that follow are drawn from the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code (2010).

For each supply chain element from disembarkation to processing the desired animal welfare **outcomes** have been identified, drawn from the OIE Code. To consistently meet these animal welfare outcomes a **performance checklist** was developed drawing out the key performance indicators contributing to that animal welfare outcome.

It is intended that performance against these requirements be able to be independently audited. To this end **performance measures and targets** have been proposed for each performance element. The targets proposed have been drawn from international practice and industry experience. It is anticipated that these will be refined with experience in using and auditing against these animal welfare requirements.

Further explanation of these terms is provided under “Definitions”.

This document will be refined in the light of practical application. If you have comments or suggestions in relation to this guidance please contact <OCVO@daff.gov.au>.

Note on versions:
Version series 1: Indonesia – incorporated into series 2 and 3
Version series 2: cattle and buffalo
Version series 3: sheep and goats

Further Reading

1. OIE Terrestrial Animal Health Code, 19th Edition 2010. Chapter 7.2; Transport of Animals by Sea.
2. OIE Terrestrial Animal Health Code, 19th Edition 2010. Chapter 7.3; Transport of Animals by Land.
3. OIE Terrestrial Animal Health Code, 19th Edition 2010. Chapter 7.4; Transport of Animals by Air.
4. OIE Terrestrial Animal Health Code, 19th Edition 2010. Chapter 7.5; Slaughter of Animals.
5. National Animal Welfare Standards for Livestock Processing Establishments, 2009 prepared on behalf of the Australian Meat Industry Council (AMIC). (http://www.amic.org.au/SiteMedia/w3svc116/Uploads/Documents/Industry%20Animal%20Welfare%20Standards.pdf)
6. Grandin, T. (1998a) Objective scoring of animal handling and stunning practices at slaughter plants. Journal of American Veterinary Medical Association, 212, 36-39
7. Grandin, T. (1998b) The feasibility of using vocalization scoring as an indicator of poor welfare during slaughter. Applied Animal Behaviour Science, 56:121-128
8. Grandin, T. Auditing and Scoring of Vocalization of Cattle and Pigs at Slaughter Plants as an Indicator of Poor Practices that are Detrimental to Animal Welfare (http://www.grandin.com/auditing.scoring.poor.practices.html)
9. Opinion of the Scientific Panel on Animal Health and Welfare on a request from the Commission related to welfare aspects of the main systems of stunning and killing the main commercial species of animals, The EFSA Journal (2004), 45, 1-29 www.efsa.europa.eu/en/scdocs/doc/45.pdf
10. Australian Standards for the Export of Livestock (Version 2.3) 2011 http://www.daff.gov.au/animal-plant-health/welfare/export-trade/livestock-export-standards

Definitions

OIE Guidelines
Recommendations developed by the World Organisation for Animal Health (OIE) to ensure the welfare of food animals.

The OIE Code's chapters on animal welfare provide recommendations to ensure the welfare of food animals through the slaughter process until they are dead. The OIE guidelines are written in such a way that they require interpretation in order to be verified effectively. This can be in the form of an industry standard which satisfies the requirements of OIE in an auditable format (verifiable with a clear welfare outcome). Standards contain the word 'must'.

Guidelines
Recommended practices that should be followed to achieve the desirable animal welfare outcome/objective.

In this context Guidelines provide advice on how a business operator could manage their normal operations in order to reliably meet a Standard.

Audit
A systematic and functionally independent examination to determine whether activities and related results comply with planned objectives.

An audit provides an evaluation of the system and therefore provides a degree of assurance about day to day compliance.

Inspection
The examination of activities or facilities in order to verify that they conform to requirements.

An inspection usually provides a 'snap-shot' of performance on the inspection day.

Standard
Systematic control of activities to ensure that the needs and expectations of customers are met.

Contemporary animal welfare standards are commonly written with a 'welfare outcome'. These are less prescriptive standards and rely on the utilisation of performance criteria/indicators to determine if the outcome has been achieved.

Standard Operating procedure (SOP)
A written document or instruction detailing all steps and activities of a process or procedure.

SOPs are authorised documents that relate to the application of the standard.

Corrective action

Where non-compliance with the specified requirements is detected Corrective Action (CA) is undertaken by management. CA should immediately prevent poor animal welfare outcomes, return the process to compliant outcomes as soon as possible, and prevent future recurrence by addressing any underlying problem/s.

CA may involve a change of procedure and/or immediate repair to facilities, infrastructure or equipment. Assessment of its effectiveness commences immediately it is implemented.

Steps

The smaller actions that when put together form a procedure (part of the written SOP).

Each step is a component of a larger SOP. When steps are correctly performed and combined with other steps or activities the SOP is correctly performed. For example the SOP of placing an animal in a restraining box has several steps which must be performed correctly and in sequence to achieve the required animal welfare outcome.

Work Instruction (WI)

Detailed instructions that specify exactly what steps to follow to carry out an activity/task.

Occasionally the SOPs and WIs are used interchangeably, but generally a SOP will describe the steps of a process, while a WI describes how an actual task is performed (for example, the slaughter SOP would require further WIs on how to efficiently perform an effective sticking cut with an animal in upright or lateral recumbency). Work instructions are authorised documents that relate to the application of the standard.

Performance criteria/indicators/measures

What must be achieved to meet the defined animal welfare outcome as defined in the standard.

Animal welfare standards are accompanied by performance indicators/criteria, designed to enable the business to determine whether the outcome has been achieved and to introduce consistency and objectivity into the assessment process. Performance criteria must be verifiable/measurable.

Performance checklist

A list of performance criteria/indicators that can be used in the audit process to assess compliance with a standard.

A checklist of behaviours and activities that must be correctly performed to meet the required animal welfare outcomes.

Feedlot

A facility where livestock are fattened for market.

Distinguished from a farm by lack of access to pasture and from a holding facility by the provision of feed for the purposes of fattening for market.

Holding facility

An area where animals are held between different phases of their journey.

May be a temporary facility wherein animals are detained between legs of a journey. Feed may be required for maintenance purposes, but is not provided for the purpose of fattening for market.

Animal Welfare Outcomes

	SUPPLY CHAIN ELEMENT	OIE OUTCOMES
1	**HANDLING OF LIVESTOCK** OIE 7.5.1 and 7.5.2	**Livestock are handled efficiently and in a way that minimises the risk of adverse animal health and welfare outcomes.** • Suitable personnel to allow for handling of the livestock through the supply chain without undue stress and with a minimum of needless delay.
2	**LAND TRANSPORT OF LIVESTOCK** OIE 7.5.2	**Livestock are loaded, transported and unloaded appropriately to avoid pain and injury and minimise the risk of adverse animal health and welfare outcomes.** • Loading / unloading facilities are suitable for loading / unloading of livestock from vessels/vehicles. • Loading / unloading of vehicles is performed in ways and using facilities that prevent livestock experiencing undue stress, disease or injury. • Animals that are unfit for further transport by road are identified, documented and removed. • Animals that are unfit for further transport are treated or humanely euthanized to prevent them experiencing needless suffering. • Vehicles are clean and suitable for transporting livestock of the type involved for the distance required without causing undue stress or injury. • Vehicles are operated to deliver the animals to the destination with a minimum of delay and without causing undue stress or injury and with no interim loading of additional stock. • Animals identified as injured, ill or otherwise distressed are treated appropriately. • Suitable personnel to allow for handling of the livestock through the supply chain without undue stress and with a minimum of needless delay.

