

# Australian Beef and Lamb

SAFE, HEALTHY AND DELICIOUS



[www.mla.com.au](http://www.mla.com.au)

  
اللحوم والماشية الأسترالية  
MEAT & LIVESTOCK AUSTRALIA

# Australia's

# Beef & Lamb

# Safety Systems

**Australia is one of the world's largest beef and lamb exporters, supplying over 100 markets globally. The Australian livestock and meat industry is committed to providing beef and lamb that is of exceptional quality, with high nutritional value. The quality of our products complements our focus of meeting the demands of our international customers, including requirements for food safety, integrity and traceability.**

Throughout the development of Australia's beef and lamb industry, producers, processors and government have worked together to respond to the changing expectations of both domestic and international markets. This has included diversification of breeds, the adoption of sustainable animal husbandry practices, the development of meat quality grading processes and stringent standards and systems, all of which ensure food safety, integrity and traceability of the product throughout the supply chain.

# Overview of

# Australia's Beef & Lamb Safety Systems

## FARM

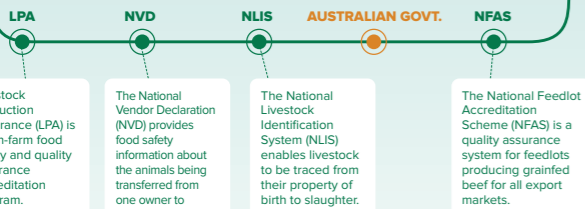
### LIVESTOCK

Unique IDs for farms and each head of livestock, government regulated production and husbandry systems, accurate record keeping along with third-party audits ensures your meat quality is guaranteed right from source.



#### LIVESTOCK INSPECTION

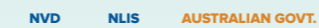
All animals presented for slaughter undergo ante-mortem inspection.



## PROCESSING

### SLAUGHTER/CHILLING

Each animal is inspected before and after slaughter and every carcass is identified. All carcasses can be traced. Company and Australian government monitoring systems inspect plant hygiene, offal, carcass and residues.

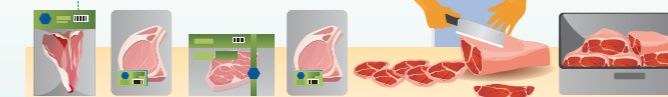


### BONING

Before being placed in cartons, the meat goes through hygiene testing as well as product specification inspections. Each carton is then barcoded to identify contents and track journey.



GSI barcode system that specifies the packing facility, the time and date of packing and the contents of the carton. The use of the GSI barcode system ensures that traceability is maintained from packing of the product up to point of reception by the wholesaler.

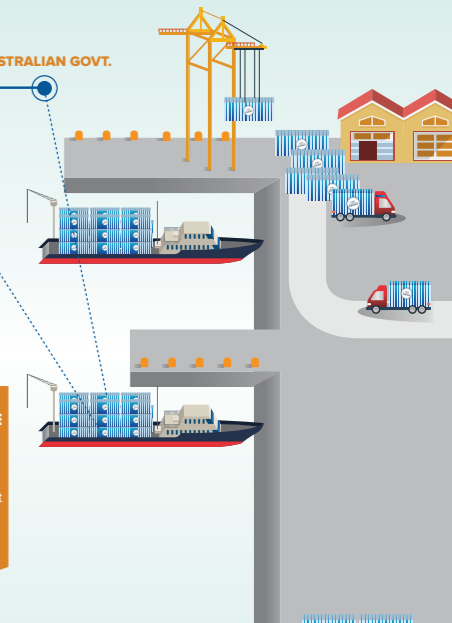


AGAHP

## DISTRIBUTION

### DISTRIBUTION

This dispatch process is authenticated by the Australian government through the issuance of export certificates as well as container sealing. Temperature is monitored at all times till the meat leaves the supermarket shelves.



## Company Monitoring

Inspection before Slaughter

Plant Hygiene Testing

Carcass Hygiene Testing

Product Specification Inspection

Carton-Product Hygiene Testing

Temperature Monitoring

# Food safety, integrity and traceability

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The cornerstones of Australia's beef and lamb industry are food safety, integrity and traceability in all sectors including farms, feedlots, transportation, sale yards, processing plants, independent boning facilities and export distributors.

Food safety, integrity and traceability are all guaranteed through the range of standards and systems that have been adopted by industry. These standards and systems are based on an assessment of risk and sound science to meet the requirements of our customers both domestically and internationally. Furthermore, key aspects of these systems are independently audited for verification.

