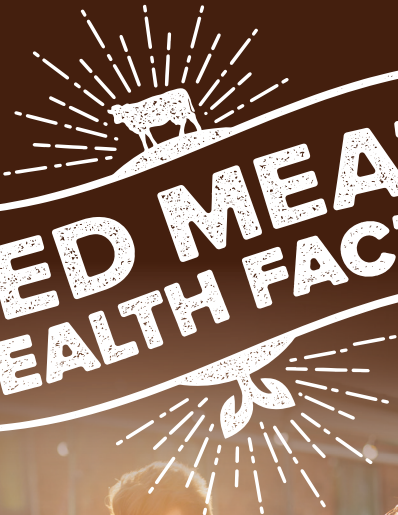




RED MEAT, HEALTH FACTS

- Australian -
Good Meat

MORE THAN JUST GOOD FOR YOU

The red meat and livestock industry proudly produces nutritious, natural protein; is a custodian of the environment; and is increasingly part of the climate solution. Know your facts.

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Welcome to

Red Meat, Health Facts

Consumers are increasingly interested in 'health and wellbeing', and with so many sources of information available today, it's important we provide them with clear facts and practical guidance for enjoying Australian red meat as part of a healthy, sustainable diet.

This is where *Red Meat, Health Facts* comes in. For more than 20 years, MLA has invested in research that seeks to support the sustainable consumption of Australian red meat. From its nutritional value and benefits, to how you could enjoy 3–4 healthy, balanced red meat meals a week – you'll find it all in this easy reference guide.

Whether you're a red meat producer, health professional or a consumer, *Red Meat, Health Facts* is here to help you spread the true facts on beef, and lamb nutrition.

For more information, visit MLA Healthy Meals:
mlahealthymeals.com.au

Jason Strong
Managing Director
Meat & Livestock Australia



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and health**

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Know the facts

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research and development
detailed in this publication.



Nutrition and health

For Delicious and Nutritious ways to include Australian Red Meat as a part of healthful meals, visit: trueaussiebeefandlamb.com

Healthy and sustainable diets

Australian red meat can be part of a healthy and sustainable diet.

Research shows two key strategies are needed to achieve a healthy and sustainable diet:

1. Eating a healthy diet in line with the Dietary Guidelines for Americans
2. Choosing meat raised with sustainable farming and production practices.
3. Sustainable production and waste reduction practices.

Healthy meals

Eating 26 oz. of protein per week in a variety of healthy, balanced meals is recommended in a healthy diet.

Eating lean red meat three - four times a week, using proper portion size, contributes essential nutrients recommended for a nutritionally adequate diet and a balance of foods recommended in the Dietary Guidelines for Americans for a healthy diet.

Dietary Guidelines for Americans

The Dietary Guidelines for Americans recommends eating 5.5 oz of protein per day from a variety of red meat, poultry or egg.

The U.S. Dietary Guidelines refers to red meat as beef, lamb, pork, goat, veal and game meat such as venison, bison and elk), not processed meats.

Sustainable consumption

Sustainable consumption of red meat includes red meat three to four times a week in healthy, balanced meals in line with Dietary Guidelines for Americans.

Australian research shows that the environmental impact of reducing red meat intake below recommended amounts is small and sustainable production and waste reduction strategies are more effective ways to reduce the footprint of a healthy diet.

Essential nutrients

Red meat is naturally nutritious and a source of 12 essential nutrients for brain and muscle development and function, immunity and energy.

Red meat is a good source of protein, iron, zinc, phosphorous, vitamins B3 and B12, Omega-3, magnesium, selenium, Vitamins B5 and B6.

Protein

Red meat is naturally a good source of high quality protein.

Protein found in red meat, as with other animal proteins, is considered a complete protein, providing our bodies with all the essential amino acids in adequate amounts. With 32g of protein per 3.5 ounces of cooked meat, red meat is an easy way to get the protein required to support overall wellness and muscle health.

Lean meat

The average fat content of lean beef is comparable to that of skinless chicken.

The fat content of red meat is largely determined by the amount of separable fat. Trimmed of separable fat, lean beef has on average 2.7g fat per 100g raw weight, while skinless chicken has 3.5g per 100 grams raw weight (based on average of skinless breast, leg and wing). When choosing red meat— whether it's grass-fed beef or another— opt for lean beef (no more than 10 g total fat and no more than 4.5 g saturated fat).

Omega-3

Grass fed red meat is a source of omega-3 and CLA in the diet.

With Australian red meat predominantly grass-fed, it is a source of omega-3 and conjugated linoleic acid (CLA). Lean cuts of grass-fed beef have a lower total fat content and may have a more favorable fatty acid profile.

Iron

Red meat is a great source of iron and is important for brain function, wellbeing, and immunity.

For babies and young women who have high iron needs, iron-rich red meat is an easy way to get enough iron, important for mental and physical development and wellbeing. Red meat has more iron than pork, chicken and fish and the form of iron (heme-iron) is better absorbed than iron from plant foods such as spinach. In addition, heme iron helps the body absorb non-heme iron.

Zinc

Zinc from red meat is readily absorbed by our bodies, whereas zinc is less well absorbed from plant foods. Zinc is important for healthy bone development, fertility and immunity.

Zinc is an essential trace element commonly found in and well-absorbed from red meat, it is necessary in small amounts for human health, growth, and sense of taste.

Comparisons with pork, chicken, fish and plant foods

Beef and lamb are higher in iron and zinc and easier for the body to absorb

Beef and lamb contain more iron and zinc than pork, chicken and fish and it is easier for the body to absorb than the iron and zinc found in plant foods.