	SUPPLY CHAIN ELEMENT	OIE OUTCOMES
3	**FEEDLOT/HOLDING FACILITY** OIE 7.5.2	**Facilities are designed and constructed to hold an appropriate number of livestock without compromising the welfare of the animals.** • The design and operation of facilities and equipment in place at feedlots/holding facilities facilitates the natural 'flow' of animal movement without causing undue stress and excitation or otherwise compromising the welfare of the livestock. • Animals in the facility should maintain their normal social groupings and have sufficient space in their pens to exhibit normal behaviours without risk of injury. • The design and operation of facilities in place at feedlots/holding facilities allows for the removal of distressed, aggressive, sick or injured animals with a minimum of disruption to other livestock in the area. • Animals identified as injured, ill or otherwise distressed are treated appropriately.
4	**LAIRAGE** OIE 7.5.3 and 7.5.4	**Facilities are designed and constructed to hold and slaughter an appropriate number of livestock in relation to class and the throughput rate of the slaughterhouse without compromising the welfare of the animals.** • Animals are moved into the feed-race to be restrained at a rate that ensures no animal experiences undue delay before it is humanely slaughtered. • Animals at the processing establishment awaiting slaughter, either in races, forcing pens or in the lairage, are protected from excessive or potentially disturbing noises, smells or other stimuli that may be a source of stress. • Animals that become distressed while awaiting slaughter are moved away from animals being prepared for slaughter so as not to cause them unnecessary stress and are treated in accordance with the general guidelines for handling and treating animals until they can be expeditiously slaughtered without undue further distress. • Restraint of animals to facilitate effective and efficient slaughtering is provided in a way and using facilities to not distress or injure the animal and that is adequate for the size and nature of the animals presented for slaughter. • Animals that cannot be effectively restrained using humane methods are not to be slaughtered. • Stressed animals should be humanely killed immediately if necessary.

	supply chain ELEMENT	OIE OUTCOMES
5	**SLAUGHTER WITH STUNNING** OIE 7.5.7 and 7.5.8	**Where performed, stunning effectively and reliably renders the animal unconscious until it dies from blood loss** • Slaughtering of animals at processing establishments does not cause undue stress to the animals. • Where stunning is performed immediately **following** the neck cut (sticking) it effectively and reliably renders the animal unconscious until death supervenes from blood loss. • Where stunning is performed **prior to** sticking it immediately renders the animal unconscious until death supervenes from blood loss. • Stunning is to be performed on appropriately restrained animals using properly maintained equipment designed for the species and the purpose and operated in ways that provide for the required outcome. • Only competent[1] persons are authorised to use the stunning equipment. • Slaughter staff effectively sever blood vessels in the neck to expedite death from blood loss with the least possible delay after the animal has been effectively restrained for slaughter or stunned. • Absence of brain-stem reflexes consistent with the animal being dead is to be confirmed prior to the commencement of hanging and/or dressing procedures.

[1] As determined by the relevant regulatory authority

6	**SLAUGHTER WITHOUT STUNNING** OIE 7.5.9	**Animals are restrained humanely and slaughtered competently to minimise any suffering involved.** • Slaughtering of animals at processing establishments does not cause undue stress to the animals. • Livestock are restrained humanely, not tripped, thrown, dropped or suspended by their limbs whilst conscious. • Where stunning is not performed prior to slaughter, the neck cut ('sticking') is to be performed as a single cut with a freshly sharpened knife. • Slaughter staff effectively sever blood vessels in the neck to expedite death from blood loss with the least possible delay after the animal has been effectively restrained for slaughter. • Where stunning is not performed immediately **following** the neck cut (sticking) the animal is not to be disturbed and the wound edges not allowed to touch or be touched until the animal loses consciousness. • Absence of brain-stem reflexes consistent with the animal being dead is to be confirmed prior to any movement of the carcase or the commencement of dressing procedures.

Animal Welfare Performance Targets and Measurements

Supply Chain Element 1 - Handling of Livestock

OUTCOME: Livestock are handled efficiently and in a way that minimises the risk of adverse animal health and welfare outcomes.

Performance checklist	Performance measure and target	Acceptable			Corrective actions / Comments
		Yes	**No**	**N/A**	

1.1 Movement of livestock is carried out calmly and effectively.	Are staff observed to be working in accordance with Standard Operating Procedures for the relevant facility? Does this SOP incorporate low stress animal movement using natural behaviour? Observe management - what occurs when staff do not follow Standard Operating Procedures - Is control exercised and correction made to prevent recurrence? Are animals slipping[2] in races and on ramps? Target – less than 3% Are animals falling[3] during loading unloading and movement? Target – less than 1%				

[2] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal

[3] Falling is any body contact with the floor, excluding feet and/or legs

1.2	Staff do not try to make animals move (by moving into the flight zone) if they have nowhere to go.	Are staff observed to be working in accordance with Standard Operating Procedure for the relevant facility? Are animals handled without being forced needlessly to 'crowd' in races, pens etc by deliberate human activity? Target - animals are only forced against others to move towards an exit.				
1.3	If animals are already moving in the correct direction, they are never hit or have unnecessary pressure put on them	Are stock moving in the correct direction allowed to move without being hit or having pressure needlessly applied to them? Are supervisory staff applying corrective measures?				
1.4	Livestock are not isolated unless necessary.	If livestock are observed to be isolated can staff provide a justifiable reason for the isolation? Are supervisory staff applying corrective measures?				
1.5	Livestock are not left individually restrained during break times or delays.	Does observation show that no animal is left individually restrained during a break period or delay?				

1.6	All individual livestock are observed for signs of lameness, illness and injury during loading, unloading and when in facilities.	Are staff aware of the facility's Standard Operating Procedures for inspecting animals? Are supervisory staff applying corrective measures? Are animals inspected during loading, unloading and when in facilities (refer to Supply Chain Elements 2, 3, and 4)? What action is taken if lame or injured animals are detected?				
1.7	Livestock are never forced to walk over the top of other animals.	Are staff aware of and observed to be working in accordance with the facility's Standard Operating Procedures for handling animals? Are livestock moved without animals forced to walk over the top of others?				
1.8	Animals are handled to avoid harm, distress or injury.	Are animals handled without being tripped, dropped or thrown? Is appropriate manual lifting used? Where animals are manually handled does this occur without grasping or lifting only by their wool, hair, feet, neck, ears, tails, head, horns or limbs?				

1.9	Downer animals (animals that cannot walk or stand) are identified and provided with special handling and management.	Are downer animals identified and provided with special handling and management? Are facilities available to care for, or to segregate weak, ill or injured animals? Are weak, injured, or ill animals appropriately documented? Are facilities and equipment available to humanely dispose of animals on site or transport them for emergency slaughter?				
1.10	Livestock are not subjected to procedures that cause pain and suffering.	Ask and Observe: Are livestock handled without being subjected to painful procedures (including tendon cutting, whipping, tail twisting, use of nose twitches, pressure on eyes, ears or external genitalia)? Are livestock moved without the use of goads or other aids which cause pain and suffering (including large sticks, sticks with sharp ends, lengths of metal piping, fencing wire or heavy leather belts)?				
1.11	Goads are used appropriately.	Electric goads should not be used on sheep and goats				

Supply Chain Element 2 – Land Transport of Livestock

OUTCOME: Livestock are loaded, transported and unloaded appropriately to avoid pain and injury and minimise the risk of adverse animal health and welfare outcomes.

Performance checklist	Performance measure and target	Acceptable			Corrective actions / Comments
		Yes	No	N/A	
2.1 Vessel discharge ramp with non slip flooring.	Does the vessel discharge ramp have adequate non slip flooring? Take a measurement of slips and falls on the vessel discharge ramp. No more than 3 out of 100 animals are observed to slip[4]. No more than 1 out of 100 animals are observed to fall[5]. Does corrective action occur if slippages and falls exceed limits?				
2.2 Vessel discharge ramp sides sufficiently high to prevent escape.	Are ramps high enough to prevent escape? Target - No animals escape during discharge from the vessel. If any animals escape, are corrective actions taken immediately?				

[4] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal
[5] Falling is any body contact with the floor, excluding feet and/or legs

2.3 Livestock are unloaded from vessel by competent stock handlers in a manner that avoids injury and minimises stress.	Are staff observed to be working in accordance with Standard Operating Procedures? Are all animals unloaded without being injured? Target – no animals injured during unloading. If any animals are injured, are corrective actions taken immediately?				
2.4 Loading and unloading facilities do not have any faults or flaws that will cause injury to the animals.	Are loading/unloading facilities observed free from any sharp protrusions, faults or flaws that could cause injury or allow escape? If defects as above are noted, are corrective actions taken immediately?				

2.5 The vehicles are suitable for transporting livestock of the class involved and for the distance required.	Inspect 50% of vehicles used in 30 minutes of a loading / unloading / disembarkation period. On inspection do all vehicles have flooring that will minimise slipping? On inspection are all the livestock crates of sufficient height for the animals being transported and in accordance with Standard Operating Procedures? On inspection are livestock densities appropriate for the vehicle inspected and in accordance with Standard Operating Procedures?				
2.6 Livestock vehicles are free from faults or flaws that will allow escape or cause injury.	Are vehicles observed free from any sharp protrusions, faults or flaws that could cause injury or allow escape? Are vehicles inspected prior to livestock loading? If defects as above are noted, are corrective actions taken immediately?				
2.7 Discharge ceases if angle of discharge ramp causes livestock to fall or slip during discharge.	Does discharge cease when ramps angle is associated with excessive falls or slips?				

2.8 Livestock are loaded and unloaded from vehicles in a calm and efficient manner.	Are staff observed to be working in accordance with Standard Operating Procedures? Are livestock unloaded without needless use of noise and goads?				
2.9 Livestock that are unfit for loading, unloading or transport are identified and documented and either treated or humanely disposed of.	Are suitable facilities available to care for, or to segregate weak, ill or injured animals? Are weak, injured, ill and humanely disposed of animals appropriately documented? Are facilities and equipment available to humanely dispose of animals on site?				

