





PARTNERS FOR PROGRESS

The Australian lamb industry has been more than 200 years in the making. Foundations laid many years ago have helped it evolve into the dynamic and progressive entity it is today. The combined integrity of our farmers and processors, along with the advantages of an unspoiled environment, has underpinned Australia's reputation for producing some of the highest quality lamb available. Australian lamb is certainly a product of its environment.



THE POPULARITY OF LAMB

As lamb's popularity continues to grow globally, Australian lamb stands out for its quality and flavour. As tastes and the need for greater variety continue to evolve, Australian lamb is poised to meet the demand with an extensive range of cuts and product lines, all raised and processed to some of the strictest standards on earth.

With retail and foodservice operators requiring naturally raised, free-range, pasture-raised, grassfed, high-quality, table-ready lamb with no added hormones, we invite you to make Australian lamb part of your specifications. All Australian lamb is raised to those standards.

This guide covers the most commonly requested information about our extensive range of lamb items. More detailed technical information can be found in the Handbook of Australian Meat, available through MLA's office. Give your customers quality and options that are over and above, with lamb from the land down under.



WHY BUY AUSTRALIAN LAMB

The Australian lamb industry has a long history of producing safe, quality lamb for customers around the world. We take pride in the meticulous standards that have resulted in one of the world's highest animal health statuses, not to mention our extensive traceability program. The following are just a few of the reasons Australian lamb stands out in the global marketplace.

ADVANCED FARM MANAGEMENT AND SUSTAINABILITY

The Australian meat processing sector is a world leader in lamb dressing and fabrication. Australian packing plants employ the latest technologies to ensure continued improvement in production efficiency, without sacrificing superior levels of meat safety.

Australian sheep and lamb producers are recognised around the world for their animal husbandry and farm management techniques. The Australian livestock industry takes pride in its genetics and is at the forefront of technological advancements in livestock production efficiency. Australian producers are progressive in the areas of farm and pasture improvement and water management.

The Australian meat and livestock industry makes an important contribution to sustainability—environmental, economic and social. The focus on the environmental sustainability of the industry covers key areas of emissions reduction, water use and land management that are important not only for the environment but also for producing nutritious, high quality lamb. The meat industry, through Meat & Livestock Australia and in collaboration with the Australian government, invests around \$12 million annually in research and development to better understand the environmental impact of meat production and further improve the environmental performance of the industry.

In Australia, lambs are mostly raised on open pasture in the South of the country. Our natural production systems and commitment to continuous improvement have led to Australian producers being internationally recognised for producing some of the best lamb, while also leading the way in environmental farm practices.

Australian producers understand that protecting and improving our natural resources is vital to the long-term sustainability of their business and the environment. Across the country many livestock producers manage weeds, pests and feral animals: help to maintain biodiversity: and reduce the risk of destructive bushfires. They implement a variety of efficient water management measures in their grazing systems, including maintaining healthy soils with adequate nutrients, minimising run-off through vegetation management, monitoring the frequency and intensity of grazing and allowing pastures to rest. Taken together, these measures ensure the health of the soils and pasture. Australia's producers are balancing the needs of the grazing animal, the pasture and the environment.

FAST FACT

is investing in research and development to establish practical on-farm options for reducing livestock methane emissions. Research includes investigating strategies for reducing methane production from sheep through altering their diet and studying whether animals can be bred to produce less methane









ON TARGET FOR A SUSTAINABLE AUSTRALIAN LAMB INDUSTRY

Australian sheep producers are proactively meeting the sustainability challenge by developing the Target 100 initiative to advance sustainable practices and ensure a sustainable food supply for generations to come.

Target 100 is made up of 100 research and development projects that focus on environmental sustainability and animal welfare, providing producers with the research to implement best-practice techniques on their properties. Target 100 also provides lamb consumers with an opportunity to talk directly to the farmers producing their lamb via social media and other means.

To see what individual sheep producers are doing on their properties to become more sustainable visit www.targetl00.com.au.