## FOOD SAFETY

The safety of Australian beef and lamb is ensured through a number of mechanisms.

The Australian Government and industry established SAFEMEAT, a joint partnership consisting of representatives from government and industry, to ensure that all red meat products achieve the highest safety and hygiene standards from the farm to the consumer. More information can be found about SAFEMEAT at [www.safemeat.com.au](http://www.safemeat.com.au)

Furthermore, the Meat & Livestock Australia (MLA) Food Safety Program is designed to assist all participants in the Australian red meat industry build expertise in food safety management and implement new, scientifically proven technologies.

## INTEGRITY

The integrity of Australian beef and lamb is assured through the commitment by all participants of the supply chain to provide products of consistent quality with accurate descriptions of the systems used in the production and processing of sheep and cattle and the meat products that these systems produce. The commitment is backed up with sophisticated systems to ensure customers can have complete confidence.

## TRACEABILITY

The ability to trace products from their origin has been increasingly sought after by domestic and international customers. Australia has developed rigid systems to ensure that the traceability of its livestock and red meat is fail proof. Product traceability is a requirement under Australian state and territory legislation.





# On Farms

# and at Feedlots

The Australian beef and lamb industry has a number of programs in place from the beginning of the supply chain to protect product integrity and ensure traceability and food safety. These programs have been developed in partnership with the Australian industry, government and other relevant organisations and are independently audited.

The systems in place on the farm and at the feedlot that contribute to the integrity of Australian beef and lamb include:

- Animal Health Programs
- Livestock Production Assurance
- National Feedlot Accreditation Scheme
- LPA National Vendor Declaration and Waybill
- National Livestock Identification System
- Pasture-fed Cattle Assurance System
- Feed and fodder vendor declarations
- Agricultural and veterinary chemical registration and control
- Export slaughter intervals and withholding periods
- Animal welfare and environmental management

## ANIMAL HEALTH PROGRAMS

The Australian beef herd and lamb flock have an enviable health status.

Australia is internationally recognised as being free of the significant exotic and notifiable diseases of cattle and sheep such as Foot and Mouth Disease (FMD), Rinderpest, Contagious Bovine Pleuro-pneumonia, tuberculosis and brucellosis and being at a 'negligible' risk of Bovine Spongiform Encephalopathy (BSE). Considerable monitoring of animal diseases is carried out in the field and at the processing plants to verify that this remains the case. The programs in place to control existing diseases are managed nationally.

More information on animal health can be found at [www.animalhealthaustralia.com.au](http://www.animalhealthaustralia.com.au).



## LIVESTOCK PRODUCTION ASSURANCE



Livestock Production Assurance (LPA) is an on-farm food safety and quality assurance accreditation program.

LPA enables farmers to comply with the stringent requirements necessary when supplying animals for human consumption.

The LPA program was developed in accordance with hazard analysis and critical control point (HACCP) principles as the on-farm food safety program for extensively raised cattle and sheep. Independent audits, both random and targeted, are conducted to ensure the program's integrity is maintained.

The LPA on-farm food safety standard focuses on food safety management and consists of five elements:

1. Assessing risks that may occur on the farm
2. The safe and responsible use of animal treatments
3. The safe and responsible use of fodder crop, grain and pasture treatments, and stock foods
4. Dispatching of livestock that are suitable for sale
5. Recording of livestock transactions and movements

More information on the LPA program can be found at [www.mla.com.au/lpa](http://www.mla.com.au/lpa)



## NATIONAL FEEDLOT ACCREDITATION SCHEME



A feedlot is an intensive production system where the cattle are fed a prepared feed ration for a specific length of time depending on the final customer requirements.

The National Feedlot Accreditation Scheme (NFAS) is a quality assurance system for feedlots producing grain-fed beef for all export markets.

Health and production controls for grain-fed cattle are applied through stringent checks of feed and water quality and safety. Strict regulations for the use of chemicals are adhered to, with monitoring for veterinary treatments and inspection for pesticides or trace metals.

Under the scheme, feedlots are independently audited annually to ensure compliance with animal welfare, environment, biosecurity, food safety and product integrity codes and legislation. Animals sold under NFAS must be accompanied by an NFAS Delivery Docket which includes a declaration from the vendor that the cattle have been raised in accordance with the program requirements.