Supply Chain Element 3 – Feedlot/holding Facility

OUTCOME: Facilities are designed, maintained and operated to hold and feed an appropriate number of livestock without compromising their welfare.

Performance checklist	Performance measure and target	Acceptable			Corrective actions / Comments
		Yes	No	N/A	
3.1 Livestock are loaded and unloaded from vehicle in a calm and efficient manner.	Are staff observed to be working in accordance with Standard Operating Procedures?				
3.2 The number of livestock unloaded does not exceed the capacity of pens and races available.	Are livestock held in raceways only to assist movement through the feedlot/holding facility? Target - no animals held in raceways.				
3.3 Holding pens provide enough space for the animals to stand up, lie down and turn around.	Do penned livestock have sufficient space to stand up, lie down and turn around?				
3.4 The loading and unloading facilities are free of faults or flaws which will cause injury to the animals.	Are loading/unloading facilities observed free from any sharp protrusions, faults or flaws that could cause injury or allow escape? If defects as above are noted, are corrective actions taken immediately?				

3.5 Loading/unloading ramps are not slippery or excessively steep.	Do the loading and unloading ramps have non slip flooring? Observe at least 2 vehicles unloading or 200 animals. Are less than 3% of animals observed to slip[6]? Are less than 1% of animals observed to fall[7]? If slippages and falls exceed limits, are corrective actions taken immediately?				
3.6 Pens, races and gates are free from protrusions and sharp edges that can injure animals.	Are facilities free from sharp protrusions that can injure animals? If protrusions and sharp edges are noted, are corrective actions taken immediately?				

[6] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal
[7] Falling is any body contact with the floor, excluding feet and/or legs

3.7 The design and flooring of passageways and races allows for calm and effective animal movement.	Are races and passageways suitable for the species involved and with minimal abrupt corners? Are less than 3% of animals observed to slip[8]? Are less than 1% of animals observed to fall[9]? If slippages and falls exceed limits, are corrective actions taken immediately? Flooring does not hamper animal movement Target – less than 3% animals baulk or try to turn around because of flooring				
3.8 Lighting is conducive to animal movement.	Observe at least 50 animals being moved. Lighting provides even, uniform light without dark shadows so as not to hamper animal movement. Target – less than 3% animals baulk or try to turn around because of lighting.				
3.9 Feedlot/holding facility design and lighting enables animals to be inspected.	Does feedlot/holding facility design enable animals to be inspected? Is lighting sufficient for inspecting livestock?				

[8] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal
[9] Falling is any body contact with the floor, excluding feet and/or legs

3.10 Clean water is available for all animals.	Is clean water available in all pens where livestock are held? Are livestock observed to be able to access drinkable water?				
3.11 Feed of sufficient quantity and quality is available to all animals.	Are management aware of feedlot/holding facility Standard Operating Procedures for feed quality and quantity requirements? Are facilities for providing feed available and operational? Are livestock observed to be able to access feed?				
3.12 The feedlot/holding facility is designed so that animals are protected from exposure to adverse weather conditions.	OBSERVE – Do animals in the feedlot/holding facility have free access to shade and/or shelter? ASK - Is protection from adverse weather provided in other ways?				

3.13 Animals are inspected twice daily and records are kept.	Are staff aware of the facility's Standard Operating Procedures for inspecting animals? Ask at least two feedlot/holding facility staff what the daily inspection routine is. Target – confirmation from staff inspection occurs at least twice daily. Does the feedlot/holding facility have a documented system for recording inspection and monitoring performance? Does the feedlot/holding facility review the performance of the animals in the feedlot/holding facility?				
3.14 Animals are inspected and drafted on arrival at the facility.	Are staff aware of the facility's Standard Operating Procedures for inspecting animals? Are animals inspected and drafted on arrival at the facility? If no animals arriving, ask at least two feedlot/holding facility staff what the arrival inspection routine is. Target – to observe at least one vehicle inspected on arrival or confirmation from staff inspection occurs on arrival at the facility.				

3.15	Sick or injured animals are humanely disposed of or segregated and treated appropriately.	Are staff aware of the facility's Standard Operating Procedures for treating sick and injured animals? Are facilities available to care for, or to segregate weak, ill or injured animals? Can animals be humanely disposed of on-site? Does the feedlot/holding facility have a documented system recording management of sick or injured animals?				

Supply Chain Element 4 – Lairage

OUTCOME: Facilities are designed, maintained and operated to hold and slaughter an appropriate number of livestock in relation to class and the throughput rate of the slaughterhouse without compromising their welfare.

Performance checklist	Performance measure and target	Acceptable			Corrective actions / Comments
		Yes	No	N/A	
4.1 Livestock are loaded and unloaded from vehicles in a calm and efficient manner.	Are staff observed to be working in accordance with Standard Operating Procedures?				
4.2 The number of livestock unloaded does not exceed the capacity of pens and races available.	Are livestock held in raceways only to assist movement through the lairage? Target - no animals held in raceways				
4.3 Holding pens provide enough space for the animals to stand up, lie down and turn around.	Do penned livestock have sufficient space to stand up, lie down and turn around?				
4.4 The loading and unloading facilities are free of faults or flaws which will cause injury to the animals.	Are loading/unloading facilities observed free from any sharp protrusions, faults or flaws that could cause injury or allow escape? If defects as above are noted, are corrective actions taken immediately?				

4.5	Loading/unloading ramps are not slippery or excessively steep.	Do the loading and unloading ramps have adequate non slip flooring? Observe at least 2 vehicles unloading or 200 animals. Are less than 3% of animals observed to slip[10]? Are less than 1% of animals observed to fall[11]? If slippages and falls exceed limits, are corrective actions taken immediately?				
4.6	Pens, races and gates are free from protrusions and sharp edges that can injure animals.	Are facilities free from sharp protrusions that can injure animals? If defects as above are noted, are corrective actions taken immediately?				

[10] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal

[11] Falling is any body contact with the floor, excluding feet and/or legs

4.7	The design and flooring of passageways and races allows for calm and effective animal movement.	Are races and passageways suitable for the species involved and with minimal abrupt corners? Are less than 3% of animals observed to slip[12]? Are less than 1% of animals observed to fall[13]? Flooring does not hamper animal movement? Target – less than 3% animals baulk or try to turn around because of flooring				
4.8	Lighting is conducive to animal movement.	Observe at least 50 animals or 20% of daily slaughter (whichever is the lesser) being moved. Lighting provides even, uniform light without dark shadows so as not to hamper animal movement. Target – less than 3% animals baulk or try to turn around because of lighting.				
4.9	Lairage design and lighting enables animals to be inspected.	Does lairage design enable animals to be inspected? Is lighting sufficient for inspecting livestock?				

[12] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal
[13] Falling is any body contact with the floor, excluding feet and/or legs

4.10	Clean water is available for all animals in holding pens.	Is clean water available in all pens where livestock are held? Are livestock observed to be able to access drinkable water?				
4.11	Feed is provided to animals held in excess of 12 hours.	For animals held in excess of 12 hours: Are facilities for providing feed available and operational? Are animals observed to be able to access feed?				
4.12	Animals are inspected on arrival at the facility.	Are staff aware of the facility's Standard Operating Procedures for inspecting animals? Are animals inspected on arrival at the facility? If no animals arriving, ask at least two lairage staff what the arrival inspection routine is. Target – to observe at least one vehicle inspected on arrival or confirmation from staff inspection occurs on arrival at the facility.				

4.13	Animals held in excess of 12 hours are inspected twice daily.	For animals held in excess of 12 hours, are staff aware of the facility's Standard Operating Procedures for inspecting animals? Ask at least two lairage staff what the daily inspection routine is. Target – confirmation from staff inspection occurs at least twice daily.				
4.14	Sick or injured animals are humanely disposed of or segregated and treated appropriately.	Are staff aware of the facility's Standard Operating Procedures for treating sick and injured animals? Are weak, ill or injured animals humanely disposed of on-site or treated appropriately?				
4.15	The lairage is designed so that animals are protected from exposure to adverse weather conditions.	OBSERVE – Do animals in the lairage have free access to shade and/or shelter? ASK - Is protection from adverse weather provided in other ways?				

Supply Chain Element 5 – Slaughter with Stunning

OUTCOME: Where performed, stunning effectively and reliably renders the animal unconscious to prevent suffering until it dies from blood loss.