A MEAT PROCESSING LEADER

The Australian meat processing sector is a world leader in lamb dressing and fabrication. Australian processing plants employ the latest technologies to ensure continued improvement in production efficiency, without sacrificing superior levels of meat safety.

A VARIETY OF PRODUCTS FOR EVERY NEED

Whether you require restaurant-ready or retail cuts ideally suited to your operation, this product guide will help you find items to suit your every need.

The Australian lamb industry also caters to the needs of different cultures, with the majority of Australian processors producing Halal lamb and mutton guaranteed to adhere to Islamic laws.

No matter what you require for your discerning customers, whether grassfed or organic, and with no added hormones or antibiotics, the Australian lamb industry has the right product for you.

AN ENVIABLE ANIMAL HEALTH STATUS

Australia's animal health status is arguably one of the highest in the world. We are recognised as being free of all major epidemic diseases of sheep, including Foot and Mouth Disease (FMD). We have also taken a global leadership role by enacting legislation to prevent the feeding of meat and bone meal to ruminants and have implemented disease surveillance programs in line with international standards to verify this ban.

As a result of these programs and our strict quarantine regulations, Australia is one of only a few in the world to be declared a 'Negligible Risk' country of Transmissible Spongiform Encephalopathies (TSE) by the World Organisation for Animal Health.

The Australian government and meat industry continue to zealously guard our enviable status with programs that have been in place for decades to maintain our superior standing.



ANIMAL HEALTH AND WELFARE

The Australian sheep industry is committed to the highest level of animal welfare and the humane treatment of livestock. Our mission is to ensure acceptable animal welfare standards are implemented and effectively verified.

- In the Paddock Producers work around the clock to ensure their animals have feed, water and shelter and are protected from predators and disease. As part of a continuous improvement program in animal welfare, the sheep industry continues to invest in research projects and provide practical tools, knowledge and best practices to farmers. The industry's on-farm animal welfare strategy, managed by Meat & Livestock Australia (MLA) and funded by sheep and cattle producers, is a comprehensive plan to improve animal welfare standards while maintaining productivity.
- How Animal Welfare is Governed in Australia Livestock processing is conducted in accordance with national laws and international requirements, and enforced accordingly by state, territory and commonwealth inspectors to ensure high standards of animal welfare are maintained at all times.
 - Codes of practice defining acceptable welfare practices for livestock husbandry and transport have been developed for producers to follow. The codes of practice for sheep are currently being updated and are under public consultation. More information can be found at www.animalwelfarestandards.net.au.
- 3. Transport The road transport of livestock in Australia is regulated under state and territory road transport and animal welfare legislation. The new Australian Standards and Guidelines for the Welfare of Animals – Land Transport of Livestock are now in force. To further ensure the welfare of livestock during transport, a national guide and quality assurance system, TruckCare, has been developed by the Australian Livestock and Rural Transporters'

The independently audited program provides assurance that animal welfare is a priority in the preparation and transportation of livestock by road, by ensuring:

- Correct preparation of livestock prior to pick up
- Drivers are trained in stock handling
- Livestock are kept on the truck for the minimum period of time
- Livestock are checked during transit

- In addition, the 'Is It Fit To Load?' publication was developed by the red meat industry to help producers decide if an animal is fit and healthy for transport.
- 4. Processing The Australian lamb processing industry is committed to the humane treatment of livestock and ensuring acceptable animal welfare standards are implemented and effectively verified.

The industry does this through:

- Working with governments and customers to design and implement global best practices that also meet Australian regulations.
- Developing training and ensuring employees are competent.
- Investing in animal welfare research, development and extension activities and promoting continual improvement of animal welfare at processing establishments.

The Australian lamb processing industry operates under state and federal animal welfare regulations, and processors are required to meet regulations, standards and notices that enforce the appropriate management and handling of livestock.

In 2005, the Australian red meat industry proactively developed and implemented the Australian Meat Industry Council (AMIC) 'National Animal Welfare Standards for Livestock Processing Establishments'. The standards integrate Australia's Model Codes of Practice, relevant state and commonwealth legislation, commercial requirements and community expectations into a single best practice animal welfare standard for livestock processors.