NFAS requirements are continually updated as developments in legislation, codes of practice, guidelines, technology, best management practice and science occur.

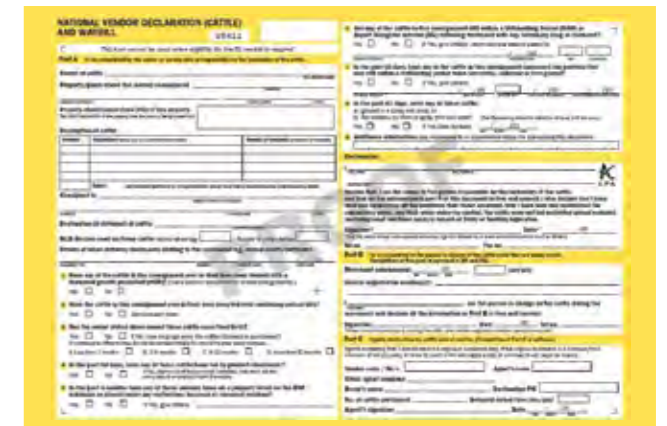
More information on the NFAS can be found at [www.feedlots.com.au](http://www.feedlots.com.au).



## LPA NATIONAL VENDOR DECLARATION AND WAYBILL

When livestock are transferred, either from one property to another, between owners or to a processing facility, traceability, as required through the LPA and NFAS programs is provided through the use of the LPA National Vendor Declaration and Waybill (LPA NVD/Waybill).

The LPA NVD/Waybill contains information about the location of the property, the vendor, the unique Property Identification Code (PIC), exposure of the livestock to agricultural and veterinary chemicals, and grazing and supplementary feeding history. The LPA NVD/Waybill is a declaration that the vendor has met the requirements of LPA.



## NATIONAL LIVESTOCK IDENTIFICATION SYSTEM



The National Livestock Identification System (NLIS) enables livestock to be traced from their property of birth to slaughter.

Livestock must be identified with an approved radio frequency NLIS device (such as an ear tag or rumen bolus) before they leave their property of birth. These devices allow animal movements to be recorded in a central, national database.

NLIS provides whole-of-life traceability for biosecurity, food safety and product integrity purposes.

NLIS is underpinned by state and territory legislation which forms the regulatory framework for the system.

More information about NLIS can be found at [www.mla.com.au/nlis](http://www.mla.com.au/nlis).

## AGRICULTURAL AND VETERINARY CHEMICAL REGISTRATION AND CONTROL

Australia has a comprehensive system of registration and control of agricultural and veterinary chemicals, which include veterinary medicines.

An important aspect of this control is the comprehensive food safety and market assessments of any chemical proposed for use on or near livestock. Those assessments must also include the establishment of withholding periods and export slaughter intervals.

More information about agricultural and veterinary chemical registration and control can be found on the Australian Pesticide and Veterinary Medicines Authority (APVMA). [www.apvma.gov.au](http://www.apvma.gov.au)

## PASTUREFED CATTLE ASSURANCE SYSTEM



The Pasture-fed Cattle Assurance System (PCAS) is an assurance program that enables the extensive beef cattle industry to validate claims relating to pasture-fed or grass-fed production methods.

PCAS is underpinned by standards which govern the on-farm feed requirements and traceability of the cattle as well as pre-slaughter handling practices which influence eating quality. The PCAS Standards also include two optional modules to support claims that the animals have never in their lives been treated with antibiotics and hormone growth promotants (HGP).

If a producer wants to make claims relating to pasture-fed or grass-fed production methods, they can be certified under PCAS. This requires the producer to keep good records about how the cattle were raised, have an independent audit carried out and provide a declaration when animals are consigned for sale using a Certified Pasture-fed label claim.

More information about PCAS can be found at [www.certifiedpasturefed.com.au](http://www.certifiedpasturefed.com.au)

## FEED AND FODDER DECLARATIONS

Stock feed and fodder vendor declarations and commodity vendor declarations may be received when stock-feed is bought by a livestock producer.

These declarations are important tools in ensuring no livestock are exposed to feeds, including by-products, containing unacceptable contamination, specifically any food containing animal products and/or unacceptable chemical residues.