Performance checklist	Performance measure and target	Acceptable			Corrective actions / Comments
		Yes	No	N/A	
5.1 Slaughter of livestock is carried out calmly and effectively.	Are staff aware of and observed to be working in accordance with Standard Operating Procedures for the facility?				
5.2 A back-up procedure (to stunning) is in place.	Stunning equipment is in working order and well maintained. In the case of failure of the primary stunning equipment, is an alternative procedure in place and appropriate for the facilities and staff procedures to allow for processing to continue without adverse animal welfare outcomes? Is it documented and was it seen in action?				
5.3 The approach to, and floor of the restraining area is not slippery.	Does the approach to and floor of the restraining area have non slip flooring? Observe 10 animals or 20% of daily slaughter (whichever is the lesser) Target – less than 3% of animals slip[14] and less than 1% fall[15].				

[14] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal

[15] Falling is any body contact with the floor, excluding feet and/or legs

5.4 Animals are presented for slaughter without being unduly stressed.	Are animals presented for slaughter without being unduly stressed? Observe 10 animals or 20% of the daily slaughter (whichever is the lesser) The approach to and restraining area are designed so that animals approaching the restraining area are not seeing moving humans or equipment up ahead. The approach to and restraining device are designed to avoid excessive clanging and banging of metal objects.				
5.5 The method of restraint employed is appropriate for the size and class of livestock being stunned.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Is the method of restraint employed appropriate for the size and class of livestock being stunned?				
5.6 Restraining equipment is free from obstructions and sharp edges.	Is restraining equipment free from obstructions and sharp edges? If defects as above are noted, are corrective actions taken immediately?				

5.7 The method of restraint employed is working effectively.	Are staff aware of the facility's Standard Operating Procedures for restraining animals prior to slaughter? Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are animals able to physically enter the restraining area easily? Are they effectively restrained, without tripping, falling or losing balance and cannot escape? Restraining or other methods enable the effective and accurate positioning of the stun apparatus? Target – all animals are effectively restrained.				
5.8 Knife sharpening equipment is in working order and well maintained.	Examine the equipment and observe the operator using the equipment correctly at least once during the checking period. Target – facilities for maintaining sharp knives are maintained and used.				
5.9 Knives are sharpened before beginning the slaughter operation and between animals.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are knives sharpened before beginning the slaughter operation and between animals? Target – all knives are always sharp for the act of slaughter.				

5.10	The appropriate charge/pressure/electrical setting is selected for the animal	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are manufacturer's instructions available on site? Is the appropriate charge/pressure/electrical setting selected for each animal? Does the electrical stunning apparatus incorporate a device that monitors and displays voltage (true RMS[16]) and the applied current (true RMS) and has the device been calibrated at least annually? For head only electrical stunning are the following minimum current levels attained within 1 second of applying the electrodes and maintained for at least between 1 and 3 seconds, consistent with the manufacturer's instructions? Sheep, Goats 1.0 Amps Lambs 0.7 Amps				
5.11	Where pre-stick stunning is used, stunning occurs without delay once the animal has been restrained.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Is stunning carried out without delay once animal has been restrained?				

[16] Root Mean Square voltage

5.12 Where post-stick stunning is used, stunning occurs immediately after severing of the throat.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Is stunning carried out immediately after the animal's throat has been severed? Target – stunning takes place immediately after the throat cut is made.				

5.13	The stunning equipment is correctly applied.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). For percussive stunning - Is the stun gun held at the correct position and angle to the animals' heads in accordance with Standard Operating Procedures? For sheep – the device is applied perpendicular to the middle of the forehead above the eyes at the level of the horn bud For goats and heavily horned sheep - the device is applied perpendicular to the midline just behind the poll, aiming towards the angle of the jaw. For head only electrical stunning: • as in the SOP, do the electrodes span the brain, • are the electrodes kept clean, and • is good contact with the skin maintained for at least between 1 and 3 seconds, consistent with the manufacturer's instructions? Target –all stuns are applied in accordance with SOPs, OIE Article 7.5.7 and the manufacturer's directions.				

5.14	For pre-stick stunning, livestock are stunned in an upright position.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are livestock stunned in an upright position before slaughter? Target – all livestock are stunned in an upright position. If an animal does go down, is it able to be stunned and released effectively? If not, is it allowed up?				
5.15	The stun results in immediate collapse and unconsciousness of the animal.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Does the stun result in immediate collapse and unconsciousness of animals? Target – 95% all animals are effectively stunned with a single stun.				
5.16	If the initial stun is ineffective, a re-stun is applied immediately.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser): Is a re-stun immediately applied if the initial stun is ineffective? Target – a successful re-stun is applied without delay as required.				
5.17	Knife used for slaughter is long and sharp enough to sever both carotid arteries.	Sight and confirm - is the knife used for slaughter long enough to sever both carotid arteries and produce pulsatile bleeding?				

5.18	The cut produces massive pulsatile bleeding from both carotid arteries.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Do the cuts produce massive pulsatile bleeding from both carotid arteries? Is the head positioned after the cut so that bleeding is unhindered? Target – cut produces massive pulsatile bleeding from both carotid arteries for all animals.				
5.19	The time between stunning and sticking is no longer than 20 seconds.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Is the time between stunning and sticking less than 20 seconds? (OIE Terrestrial Animal Health Code, Article 7.5.7.5)				
5.20	Death, indicated by cessation of pulsatile bleeding, lack of corneal reflex and lack of rhythmic breathing, is assured before performing any other procedures.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are signs of death - cessation of pulsatile bleeding, lack of corneal reflex and lack of rhythmic breathing - checked before any other procedures are performed? Do any animals show any signs of consciousness when dressing commences? Target – no animal shows signs of consciousness when dressing commences. If any animal shows signs of consciousness when dressing commences does dressing stop immediately and a re-stun is applied?				

5.21	Animals must not have water thrown on them or be otherwise disturbed prior to confirmed death.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Target – No animals have water thrown on them or are otherwise disturbed except as is necessary for re-stunning before death. Target – the initial assessment of whether animals are dead confirms that the animals are dead in at least 95% of cases.				
5.22	WHERE ALLOWED: Pregnant females are handled separately to other stock and if slaughtered foetuses are not rescued.	Slaughtering of pregnant females in the final 10% of their gestation is prevented? Is the uterus removed intact and left for at least 5 minutes before any further incision is made to retrieve the foetus? No attempt is made to revive the foetus after removal from the uterus?				

Supply Chain Element 6 – Slaughter without Stunning

OUTCOME: Animals are restrained humanely and slaughtered competently to minimise any suffering involved.

Performance checklist	Performance measure and target	Acceptable			Corrective actions / Comments
		Yes	No	N/A	

6.1	Slaughter of livestock is carried out calmly and effectively.	Are staff aware of and observed to be working in accordance with Standard Operating Procedures for the facility?				
6.2	The approach to, and floor of the restraining area is not slippery.	Does the approach to and floor of the restraining area have non slip flooring? Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Target – less than 3% of animals slip[17] and less than 1% fall[18].				
6.3	The method of restraint employed is appropriate for the size and class of livestock being slaughtered.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Is the method of restraint employed appropriate for the size and class of livestock being slaughtered? Are they effectively restrained, without tripping, falling or losing balance and cannot escape?				

[17] Slipping is any loss of footing as a result of flooring, e.g. not due to behavioural contact with another animal
[18] Falling is any body contact with the floor, excluding feet and/or legs

6.4	Animals are presented for slaughter without being unduly stressed.	Are animals presented for slaughter without being unduly stressed? Observe 10 animals or 20% of the daily slaughter (whichever is the lesser). The approach to and restraining area are designed so that animals approaching the restraining area are not seeing moving humans or equipment up ahead. The approach to and restraining device are designed to avoid excessive clanging and banging of metal objects. Are staff aware of and observed to be working in accordance with Standard Operating Procedures for the facility?				
6.5	The restraining equipment is free from obstructions and sharp edges.	Is restraining equipment or area free from obstructions and sharp edges? If defects as above are noted, are corrective actions taken immediately?				

6.6	The head is restrained for as short a time as possible prior to sticking, and in no case for longer than 10 seconds.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Has the slaughterman effectively stuck the animal within 10 seconds of the head being restrained? Target – all animals are effectively stuck within 10 seconds of head restraint.				
6.7	The head is restrained in a manner which facilitates sticking.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Is the head restrained in a manner which facilitates sticking and allows rapid bleed-out? Target – heads are all restrained to enable slaughterman to perform effective sticking.				
6.8	The head of the animal is kept in extension to prevent the edges of the wounds touching until the animal is dead.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are heads extended sufficiently to prevent the cut edges of the wound from touching? Are wound edges touched by the animal, other animals, equipment or slaughterman? Target - heads are held extended until pulsatile flow ceases.				