Australian processors demonstrate their superior commitment to these standards and best practice animals welfare by complying with the 'Australian Livestock Processing Industry Animal Welfare Certification System' or 'AAWCS'. The AAWCS is an independently audited certification program which covers all animal welfare activities at the processing establishment–from receival of livestock at the establishment to the point of humane processing.

For more information see: http://www.amic. org.au/content_common/pg-aawcs.seo









PURE ENJOYMENT PURE QUALITY

It starts with great produce, available in abundance, but it's our sense of shared enjoyment that makes the experience so much better; we take pride in our relaxed and fun attitude to life. Australia produces a rich diversity of product, perfectly suited to different occasions whenever red meat is enjoyed. We proudly share our best produce for the rest of the world to enjoy in their own way. Life is about enjoying the moment, living well and when it comes to that, we always expect the best.





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PRODUCT INTEGRITY AND TRACEABILITY SYSTEMS

The National Livestock Identification System (NLIS) is Australia's system for the identification and tracing of sheep for biosecurity, food safety, product integrity and market access.

FAST FACT

Australia exports approximately 50% of its lamb and 95% of its mutton production to more than 100 countries, meeting and exceeding differing market requirements.

NLIS is based on a 'whole life' visual or electronic tag on the sheep, which can utilise radio frequency technology and enable flock transactions to be recorded and transmitted electronically by the producer or processor.

This information is transferred to a central database, allowing the tracing of sheep from point of origin to the point of slaughter to occur swiftly and efficiently – this is one attribute that distinguishes the NLIS from other traceability systems around the world.

TRACEABILITY BEGINS ON THE FARM

The core basis of Australia's livestock traceability system is the Property Identification Code (PIC) which underpins Australia's National Vendor Declaration (NVD) and NLIS programs.

The PIC system was introduced in the late 1960s and identifies each property with an eight-digit alphanumeric code. The code is issued by state governments and identifies the state, region and location of the property.

Before leaving the property on which they were born, all sheep must be identified with a NLIS (sheep) visual or Radio Frequency Identification (RFID) tag and a NVD completed with the contact details of the vendor, the PIC and destination of the sheep. It is a requirement all sheep must be identified with a NLIS (Sheep) visual or Radio Frequency Identification (RFID) tag before leaving the property on which they were born and a NVD completed with the contact details of the vendor, the PIC and destination of the sheep. As of July 1, 2010, it is now a requirement to record the movements of flocks of sheep on the NLIS database. Although each animal is identified with a tag, the traceability system is flock-based through the saleyards and to the processor.

TRACING THE FLOCK THROUGH TRANSPORT & SALEYARD

When flocks are transported to a saleyard, stock agents must check that all sheep are tagged and the required documentation (NVD) accompanies each sheep, then record the sheep transactions that occur in the saleyard in the NLIS database. When the saleyards sell tagged sheep for breeding or processing, they must also upload those transactions and movements to the NLIS database. The National Saleyards Quality Assurance Program (NSQA) addresses key quality issues or hazards within the saleyard sector.

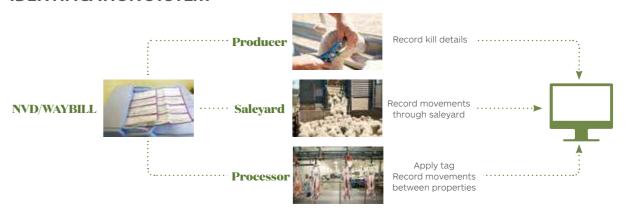
Since each property a flock resides on has a PIC that is stored in the database, the history of the flock is recorded, including information about other flocks it came into contact with on that property. This enables the flock to be traced quickly for the purposes of biosecurity, food safety, product integrity and market access.

IDENTIFYING SHEEP AT THE PROCESSING PLANT

The processors must check that the sheep are tagged and the required documentation (NVD) accompanies the sheep, then record the transaction in the NLIS database. The information correlating the carcase and the PIC ensures precise traceback through the processing plant from when the live animal arrives, to when the final sheepmeat products are exported.