More information about feed and fodder declarations can be found at [www.mla.com.au/Meat-safety-and-traceability/On-farm-risk-management/Feed-and-fodder-declarations](http://www.mla.com.au/Meat-safety-and-traceability/On-farm-risk-management/Feed-and-fodder-declarations)

## EXPORT SLAUGHTER INTERVALS AND WITHHOLDING PERIODS

Consumers demand that products from farms be free of unacceptable chemical residues.

Australia's ability to meet these stringent demands underpins our excellent agricultural and food safety reputation. A withholding period (WHP) is the time that must pass between a chemical application, including through the feeding of treated feed, and the slaughter, collection, harvesting or use of the animal commodity for human consumption. Chemical WHPs are mandatory for the domestic market and are included in the label information of all registered agricultural and veterinary chemical products.

An export slaughter interval (ESI) is the period that must lapse between chemical application to livestock and their slaughter for export. An export grazing interval (EGI) is the minimum time interval between application of a chemical to a crop or pasture that is continually grazed and slaughter.

Producers must provide a declaration that the animals they consign to slaughter meet the ESI, EGI and WHP on the LPA NVD/Waybill that accompanies those animals. They also need to be able to provide evidence of management practices that minimise and eliminate risks of livestock residue contamination, through keeping good records of all on-farm chemical use.

More information about chemical residues can be found at [www.mla.com.au/Meat-safety-and-traceability/On-farm-risk-management/Residues](http://www.mla.com.au/Meat-safety-and-traceability/On-farm-risk-management/Residues)



## ANIMAL HUSBANDRY AND ENVIRONMENTAL MANAGEMENT

The quality of Australia's beef and lamb is also supported by excellent animal husbandry practices, which ensure a high level of animal welfare and environmental management.

In turn, this helps guarantee that Australia's beef and lamb products are of outstanding quality, as animals are raised in environments with minimal stress and contaminants.

The Australian beef and lamb industry undertakes considerable research and development activities at the farm and feedlot level to ensure continual improvement in the areas of product quality and consistency of supply. These activities include research into grazing practices, genetic improvement, efficient feeding regimes and animal welfare.

Since 1990 it is estimated that emissions from producing beef in Australia have decreased by 5.3% for each kilogram. Better genetics and feed quality have contributed to the higher efficiency of production with lower emissions of methane from digestion.

Australia is investing significantly in research and development to improve the environmental management within livestock industries. Research into issues such as waste management, farming systems, genetics and food alternatives, will help Australia further reduce emissions and sustainably supply red meat for customers around the world.

More information about can be found at [www.mla.com.au/Cattle-sheep-and-goat-industries/Environment](http://www.mla.com.au/Cattle-sheep-and-goat-industries/Environment) and [www.target100.com.au](http://www.target100.com.au)



# At Saleyards and During Transport

As livestock leave the farm or the feedlot, their movement is governed by a number of programs and systems to ensure the integrity, traceability and welfare of the cattle and sheep and therefore, the beef and lamb produced.

The programs that are in place at the sale yard and during transportation include:

- Truck Care
- National Saleyard Quality Assurance
- National Livestock Identification System





## TRUCKCARE

TruckCare is a voluntary quality assurance program for livestock transportation and is focused on maximizing animal welfare, meat quality and meat safety.

TruckCare is built around the quality assurance principles contained in international standards and transporters of livestock are independently audited against the TruckCare standards. It also uses HACCP to manage risks.

More information about TruckCare can be found at [www.alra.org.au/truckcare](http://www.alra.org.au/truckcare)

## NATIONAL SALEYARDS QUALITY ASSURANCE PROGRAM

The National Sale-yard Quality Assurance (NSQA) program is based on The National Standard for the Construction and Operation of Australian Sale-yards. The Standard addresses the key quality issues/hazards within the sale-yard sector including food safety, product quality, and stock identification and traceability.

Sale-yard accreditation under the NSQA program allows for the verification of a commitment to meet and maintain recognised national standards in the handling of livestock through all stages of the prime market and store/restocked market. More information about NSQA can be found at [www.ausmeat.com.au/audits-accreditation/saleyards-nsqa.aspx](http://www.ausmeat.com.au/audits-accreditation/saleyards-nsqa.aspx)





# During Processing and Distribution

The final stage in the red meat and livestock supply chain in Australia involves processing and distribution. During this stage, rigorous systems, standards and controls are in place to ensure that safe, hygienic and suitable products are provided to customers.