6.9	The method of restraint employed is working effectively.	Are staff aware of the facility's Standard Operating Procedures for restraining animals prior to slaughter? Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are animals able to physically enter the restraining area easily? Are they effectively restrained, without tripping, falling or losing balance and cannot escape? Target – all animals are restrained to allow effective sticking.				
6.10	Knives are sharpened before beginning the slaughter operation and between animals.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are knives sharpened before restraining the animal and beginning the slaughter operation? Are knives sharpened between animals? Target – all knives are always sharp for the act of slaughter.				
6.11	Knife used for slaughter is long and sharp enough to sever both carotid arteries.	Sight and confirm - is the knife used for slaughter long enough to sever both carotid arteries and produce pulsatile bleeding?				

6.12 The throat is cut using a single[19], deep, uninterrupted fast stroke of the knife.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Is the throat cut using a single, deep, uninterrupted fast stroke of the knife? Target – all animals are slaughtered with a single uninterrupted, fast deep stroke of the knife.				
6.13 The cut produces massive pulsatile bleeding from both carotid arteries.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Do the cuts produce massive pulsatile bleeding from both carotid arteries? Target – cut produces massive pulsatile bleeding from both carotid arteries for all animals.				

[19] Single – blade does not leave wound until act is complete

6.14	Death, indicated by cessation of pulsatile bleeding and lack of corneal reflex and lack of rhythmic breathing, is assured before performing any other procedures.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Are signs of death, indicated by cessation of pulsatile bleeding, lack of corneal reflex, and lack of rhythmic breathing, checked before any other procedures are performed? Do any animals show any signs of consciousness when dressing commences? Target – no animal shows signs of consciousness when dressing commences. If any animal shows signs of consciousness when dressing commences does dressing stop immediately?				
6.15	Animals must not have water thrown on them or be otherwise disturbed prior to confirmed death.	Observe 10 animals or 20% of daily slaughter (whichever is the lesser). Target – No animals have water thrown on them or are otherwise disturbed before death. Target – the initial assessment of whether animals are dead confirms that the animals are dead in at least 95% of cases.				

6.16 WHERE ALLOWED: Pregnant females are handled separately to other stock and if slaughtered foetuses are not rescued.	Slaughtering of pregnant females in the final 10% of their gestation is prevented? Is the uterus removed intact and left for at least 5 minutes before any further incision is made to retrieve the foetus? No attempt is made to revive the foetus after removal from the uterus?				

Characteristics of the Australian Sheep Industry

Industry Overview

Exports of live sheep accounted for 10 per cent of total Australian sheep and lamb turnoff and 11 per cent of the total gross value of sheep and lamb industry production (GVP) in 2009–10. Live sheep exports have a significant economic contribution in some regions of Australia, both in south west Australia and parts of south eastern Australia.

Australia's sheep industry has historically been dominated by outcomes in wool markets. However, while wool remains important, sheep meat production is becoming an increasingly significant driver of developments in the industry.

In 2009-10 Australia exported 3.1 million sheep, valued at $297 million. This compares with slaughter for meat production of 7.3 million sheep and 19.5 million lambs at a total gross national value of $2,330 million, and production of wool of 423,000 tonnes at a total gross value of $1,928 million.

Table 1a shows the contribution of the live sheep export industry by state compared by numbers, while table 1b shows the contribution in gross value terms.

Southern Western Australia dominates Australian live sheep exports. Around 73 per cent of all sheep exports were shipped from Fremantle in 2009-10. Live sheep exports from Western Australia accounted for 39 per cent of total turnoff in that state, or 48 per cent of the total gross value of sheep industry production (excluding wool) in 2009-10.

Table 1a Australian sheep industry turnoff, 2009-10

	Sheep slaughter 000 head	Lamb slaughter 000 head	Live export 000 head	Total 000 head	live export as per cent of total turnoff %[1]
Victoria	2,543	8,231	627	11,401	5
NSW	1,974	4,698	5	6,676	0
QLD	381	255	0	637	0
WA	1,352	2,135	2,215	5,701	39
SA	946	3,751	209	4,905	4
Tas	137	408	0	545	0
Aust	**7,333**	**19,478**	**3,055**	**29,866**	**10**

Source: ABS

[1] Live exports as a proportion of total turnoff at the State level may be misleading as it does not take account of interstate livestock transfers.

Table 1b Australian sheep industry turnoff, 2009-10

	Total sheep industry GVP[1] ($m)	Live export[2] ($m)	Live export as per cent of total GVP[3] %
Vic	1,046	58	6
NSW	584	1	0
QLD	45	0	0
WA	461	220	48
SA	448	18	4
Tas	41	0	0
ACT	2	0	0
Aust	**2,627**	**297**	**11**

Source: ABS
[1] Includes lamb & sheep slaughter and live export; excludes wool
[2] Data recorded at point of export: may not reflect state/territory of production as interstate livestock transfer data is unavailable.
[3] Live exports as a proportion of total turnoff at the state and territory level may be misleading as it does not take account of interstate livestock transfers.

Regional Importance of Live Exports

On average, during the three years ending 2009-10, an estimated 3,120 farms sold sheep or lambs for live export, according to ABARES Australian Agricultural and Grazing Industries Survey (AAGIS). This is around 11 per cent of all farms in Australia with more than 100 sheep during this period.

The percentage of farms (with more than 100 sheep) selling sheep or lambs for live export during this period was highest in Western Australia at 43 per cent (2,160 farms). In Victoria 10 per cent of farms (660 farms) sold sheep or lambs for live export, 5 per cent in South Australia (250 farms), 1 per cent in New South Wales (50 farms) and 1 per cent in Tasmania (less than 10 farms).

Around 1,000 farms (4 per cent of all farms with greater than 100 sheep) sold more than 50 per cent of their total turn-off of sheep and lambs for live export. The majority of these farms were located in Western Australia.

According to AAGIS data, around 77 per cent of total sales of sheep and lambs for live export during the three years ending 2009-10 were from farms located in Western Australia, 17 per cent from farms in Victoria, 4 per cent from South Australian farms, 2 per cent from New South Wales and less than 1 per cent from Tasmanian farms.

In 2009-10, the total number of sheep and lambs exported was lower than in the previous two years and the number of farms selling sheep or lambs for live export is estimated to have been reduced to around 2,390 with just over 72 per cent of these farms located in Western Australia, according to AAGIS data.

On average, farm cash incomes and rates of return for farms selling sheep or lambs for live export exceeded the average for all farms with sheep, over the period 2007-08 to 2009-10. To a large extent, higher farm cash incomes and rates of return for farms involved in the sale of sheep or lambs for live export are due to the larger scale of operations and greater reliance on crop enterprises compared to the average for all farms with sheep or all broadacre farms.

The financial performance of farms selling sheep or lambs for live export was generally strong with positive average rates of return recorded over the period 2007-08 to 2009-10 in all states involved in the trade. However, in 2009-10, average farm cash income was reduced significantly in Western Australia due to the effects of drought that resulted in reduced crop receipts, increased sheep turnoff and increased farm cash costs.

During the three years ending 2009-10, sale of sheep and lambs accounted for an estimated 6.2 per cent of average turn-off of sheep and lambs (farms with more than 100 sheep). Overall, receipts from the sale of sheep or lambs for live export accounted for 1.2 per cent of the total cash receipts of all farms with greater than 100 sheep, over the three years ending 2009-10.

The majority of farms selling sheep or lambs for live export are mixed enterprise farms combining sheep, lambs and wool enterprises with grain growing and beef cattle. For farms selling sheep or lambs for live export, live export sales accounted for 7 per cent of average total cash receipts in the three years to 2009-10; 19 per cent of receipts from sheep, lambs and wool; 37 per cent of sheep and lamb turn-off; and 40 per cent of average sheep and lamb receipts.

For farms selling sheep or lambs for live export, live exports accounted for a larger share of sheep and lamb receipts in Western Australia (around 45 per cent) compared to the other states (all less than 30 per cent). However, because of the much larger contribution of crops to total cash receipts for Western Australian farms live exports share of average total cash receipts for Western Australian farms was not significantly different to the other states, averaging around 6 per cent for the three years ending 2009-10.

However, farms in the southern rangelands of Western Australia, north central South Australia and south western New South Wales, together with some areas where cropping and beef cattle are less dominant enterprises in Victoria, South Australia and Western Australia, recorded significantly higher reliance on receipts from the sale of sheep and lambs for live export (map 1).