All exporting plants must comply with the Australian Standard to ensure meat is processed hygienically. This standard is consistent with international ISO 9002:1994 and HACCP standards. The Australian government verifies that the legislation is being correctly implemented. Each head receives an antemortem and postmortem veterinary inspection, and microbial assessments are conducted throughout processing.

ENSURING MEAT SAFETY THROUGH THE NATIONAL LIVESTOCK IDENTIFICATION SYSTEM





FROM OUR SHORES TO YOURS

The Australian meat industry recognised many years ago that packing and delivery are two critical links in the lamb supply chain, particularly for international customers. So our processing sector employs state-of-the-art packaging technologies to ensure that Australian lamb is delivered to export markets in the same high quality condition in which it left the processing facility.

Australian chilled lamb primal cuts are vacuumpackaged to maintain freshness and quality and to ensure extended shelf life. Strict temperature control is maintained throughout the delivery process, inhibiting bacterial growth, supporting the natural ageing process and giving Australian lamb a naturally aged shelf life of up to 12 weeks under optimal storage conditions.

REGULATED BY AUSTRALIA'S DEPARTMENT OF AGRICULTURE

All Australian export meat packing plants are regulated by the Australian federal government through the Australian Department of Agriculture.

OPTIMISING LAMB'S FRESHNESS AND SHELF LIFE

Australian processors consider the following four factors, which play a key role in controlling the growth of microorganisms on meat in vacuum packs:

- Australian Processing Conditions A study conducted at the South Australian Research and Development Institute (SARDI), along with multiple national surveys of the microbiological status, found the microbiological count at the time of vacuum packaging on primal cuts was very low.
- Temperature Microbial growth rates at 0°C to 1°C are only about half those at 5°C. A storage temperature as low as -1°C without freezing the meat is the best policy to maximise shelf life. Australian meat is typically transported at -1.5°C to -0.5°C.

- Gas Atmosphere in the Vacuum Packaging —
 The basis of effective vacuum packaging to prevent spoilage and prolong the shelf life of meat is the oxygen-free environment, which inhibits the growth of spoilage bacteria while still allowing the natural tenderising process of ageing to continue.
- The Meat's pH High pH meat (pH6.0 and higher) will spoil more quickly than meat below pH6, as some bacteria are able to survive in this high pH environment. By excluding meat from the carcases where the meat pH is greater than 6, processors can eliminate these spoilage problems.

SHIPPING OPTIONS AND PROTOCOLS

The days at sea are perhaps the most important to the quality of Australian chilled lamb primal cuts. During this time, chilled, vacuum-packaged cuts are allowed to age — a process that improves and enhances meat quality and tenderness. While sea freight is the most popular form of transport, air shipment is also available.

All shipping containers destined for export are inspected, and sea-freight containers are sealed under the Australian Department of Agriculture supervision. Once inspected, the container cannot be opened until it reaches its final destination. For traceability purposes, the container and seal numbers for all lamb exports are stored in the Australian Department of Agriculture database.













ALL ABOUT AUSTRALIAN LAMB

Australian lamb has the 'all-natural advantage'. It is pasture-raised, grassfed, and free of artificial additives and hormone growth promotants—a pure product of its pure environment. Australian lamb is available in a wide array of product lines and cuts.

The primal cuts are vacuum-packed to maintain freshness and quality and to ensure extended shelf life. Naturally lean, tender and mild tasting, Australian lamb's versatility and flavour lends itself to many different cuisines.

Australia has nearly 75 million head of sheep that are divided into two main categories: wool and meat. Meat breeds are commonly Border Leicester, Suffolk, Dorset, Texel and Dorper, quite often crossed with Merinos. Sheep of these breeds are most prevalent in the Southern parts of the country.