These systems include the following:

- Animal welfare
- The Australian Standard
- Australian Government Department of Agriculture
- In-plant product traceability
- Meat Transfer Certificates
- Australian Government Health Certificate
  - Product Hygiene Indicators
  - National Residue Survey
- Distribution and shelf-life

## ANIMAL WELFARE

Processing facilities are required under legislation to ensure the welfare of animals from receipt to slaughter and throughout the slaughter process.

In order to meet regulatory requirements and ensure a high level of animal welfare, the processing industry developed an independently audited certification program that provides the necessary assurances to customers that animals are treated humanely from the time they arrive at the facility through until they are processed.

For further information visit [www.amic.org.au/content\\_common/pg-aawcs.seo](http://www.amic.org.au/content_common/pg-aawcs.seo)

## THE AUSTRALIAN STANDARD

All processing facilities operate under the Australian Standard (AS) for hygienic production and transportation of meat and meat products for human consumption (AS4696:2002) which is designed to ensure that meat for human consumption is safe and wholesome.

Identification, traceability and maintenance of product integrity are also requirements of the Australian Standard. The Standard emphasises risk assessment and risk management through the application of the HACCP principles.

All facilities are required to have a written quality/food safety system that is approved and audited by the government controlling authority.

## AUSTRALIAN GOVERNMENT DEPARTMENT OF AGRICULTURE

Registered export meat processing facilities in Australia operate under the Export Control Act 1982, regulated by the Department of Agriculture.

Registration and supervision was formerly provided by the Australian Quarantine Inspection Service (AQIS), an operating unit of the Department of Agriculture Fisheries and Forestry (DAFF), now the Department of Agriculture and Water Resources (DAWR). The Department of Agriculture regulates through the Act, subordinate regulation and the Export Control (Meat and Meat Products) Orders 2005 (the Orders).

The Orders govern all aspects of facility management, quality systems, traceability, product safety and integrity through to export. Department of Agriculture veterinary officers are present in processing facilities to:

- Conduct animal health inspections prior to slaughter;
- Verify the company daily preoperational hygiene inspections;
- Verify the effectiveness of quality assurance programs and meat safety throughout the production process; and
- Supervise post mortem inspections to ensure the safety and suitability of products for human consumption.

The Department of Agriculture also employs senior veterinary officers to conduct audits of facilities.

More information on the Department of Agriculture can be found at [www.agriculture.gov.au](http://www.agriculture.gov.au)

## IN-PLANT PRODUCT TRACEABILITY

When cattle and sheep are received at the processing facility, the NLIS devices and LPA NVD/ Waybills are checked to ensure that animals are identifiable and that any risks associated with those animals can be managed.

Meat and offal packed into cartons are labelled with a unique label that uses the GS1 barcode system and that specifies the packing facility, the time and date of packing and the contents of the carton. The use of the GS1 barcode system ensures that traceability is maintained after slaughter of the animal up to the point of distribution.

When carcasses or cartons of product are moved from one facility to another they are accompanied by an official Meat Transfer Certificate issued under the general supervision of the Department of Agriculture that specifies the sending and receiving facilities, the quantity of product, market eligibility, and may also include any security seals used on the transport vehicle.



## AUSTRALIAN GOVERNMENT HEALTH CERTIFICATE

Once the meat is ready for export, the processing facility electronically requests a Health Certificate from the Department of Agriculture.

The Health Certificate states that beef and lamb was processed in a hygienic manner and was derived from animals which have been found by ante-mortem veterinary inspection to be free from disease and by post-mortem inspection to be fit for human consumption. The Health Certificate is only issued if the meat complies with both the Australian and any additional importing country requirements.

The Health Certificate includes information on the exporter, importer, processing facility, boning room, a description of the product including quantities, container marks/numbers, official container seal number, vessel or aircraft, the port of loading and discharge and any additional declarations that are required by the market. The Health Certificate is printed on security paper and guarantees that both Australian and importing country requirements have been met. In some cases, Health Certificates are provided directly to importing country authorities through secure electronic means.

## MONITORING PROGRAMS

In addition to the activities undertaken within the supply chain, the Australian beef and lamb industry has implemented several assessment and monitoring programs, managed by the Department of Agriculture, to provide verification of food safety.