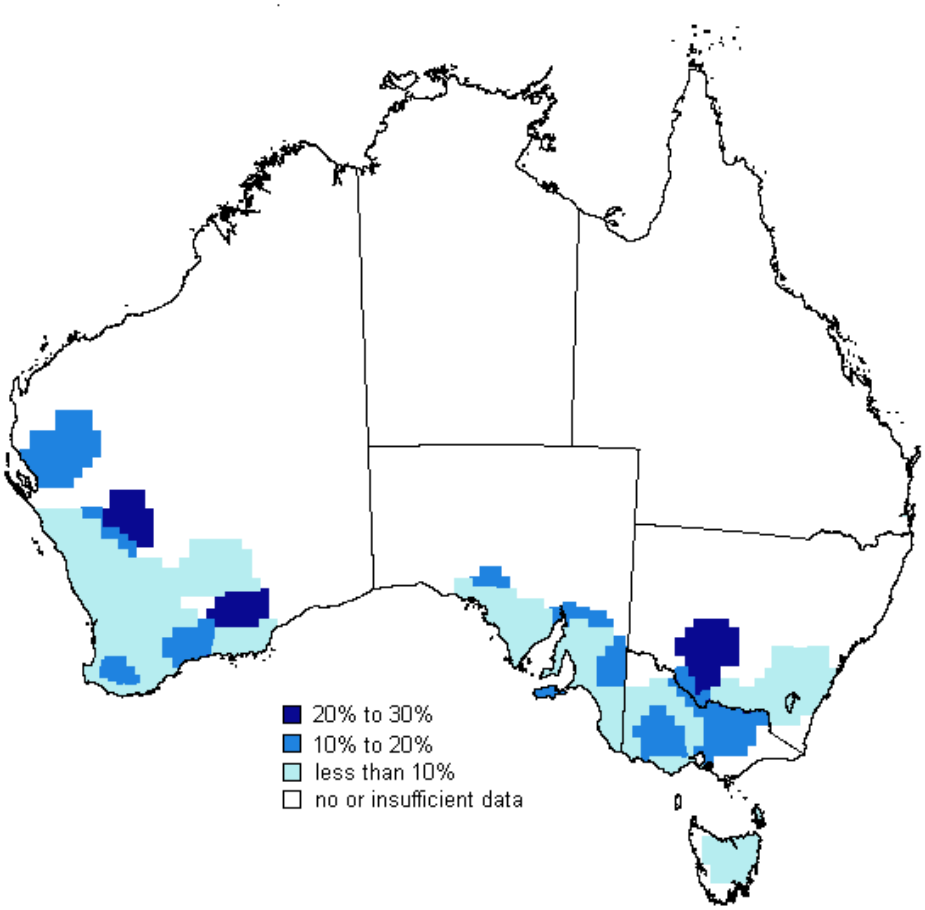
The live animal trade has wider benefits for a range of agriculture industries and services in the Australian economy, such as feed and other input producers / traders, veterinary specialists, transport industries, feedlot consultants, and commodity trading firms. The interrelated nature of agriculture and services is particularly important in regional areas where they comprise a high proportion of local economic activity.

Export Markets

In recent years the largest market for live sheep exports has been the Middle East, a trade route that developed during the 1970s. Most sheep exported by Australia are destined for markets in the Middle East. Of the 2.9 million sheep Australia exported live in 2010-11, over a million (40 per cent) were destined for Kuwait, 15 per cent for Bahrain and 14 per cent for Turkey. Other major destinations included Qatar (11 per cent) and Jordan (7 per cent) (see table 2).

Demand for live sheep imports by the Middle East has been very strong over the past decade. Despite investment in intensive breeding units, domestic production is limited by the arid conditions of the region. While fresh water is plentiful as a result of heavy investment in desalinisation plants and subsidised supply, feed is largely imported. As a result, domestic production has been limited by the availability and cost of imported feed and the domestic supply of animals has been unable to satisfy demand.

Map 2: Percentage of total cash receipts from sale of sheep and lambs for live export 2007-08 to 2009-10, farms with greater than 100 sheep



Source: ABARES AAGIS data

Table 2. Australian live sheep exports (excluding breeding sheep), annual, no. head

	2007-08	2008-09	2009-10	2010-11	% of total 2010-11
Kuwait	971,969	923,870	953,587	1,153,765	40%
Bahrain	611,100	776,315	579,983	439,731	15%
Turkey				397,916	14%
Qatar	228,934	331,507	389,751	315,931	11%
Jordan	288,491	314,406	446,928	212,579	7%
Saudi Arabia	948,062	943,016	319,487	153,572	5%
United Arab Emirates	184,243	146,892	101,153	66,187	2%
Israel	60,834	11,000	35,400	55,000	2%
Oman	740,351	562,249	135,024	50,346	2%
other	34,988	54,691	93,990	67,215	2%
Total	**3,772,038**	**4,212,870**	**3,562,643**	**2,963,329**	

Source: ABS

The Middle East is an oil rich region whose population enjoys a high standard of living. Demand for live animals in the Middle East stems principally from religious and cultural preferences rather than a lack of refrigeration. Patterns of trade in sheep in the Middle East region shows a significant amount of intra-regional trade (see table 3). In particular, Saudi Arabia imports significant numbers of sheep from neighbouring countries.

Demand for live sheep is principally met through live imports from Australia and north Africa (Sudan). Table 4 shows 2009 live sheep imports for all significant Middle Eastern markets that Australia exports to. Sheep from north Africa are cheaper than those from Australia and have therefore been more attractive in the past few years given the increasing price of Australian sheep. However, one of the disadvantages of sheep from Africa is that they are less likely to be free of disease. In the past this has led to short term bans on livestock imports from the Horn of Africa because of transboundary disease risks, including rinderpest, foot and mouth disease and rift valley fever (MLA 2007). Thus, while the recent lower price for sheep from Africa has shifted demand away from Australian livestock, the consistent quality of Australia's product on the world market, along with its low disease status, has helped to maintain Australia's presence in Middle East markets.

Market interdependence is a significant feature of the Australian live sheep export industry. A large proportion of voyages unload animals at multiple ports, particularly in the gulf area of the Middle East. In 2010-11, 61 per cent of live sheep shipments unloaded at ports in more than one country (table 5). In 2009-10, this proportion was 90 per cent. In recent years, live sheep exports have been delivered via around 20 different routes. The relative importance of particular routes varies from year to year, but voyages unloading at a combination of Gulf States constitute a significant proportion of voyages each year. In 2010-11, the most important routes for feeder/slaughter consignments were Kuwait (single destination), Bahrain>Kuwait>United Arab Emirates and Bahrain>Kuwait>Qatar. These routes accounted respectively for 16 per cent, 15 per cent and 12 per

cent of total voyages made by sea in that year (table 6). These routes collectively accounted for 37 per cent of the total number of sheep shipped in 2010-11.

Information from Australian exporters suggest a key reason for multi-destination for voyages is that importing countries have a preference for smaller consignments at greater frequency compared to larger consignments at lower frequency. Given that in many instances exporters may require a minimum number of sheep per consignment in order to make shipments cost-effective, the ability to ship to multiple destinations can be a significant method used by exporters to balance their own needs with the preferences of importing countries.

As the demand for live sheep in the Middle East has increased over the past ten years, so too has the demand for sheep meat. The urban populations of many of the main importing countries are increasingly westernised and do not have the same demand for freshly slaughtered meat as do their rural counterparts. The demand for sheep meat has been met to a large extent by imports of frozen and chilled sheep meat from Australia, New Zealand, China, India, Pakistan, Uruguay and Sudan. Australia and New Zealand have historically been the largest two source markets for chilled and frozen sheep meat to the region.

In the Middle East, the absence of a cold chain is not as important an issue as it is in other destinations such as south east Asia. On average, per person incomes are higher because of the region's extensive oil resources. Similarly, the food distribution system is well developed, as is the general capacity of individuals to refrigerate fresh food. The preference for fresh meat stems more from religion and local customs than from the lack of a cold chain.