GRASSFED LAMB

Most Australian lambs are raised exclusively on pasture. Variations in seasonal and geographic factors influence the style and flavour of grassfed lamb. As demand for natural, wholesome foods increases globally, Australian grassfed lamb is being seen as an important component of a healthy diet. Raised exclusively on pasture, grassfed lamb is naturally low in fat and cholesterol.

Australian grassfed lamb is highly regarded in many export markets, and Australia has developed a reputation for producing some of the best grassfed lamb in the world.

GRAINFED LAMB

Over 90% of Australian lambs are grassfed. While most of the remaining are grain assisted with access to grain in the paddock, a smaller number have been finished on a nutritionally balanced, high-energy ration for a specified minimum number of days.

ORGANIC LAMB

Australian organic lamb is raised as nature intended. Australia's emphasis on sustainability, animal welfare and natural nutrition provides a product that is good for consumer's health.

Organics is not just about being chemical-free; it's about the way food is grown and handled. The whole system is linked.

Organic lamb raised in Australia's abundant natural rangelands will appeal to an expanding market of discerning consumers who are looking for natural, healthy alternatives.

Organic lambs are raised on certified organic farms, which is your guarantee that the animal has been raised on completely chemical-free pasture (no artificial pesticides, herbicides or fungicides). The abundance of natural grazing land makes Australia the perfect place to nurture organic lambs.

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ENSURING MEAT SAFETY THROUGH THE NATIONAL LIVESTOCK **IDENTIFICATION SYSTEM**

Australia's Lamb Breeding

First Cross

Border Leicester Ram

Second Cross

Dorset Ram

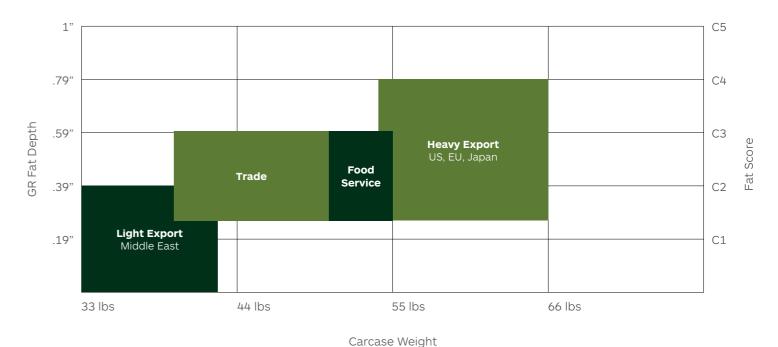




Lamb Production Cycles

- Majority of lambs are born in Autumn and Spring
- Lambs are processed 5-12 months later
- Dependent on season, market and target weights

Australian Product Specifications







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HOW TO BUY AUSTRALIAN LAMB

Ordering Australian lamb is simple, and understanding the AUS-MEAT language is the first step.

AUS-MEAT is an industry-funded organisation responsible for establishing and maintaining Australian meat specifications. The AUS-MEAT language is a uniform specification language for Australian meat products that enables importers and wholesalers to accurately specify the meat product they wish to purchase from an exporter or seller. The AUS-MEAT language is outlined in detail in the AUS-MEAT Handbook of Australian Meat (HAM).

The AUS-MEAT language is based on product description and objective measurements of various carcase traits, such as hot weight, fat depth, sex and age of the animal.

AUS-MEAT has assigned a distinct, four-digit number for every primal cut and offal product. The category descriptions and HAM numbers are vital components when ordering Australian lamb.

AUSTRALIAN MEAT QUALITY — CHILLER ASSESSMENT

Australian meat processors objectively measure carcase quality using an industry program called 'chiller assessment'. This is principally how we 'grade' carcases. Chiller assessment is conducted by qualified company personnel, and company chiller assessment programs are regularly audited by AUS-MEAT to ensure their integrity.

Chiller assessment is used to objectively measure the quality characteristics of a lamb carcase, allowing the processor to accurately communicate the characteristics of the carcase to a buyer. Chiller assessment enables the buyer to accurately specify the type of product desired. Unlike beef carcases, which are assessed after chilling, lamb carcases are assessed as they enter the chiller from the processing area. Chiller assessors evaluate the carcases by measuring fat cover and carcase weight.