These include:

- Product Hygiene Indicators
- National Residue Survey

### PRODUCT HYGIENE INDICATORS

The Product Hygiene Indicators (PHI) were developed to monitor the performance of slaughter and boning facilities against the outcomes required by the Australian Standard. Under the PHI program, objective measures of performance (Key Performance Indicators or KPIs) are collected by industry and are verified by the Department of Agriculture and are used to monitor hygienic performance at individual facilities.

KPIs include both visual and microbiological measurements of process and product hygiene. One KPI is performance in generic E. coli and Salmonella monitoring (ESAM). Under ESAM, carcass surfaces of all species of livestock slaughtered in Australia for export are tested for aerobic plate count, generic E. coli and Salmonella.

### NATIONAL RESIDUE SURVEY

The National Residue Survey (NRS) is an important part of the Australian Government program to manage the risk of chemical residues and environmental contaminants in agricultural products and meat producing animals. The purpose of residue monitoring is to facilitate the testing of animal products for pesticide and veterinary medicine residues and environmental contaminants.

Samples are collected randomly by government veterinarians throughout Australia based on processing volumes and agreements with importing countries. Thousands of meat samples are tested each year for a large number of chemicals by methods sensitive enough to detect very low concentrations. Appropriate authorities are contacted when chemicals are detected at levels approaching the allowable limits, so that corrective action can be taken and, where required, ensure the removal of affected product from the food chain

## DISTRIBUTION AND SHELF-LIFE

Once the beef and lamb has been processed, the temperature of the meat is quickly reduced to an optimal storage temperature that is maintained until the product reaches the intended market.

Meat is transported between establishments and to ports under active refrigeration to ensure the integrity and safety of the product and prolong its shelf-life.

The shelf life of chilled product is dependent upon the initial quality of the meat (pH, colour and microbiological quality), as well as adequate vacuum packaging and temperature control during distribution. If the meat is appropriately packaged and if temperature is regulated within the optimum range, chilled beef can have a shelf life of up to 20 weeks and chilled lamb can have a shelf life of up to 14 weeks.

Meat processors are required to verify the shelf life of their products.

## MLA FOOD SAFETY PROGRAM

The MLA Food Safety Program fosters innovation and expertise in food safety throughout the Australian red meat industry.

This initiative is designed to ensure the sustainability of the industry and to assist companies along the supply chain implement new, scientifically proven technologies.

The objective of the Food Safety Program is to develop programs in industry that:

- Improve the understanding of foodborne hazards.
- Evaluate and validate control procedures and safety practices.
- Assist industry with adoption of new technologies and processes.



# Supporting Agencies

The Australian beef and lamb industry is supported by the following agencies in its food safety, integrity, traceability and welfare-based approach to beef and lamb production:

## AUSTRALIAN PESTICIDE AND VETERINARY MEDICINES AUTHORITY

The Australian Pesticide and Veterinary Medicines Authority (APVMA) is an Australian Government statutory authority established in 1993 to centralise the registration of all agricultural and veterinary chemical products into the Australian marketplace. All agricultural and veterinary chemicals used in Australia are required by law to be registered by the APVMA.

The APVMA evaluates, registers and regulates agricultural and veterinary chemicals in Australia up to the point of sale. The state and territory government agencies are responsible for the control and use of these chemicals.

[www.apvma.gov.au](http://www.apvma.gov.au)

## ANIMAL HEALTH AUSTRALIA

Animal Health Australia (AHA) is a not-for-profit public company established by the Australian Government, state and territory governments and major national livestock industry organisations. AHA's role is to facilitate improvements in Australia's animal health policy and practice in partnership with the livestock industries, governments and other stakeholders.

[www.animalhealthaustralia.com.au](http://www.animalhealthaustralia.com.au)

## LIVESTOCK BIOSECURITY NETWORK

The Livestock Biosecurity Network (LBN) helps ensure farmers and farming organisations are prepared for and understand their role in the event of exotic disease incursions or the spread of endemic diseases. This includes disease surveillance and detection, reporting and response.

The LBN works to increase farmers, and farming organisations, understanding of animal welfare issues, biosecurity, emergency animal disease responses and disease surveillance.

[www.lbn.org.au](http://www.lbn.org.au)

## STATE/TERRITORY GOVERNMENT AGENCIES

In Australia, state and territory government agencies are responsible for developing and enforcing legislation to ensure that notifiable animal diseases (including those diseases notifiable to the World Organisation for Animal Health (OIE) are notified.

These agencies may also have the responsibility to assist livestock producers become sustainable, more efficient and productive.

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