Table 3. Middle East intra-regional trade, 2009, no. head

EXPORTER	IMPORTER										
	Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	UAE	Yemen	Total
Bahrain								1,856			**1,856**
Egypt				3			23	1,793	6		**1,825**
Ethiopia				1,412				5,599	69,707	714	**77,432**
Jordan				2,140			8,415	82,171			**92,726**
Kuwait	2,274		208		19		2,951	20,798	12,505		**38,755**
Lebanon								15,276			**15,276**
Oman								800	1,645		**2,445**
Pakistan	1,400					900	180		89,595		**92,075**
Qatar	3,835					33		36,133	1,649		**41,650**
Sudan		655	25,709					2,830,829	4,507		**2,861,700**
Turkey					79,710						**79,710**
Total	**7,509**	**655**	**25,917**	**3,555**	**79,729**	**933**	**11,569**	**2,995,255**	**179,614**	**714**	**3,305,450**

NB: Exporting countries' reported data has been used here due to limitations with several Middle Eastern countries' data reporting.
Source: UN Comtrade

Table 4. Middle East imports of live sheep, 2009, no. head

Importing country	Exporting country	Quantity	*% of imports*
Bahrain	Australia	747,827	*99%*
	Kuwait	2,274	*0%*
	Pakistan	1,400	*0%*
	Qatar	3,835	*1%*
Bahrain Total		**755,336**	
Israel	Australia	23,400	*100%*
	Germany	104	*0%*
	Poland	5	*0%*
Israel Total		**23,509**	
Jordan	Australia	470,511	*88%*
	Kuwait	208	*0%*
	Rep. of Moldova	3,670	*1%*
	Romania	20,606	*4%*
	Russian Federation	14,062	*3%*
	Sudan	25,709	*5%*
Jordan Total		**534,766**	
Kuwait	Australia	948,271	*100%*
	Egypt	3	*0%*
	Ethiopia	1,412	*0%*
	Jordan	2,140	*0%*
Kuwait Total		**951,826**	
Oman	Australia	289,223	*100%*
	Pakistan	900	*0%*
	Qatar	33	*0%*
Oman Total		**290,156**	
Qatar	Australia	352,695	*97%*
	Egypt	23	*0%*
	Jordan	8,415	*2%*
	Kuwait	2,951	*1%*
	Pakistan	180	*0%*
Qatar Total		**364,264**	
Saudi Arabia	Australia	576,147	*16%*
	Bahrain	1,856	*0%*
	Egypt	1,793	*0%*
	Ethiopia	5,599	*0%*
	Jordan	82,171	*2%*
	Kuwait	20,798	*1%*
	Lebanon	15,276	*0%*
	Oman	800	*0%*
	Qatar	36,133	*1%*
	Sudan	2,830,829	*79%*
Saudi Arabia Total		**3,571,402**	

Table 4 continued …

Importing country	**Exporting country**	**Quantity**	***% of imports***
United Arab	Australia	130,312	*41%*
Emirates	Egypt	6	*0%*
	Ethiopia	69,707	*22%*
	Kazakhstan	7,068	*2%*
	Kuwait	12,505	*4%*
	Netherlands	109	*0%*
	Oman	1,645	*1%*
	Pakistan	89,595	*28%*
	Qatar	1,649	*1%*
	South Africa	20	*0%*
	Sudan	4,507	*1%*
United Arab Emirates Total		**317,123**	
Middle East imports from Australia		3,538,386	*50%*
Total Middle East		**7,109,260**	

NB: Exporting countries' reported data has been used here due to limitations with several Middle Eastern countries' data reporting. Importer data sometimes shows different trade flows. Notably, Saudi Arabia reports significant sheep imports from Djbouti, Syria, Georgia and Somalia and total imports of almost 4.2 million head for 2009. Oman shows significant imports from Somalia and total imports of 425,000 head..
Source: UN Comtrade

Table 5. Slaughter/feeder consignments, transported by sea

	2008-09	**2009-10**	**2010-11**
No. of Voyages	86	58	67
No. shipped, annual	3,866,779	3,173,286	2,793,592
Average no. loaded per voyage	47,573	45,052	43,036.6
No. multi-destination voyages[1]	51	52	41
% of voyages that are multi-destination	59%	90%	61%

[1] multi-destination voyages defined as voyages unloading in two or more destination countries
Source: AQIS

Table 6 Live sheep transported by sea, by voyage, 2010-11

	No. of Voyages	No. on voyage, annual	Average no. Loaded	Average no. port 1	Average no. port 2	Average no. port 3	Average no. port 4
Kuwait	11	194,565	17,688	17,600			
Bahrain>Kuwait> UAE	10	568,296	56,830	15,050	36,419	5,352	
Bahrain>Kuwait> Qatar	8	277,218	34,652	6,875	15,829	11,948	
Bahrain>Kuwait	6	262,893	43,816	14,500	29,316		
Saudi Arabia	6	158,335	26,389	25,735			
Turkey	6	51,396	58,566	58,566			
Other	*20*	*980,889*	*44,597*	*16,504*	*24,989*	*14,916*	*5,129*
Total 2010-11	**67**	**2,793,592**	**43,037**	**18,573**	**25,496**	**13,524**	**5,129**
No. multi-port voyages	*41*	*2,028,420*	*50,321*	*14,229*	*25,496*	*13,524*	*5,129*
% of voyages that are multi-destination	61%						

Source: AQIS

Economic contribution of the live sheep export industry

While the above discussion provides information on the characteristics of the live sheep industry it does not quantify the economic benefits provided by the industry. Several recent studies have attempted to quantify the contribution of the live sheep export trade to various Australian jurisdictions or to assess potential economic impacts of disruptions to trade. There have also been studies that have attempted to demonstrate that Australia would be better served by retaining live sheep domestically for processing and slaughter, rather than the value added from processing being gained by other countries. This section provides a summary and discussion of these recent studies.

1.11 Centre for International Economics

Earlier this year the Centre for International Economics released a study on the contribution of the Australian live export industry that was funded by LiveCorp and Meat and Livestock Australia (CIE, 2011[20]). The aim of this study was '[t]o estimate the contribution of the live export industry, … the potential impact of closing the live export trade on prices and quantities across the entire livestock industry.' The study considered the entire live animal export industry, but also provided estimates of results for the sheep export industry.

Key results of the study are that 'without' the live trade:

- [Nationally,] the price of lambs would have been 7.6 per cent or 12 cents per kilogram lower, while prices paid for older sheep would have been be 17.6 per cent or 14.6 cents per kilogram lower on a liveweight basis.
- Regional impacts especially in areas directly affected by the absence of the trade would be expected to be higher. In particular, it was estimated that 'prices in [Western Australia] would suffer falls of 42 per cent for older sheep; or a reduction in farm gate prices 46 cents per kilogram for older sheep. '
- Sheepmeat production would have been 100 kt cwe or 14.6 per cent higher, with the majority of this additional product likely to have been diverted to the price sensitive export markets.
- GVP each year would have been '$119 million or 6.0 per cent lower for the sheep industry. '

1.12 Department of Agriculture and Food, Western Australia

The Department of Agriculture and Food, Western Australia recently released a report on the importance of the live animal trade to Western Australia (DAFWA, 2011[21]). This report quantifies the sheep, beef and goat supply chains in WA and discusses which parts of these supply chains and regions are vulnerable to a loss of the live export trade. It provides a snapshot of the entire Western Australian sheep value chain (see diagram below). Given the importance of Western Australia to the live sheep trade it is considered useful to provide some key points from the study here.

Key points from the study included:

- Currently WA annually exports around 2.5 million live sheep, although in previous years it has exported over 4 million sheep.

[20] *CIE (2011) 'The contribution of the Australian live export industry'*, Report prepared for LiveCorp and Meat & Livestock Australia. This report can be viewed online at http://www.livecorp.com.au/Home.aspx

[21] DAFWA (2011) *'The economic importance to Western Australia of live animal exports'*, July.

- The more than 60 percent decline in the WA sheep population since the early 1990s has reduced the number of sheep available to be exported live. However, due to similarly pronounced reductions in sheep numbers elsewhere in Australia, the live sheep trade remains strongly dependent on WA.
- WA continues to supply around three-quarters of the national exports of live sheep.
- Prices paid for exported sheep remain strong, in spite of the appreciation of the Australian dollar.
- There are 6,074 businesses with sheep in WA and live sheep export generates income in the range of $175 million to $275 million.
- Sheep production occurs mostly in the higher rainfall southern parts of the WA agricultural region.
- The principal markets for these sheep are Middle Eastern countries. Many farmers value live export markets as they believe these markets enhance competition for the purchase of their sheep.
- The impacts on WA businesses of a termination or phased reduction in live animal trade depend on the rate of reduction, the importance of the live trade to the particular business and the importance of the trade to the region in which the business operates.
- Depending on the location and nature of the farm or pastoral business, the reductions in business profits [from a disruption to the live sheep export industry] are projected to range from minor to substantial. The sheep industry will face revenue reductions, mostly for farmers greatly reliant on profits from sheep production and who are locked into sheep production. However, many other farmers who engage in mixed-enterprise farming that includes sheep or cattle production may be able to transition to alternative enterprises and either lessen their losses or potentially gain, given current margins for some crops.
- The impacts on other participants in the supply chain are strongly linked to how farmers and pastoralists respond to any reduction or cessation in the live export trade. If farmers and pastoralists choose to exit the industry or reduce their animal production in response to likely lower prices that would follow a reduction in the live export trade, then the support industries and the abattoirs eventually will suffer through reduced throughput.
- Meat processors are beneficiaries in the near and medium term, but not necessarily in the long term if flock and herd sizes diminish as resources are switched into alternative land uses.
- The regional importance of sheep production and live sheep export trade in WA are examined. Three regions dominate the supply of sheep for live export; the Upper Great Southern and Lower Great Southern that are serviced by the Katanning saleyards and the Midlands that is serviced by the Muchea saleyards.