CARCASE FAT CLASS

The fat cover on a carcase is described by fat classes on a scale of 1 to 5. The class is determined on the depth of tissue at the GR SITE. This site is located over the 12th rib, 110mm from the mid line as shown in the diagram on the following page.

Carcase Fat Class



The fat cover on a carcase is described by fat classes on a scale of 1 to 5. The class is determined on the depth of tissue at the GR SITE. This site is located over the 12th rib, 110mm from the mid line as shown in the diagram below.



Hygiene Requirements

- Minimum trimming is performed as required by meat inspection services for the carcase to be passed fit for human consumption.
- Trimming of the neck and neck region may be extended to ensure compliance with 'Zero Tolerance' for ingesta contamination, especially where Halal slaughter has been performed. This extension of the standard carcase trim is limited to a hygiene trim and may include complete removal of the 1st cervical vertebrae. This process must be controlled by the approved arrangement under the Australian Standards.

Hygiene Requirements

- Head removed between the skull and 1st cervical vertebrae.
- Feet between the knee joint and hock joint.
- · Thick skirt removed.
- Tail is removed so that it is no longer than 5 coccygeal vertebrae.

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- Kidney, kidney knob and pelvic channel fat.
- Udder, or testes, penis and udder fat.





HOW TO ORDER AUSTRALIAN LAMB

There are three easy steps to ordering Australian Lamb.

STEP 1 DEFINE THE CATEGORY OR ALTERNATE CATEGORY

As a first step to ordering Australian lamb, you should let your supplier know the desired category of sheepmeat (lamb and/or mutton) that will be processed into your desired cuts. This specification is known as the category. Two options are available when defining the category. If you aren't too concerned about the age of the animal or the variability of meat quality, you can define lamb by basic categories.

If you are looking for meat that has been derived from animals of a certain age and, therefore, exhibits less variance in quality, you can define meat by alternative categories. You will notice that the criteria used to define alternate categories are more narrowly specified than those for basic categories.

STEP 2 DEFINE THE PRODUCT SPECIFICATION

A product specification defines attributes of each product. When defining the specification to your supplier, you might include the following:

- The cut name you wish to purchase
- The product or cut's Handbook of Australian Meat (HAM) number
- Fat depth, degree of trimming, whether various muscles and bones remain intact or are removed

STEP 3 DEFINE OTHER REQUIREMENTS

Requirements not specifically related to the product specification also should be defined. These requirements may include:

- Chilled or frozen product
- Packaging (vacuum-packed, layer packed, multi-packed, etc.)
- Price
- Quantity shipping terms
- Delivery date

Basic Dentition Categories of Sheepmeat		
Dentition	Description	Category/Cipher
0	Lamb – Female, castrate or entire male animal that: • Has no permanent incisor teeth.	Lamb 'L' *12 months (approx.)
1-8	Mutton – Female or castrate male animal that: • Has at least one (1) permanent incisor tooth. • In male has no evidence of Secondary Sexual Characteristics (SSC).	Mutton 'M' *Over 10 months
1-8	Ram – Entire or castrate male that shows Secondary Sexual Characteristics (SSC).	Ram 'R' *Over 10 months

Alternative Dentition Categories of Sheepmeat		
Dentition	Description	Category/Cipher
0	Carcase derived from female or castrate male ovine that: • Has no permanent incisor teeth (in addition): • Has no eruption of permanent upper molar teeth.	Young Lamb 'YL' *Up to 5 months only
1-2	Carcase derived from female or castrate male ovine that: • Has 1 but no more than 2 permanent incisor teeth. • In male has no evidence of Secondary Sexual Characteristics (SSC).	Hogget 'H' or Yearling Mutton *10 to 18 months
1-8	Carcase derived from female ovine that: • Has 1 or more permanent incisor teeth.	Ewe Mutton 'E' *Over 10 months
1-8	Carcase derived from castrate male ovine that: • Has 1 or more permanent incisor teeth. • Has no evidence of Secondary Sexual Characteristics (SSC).	Wether Mutton 'W' *Over 10 months

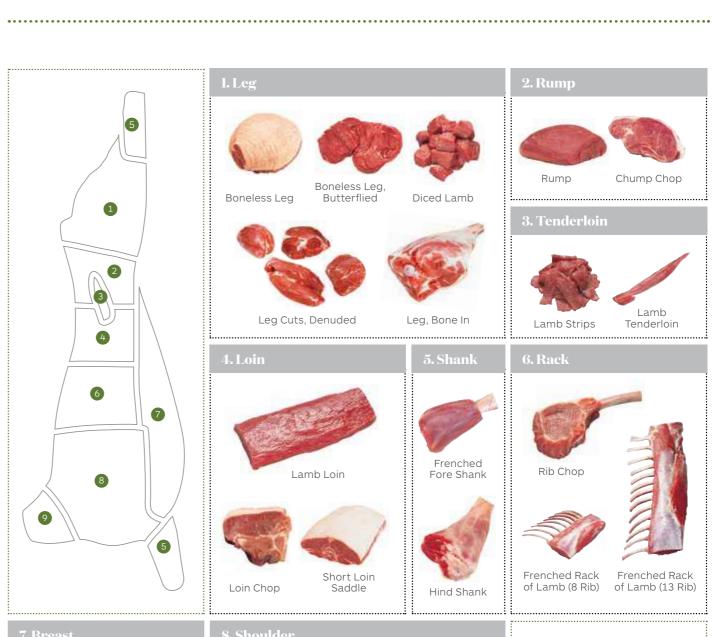
^{*} Stated ages are approximate Source AUS-MEAT

POPULAR CUTS& LABELING





LAMB BASIC CUTS









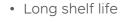




 No added hormones No additional



Pasture raised



 Sustainable farming practices

Lamb





Shoulder Rack Lamb Mince (4 Rib)



Shoulder Chop



All cartons of Australian red meat are identified with product information labels. Carton labels consist of mandatory information that is required under Australian government regulation. In addition to mandatory information, Australian processors may include optional information on the label, allowing for further description for trade purposes.

- 1. Generic statement: Bone in or boneless and identification of species
- 2. Country of Origin
- 3. Carcase Identification: Category code which identifies the carcase age and sex
- 4. Product Identification: Primal cut description as shown in the Handbook of Australian Meat
- 5. Primal Weight Range: Indicates that each primal cut in the carton is the minimum/maximum weight range as shown on the label
- 6. Packaging Type: AUS-MEAT packaging code
- 7. Bar code: Most developed and compliant with the GS1 (EAN.UCC) international meat industry guidelines
- 8. Packed on date: Day, month, year and time that the product was packed into the carton
- Best Before date: End of the period for meat stored in accordance with any stated storage condition.
 Meat marked with best before date can continue to be sold after that date provided that the meat is not damaged, deteriorated or perished. Meat marked with use by date cannot be sold after that date
- 10. Net Weight: Meat content, less all the packing material, shown to two decimal places in kilograms and pounds
- 11. Batch Number: In-house company identification number for product tracing when required

- 12. Carton Serial Number: Individual identification number for carton
- 13. Halal Approved: Product has been ritually slaughtered and certified by an approved Islamic organization
- 14. Establishment Number: Plant-registered identification number
- 15. Al Stamp: Australian government inspected
- 16. Refrigeration Statement: 'keep chilled/ refrigerated' indicates that the product in the carton has been held in a controlled chilled condition from the time of packing
- 17. Number of Pieces: Number of primal cuts in the carton
- 18. Company Code: In-house identification code for product in the carton
- Company Trading Name: Name of the processor of the product





AUSTRALIAN LAMB

Australian Lamb is all-natural, pasture-raised, and free of artificial additives and hormone growth promotants—a pure product of its pure environment. Value-added Australian lamb cuts are a great addition to any menu or display case, and their versatility and flavour lend themselves well to many different cuisines.

Visit trueaussielamb.com for more information.