1.13 ACIL Tasman

ACIL Tasman released two reports in 2009, one commissioned by the RSPCA (ACIL Tasman, 2009a[22]), and the other commissioned by the World Society for the Protection of Animals (ACIL Tasman, 2009b[23]).

ACIL Tasman (2009a) aims to evaluate 'the whole of flock changes that would result from a cessation of the live export trade' in Western Australia. It claims to employ "an unconventional, yet very comprehensive, method for valuing the live export trade for sheep enterprise managers in WA". The study found that while in response to a cessation of the live animal trade adjustments would be required by WA sheep producers; they do not appear to be extensive compared to other structural

[22] ACIL Tasman (2009a) *'The value of live sheep exports from Western Australia'*

[23] ACIL Tasman (2009b) *'Economic analysis of Australian live sheep and sheep meat trade'*

adjustments already underway in the industry. The adjustment costs are about 3-4 per cent of the investment value of a ewe or wether, where increasing merino and cross bred prime lamb production is possible. Where switching to selling merino wethers earlier for slaughter or switching to prime lamb production is not available, the cost could be as high as 13 per cent of the value of a wether. The report claims that the cost of adjustment to a market where the live sheep trade is not available could be minimised by progressively phasing-out of live sheep exports. By phasing out the live sheep trade over a period of five years, the impact on the Australian economy would be a loss of $200 million.

ACIL Tasman (2009b) aims 'to analyse the economics and policy settings of the live sheep export trade from Western Australia and sheep meat trade, from both national and regional perspectives.' The report found that the continued existence of the live sheep trade is largely the result of externalities (both positive and negative) present in the sheep industry. The report considers that, were these externalities internalised, sheep producers would be likely to reduce live sheep exports. It suggests that the option of live sheep exports may be 'a sub-optimal investment decision from the viewpoint of the wider society'. Production decisions of Western Australian farmers have historically been influenced by various market distortions such as subsidies paid on the slaughter of live sheep in the Middle East, indirect support of the live sheep trade by Middle Eastern countries, and regulation in the Western Australian lamb processing market. The report also claims that 'Cessation of the live sheep trade could benefit the Australian economy – through an increase in the level of substitution between Australian live sheep and Australian processed sheep meat in the major importing countries. An increase in substitution would prevent importing countries seeking live imports from elsewhere and ensure that full value adding opportunities can be captured by the WA economy.'

In comparison to the CIE study, the ACIL Tasman study does not take full account of the likely price impacts from a cessation of the trade. These were found to be significant by the CIE and would indicate a substantial under-estimate of the impact by ACIL Tasman.

Characteristics of the Australian Goat Industry

Industry overview

Exports of live goats accounted for 5 per cent of total Australian goat turnoff (slaughter and live export) and 14 per cent of the total gross value of goat industry (meat and live exports) production in 2009–10. ABS data indicates that 512,745 goats were held on-farm at June 30 2010. 70 per cent of these were located in New South Wales. However, this number does not account for feral goats which may be harvested by producers for both slaughter and live export. In 2010-11 Australia exported 68,282 goats, valued at $9.7 million.

Regional importance of live export industry

South Australia dominates Australian live goat exports. Around 34 per cent of all goat exports were shipped from South Australian ports (including air and sea freight) in 2010-11. However, compared to sheep exports, there is also a more even distribution of exports from a number of other States. Of note, significant numbers are also shipped from ports in Queensland (21 per cent), New South Wales (19 per cent) and Victoria (8 per cent).

Table 1 Australian live goat exports, by state, no. head

	2008 -09	2009 -10	2010 -11	% of total 2010-11
NSW	35,289	16,238	13,243	19%
NT	485	1,557	814	1%
QLD	10,715	13,563	14,097	21%
SA	28,230	40,271	23,339	34%
VIC	7,765	8,637	11,254	16%
WA	5,023	15,044	5,535	8%
Total	**87,507**	**95,310**	**68,282**	**100%**

Source: ABS

Limited information on goat sales is collected in ABARES Australian Agricultural and Grazing Industries Survey (AAGIS) and sale of goats for live export is not separately identified in AAGIS. However, from the information available, broadacre farms account for the majority of goat sales in Australia, including almost all sales of feral goats.

An average of around 890 broadacre farms sold goats over the three years ending 2009-10 with receipts from goats accounting for an average 13 per cent of the total cash receipts of these farms and around 20 per cent of total cash receipts of farms selling goats in Western New South Wales, Central Northern Victoria and the Southern Rangelands of Western Australia. Around 46 per cent of the total value of goat sales by broadacre farms over the three years ending 2009-10 was from farms located in pastoral areas of Western New South Wales, (table 2).

Table 2 Sale of goats by broadacre farms, by region

	Farms selling goats	Contribution to total gross value of goat sales	Contribution of goats to of average farm cash receipts
	no.	%	%
New South Wales	**590**	**56**	**13**
Western New South Wales	200	46	20
Central West	200	11	7
Tablelands	100	2	5
Victoria	**120**	**3**	**10**
Wimmera	100	1	5
North Central	40	2	20
Queensland	**80**	**14**	**13**
Central and Western	20	1	2
Darling Downs/Central Highlands	50	10	10
South Australia	**30**	**6**	**5**
Northern Pastoral	10	5	9
Western Australia	**70**	**21**	**19**
Southern Rangelands	60	22	19
Australia	**890**	**100**	**13**

Source: Australian Agricultural and Grazing Industries Survey (AAGIS)

Export markets

Table 3 shows Australian live goat exports by destination. Malaysia is by far the largest market, accounting for 85 per cent of the total volume exported in 2010-11. Singapore and the Philippines are the next largest markets.

Australia is the key supplier of live goats to all its major markets (see table 4). In 2009, the most recent year for which data is available, Australia supplied 89 per cent, 99 per cent and 100 per cent of Malaysia's live goat imports , the Philippines and Singapore, respectively.

For the three calendar years 2008-2010 on average 98 per cent of goat exports travelled by air, with 2 per cent going by sea. Breeder goats are almost always sent by air: in 2009 and 2010 there were no breeders sent by sea.

In addition to exporting live goats Australia also exports goat meat to overseas markets. In 2010-11 Australia exported almost 27,000 of goat meat, valued at $125 million. Queensland and Western Australia are the major exporting states of goat meat, each accounting for around $50m of exports in 2010-11, or around 40 per cent of the total value (table 5).

Table 3 Australian live goat exports, by destination, no. head

	2008 -09	2009 -10	2010 -11	*% of total exports*
Argentina		36		*0%*
Brunei Darussalam	6,109	1,557	534	*1%*
Malaysia	73,863	84,678	58,163	*85%*
New Zealand	6	117		*0%*
Philippines	2,765	2,089	54	*0%*
Singapore	4,640	6,795	8,718	*13%*
Thailand			341	*0%*
Turkey	58		449	*1%*
United Arab Emirates	66			*0%*
United States of America		38	23	*0%*
Total	**87,507**	**95,310**	**68,282**	

Table 4. Sources of live goat imports in key Australian markets, no. head

Importing country	Exporting Country	Total (no. head)	% of total imports
Malaysia	Australia	73,753	89%
	Cyprus	496	1%
	Indonesia	8,229	10%
	New Zealand	164	0%
	South Africa	179	0%
Malaysia Total		*82,823*	
Philippines	Australia	575	99%
	USA	4	1%
Philippines Total		*579*	
Singapore	Australia	27,672	100%
	New Zealand	135	0%
Singapore Total		*27,807*	

Source: UN Comtrade

Table 5 Australian goat meat exports, by state

	Quantity (shipped weight)			Value		
	2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
	kt	kt	kt	$m	$m	$m
NSW	**3.5**	**2.9**	**0.0**	**12.1**	**10.7**	**0.2**
QLD	**7.7**	**8.7**	**10.9**	**28.7**	**35.1**	**51.9**
SA	**0.1**	**1.5**	**3.2**	**0.2**	**6.5**	**15.8**
TAS	**-**	**0.0**	**-**	**0.0**	**0.2**	**0.0**
VIC	**6.3**	**10.4**	**10.8**	**22.1**	**39.1**	**50.0**

WA	**2.6**	**3.8**	**1.8**	**8.5**	**12.5**	**6.8**
Total	**20.2**	**27.4**	**26.7**	**71.6**	**104.1**	**124.6**