Plant-based fake meats

Unlike ultra-processed plant-based fake meat or meat-mimic products, red meat is naturally a nutrition-dense food without the need for additives.

Red meat is low in sodium, has no artificial flavors or preservatives, is gluten free, and naturally packed with essential nutrients. Plant-based fake meats are not nutritional substitutes for Australian red meat.

Many plant-based fake meat products are highly processed.

Plant based meat is made from a combination of protein isolates, concentrates, flour, fungi, oils, salt, spices, seasonings and other plant derivatives including starches and common food additives.

The Plant Forward and Flexitarian Diet

The term “plant-forward” doesn't necessarily mean vegan, or even vegetarian. In fact, plant-forward dishes can include animal proteins.

Those who eat a plant-forward diet—many of whom self-identify as flexitarians—generally consume large amounts of fresh produce, whole grains, pulses, beans, nuts and herbs and spices, but are not locked into an exclusively plant-based regimen. Australian red meat is a healthful, sustainable animal protein with which to build plant forward dishes.

The good news for red meat eaters? Australian beef and lamb can be a healthy and sustainable part of a varied and nutritious diet, if you are equipped with facts and are making thoughtful choices.



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Welcome to *Red Meat, Green Facts*

It is vital our industry is transparent and proud of its ongoing achievements in caring for our land, animals and product, with the evidence to back it up. MLA has created *Red Meat, Green Facts* to do just that. It brings together clear, evidence-based messages to empower Australia's red meat advocates on topics such as the environment, animal welfare, nutrition and plant-based fake meats.

As an industry, we are not afraid of scrutiny or competition. We acknowledge our responsibility as custodians of the environment and are proactive in making improvements. But all of these discussions need to be based on facts, not misinformation — and they need to acknowledge the outstanding product that's produced and its importance in our diets, our livelihoods, our economy and our lifestyle. *Red Meat, Green Facts* is an easy reference guide which provides facts about the red meat and livestock industry so you can actively engage with your community. I encourage you as Australian red meat advocates to share this resource with your friends, family and colleagues and use it as a basis for engaging in conversations. Together, let's get on the front foot and promote what our industry and product have to offer.

Jason Strong
Managing Director
Meat & Livestock Australia

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Environment



Scan the QR code to learn more about how the Australian red meat industry is committed to positive environmental management.

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Action on climate change

The Australian red meat and livestock industry's goal is to be carbon neutral by 2030, ahead of most other industries in Australia and around the world.

CSIRO analysis shows it's possible to achieve net zero greenhouse gas emissions by 2030 by increasing productivity, increasing carbon stored in landscapes, and reducing emissions, without reducing herd and flock numbers below current levels.

Australian sheep meat production is climate neutral and Australian beef isn't far behind.

CSIRO research shows sheep meat production in Australia is 'climate neutral', meaning the industry isn't contributing to additional global temperature rise.

Net greenhouse gas emissions

The Australian red meat industry has more than halved GHG emissions since 2005.

This 59% reduction in net GHG emissions is larger than any other sector in Australia. The industry is pursuing a carbon neutral target by 2030, meaning net zero GHG emissions from red meat production, feedlot and processing sectors.

The red meat industry is a relatively small source of emissions in Australia.

The largest emitters are electricity generation (33%), stationary energy (20%), transport (18%), with the red meat industry approximately 10.7%

You are emitting around eight times as much carbon dioxide equivalent emissions by driving a car than you are eating beef 3–4 times per week.

The average car travels 13,500km in a normal year and emits 2,443.5kg CO₂, whereas if you eat beef as per the Australian dietary guidelines, the emissions would be 317kg CO₂-e per year.

Feed additives such as red seaweed can significantly reduce methane emissions from cattle.

Cattle that eat asparagopsis (red seaweed) or the additive Bovaer® as part of their diet produce up to 90% less methane.

At current production and consumption levels, the Australian red meat industry will not contribute to additional global temperature rise.

With stable livestock numbers, the amount of methane produced balances the methane that breaks down from the atmosphere within 10–12 years.

Methane emissions from livestock break down in the atmosphere, whereas carbon dioxide from burning fossil fuels continues to build up over centuries.

Methane emitted by livestock is part of the natural biogenic carbon cycle. Methane breaks down into carbon dioxide within 10–12 years which is recycled by soil and plants that sheep, cattle and goats eat, which restarts the natural carbon cycle. In comparison carbon dioxide emissions from energy and transport sectors burning fossil fuels remain in the atmosphere for hundreds of years.

Biodiversity

Raising livestock combined with land management practices increases biodiversity on farms.

Research has demonstrated that different grazing approaches help biodiversity.

Energy

The red meat industry continues to invest in renewable energy technologies to reduce emissions and cost of production.

Technologies include solar photovoltaics, biomass-fired boilers and biogas-fired boilers and combined heat and power units.

Land use

The amount of vegetation cover in Australia has increased since 1995.

Total woody vegetation has increased from 23.77% in 1995 to 25.49% in 2020. Also, over the past decade the area of land under forest in Australia increased by around 3 million hectares or around 2.5% of total forest area. Of land that has been cleared, 93% is due to urban expansion for other purposes. Only 7% of land clearing of primary forest conversion was for grazing purposes.

Australia is suited to grazing livestock – just 3% of Australia's agricultural land is suited to cropping.

With only small pockets of Australia suitable for growing crops, it is not possible to just convert grazing land into growing crops. Cattle, sheep and goats on grazing land convert grass and other plants with low nutrient value to humans into high quality protein, fatty acids, vitamins and minerals that we can digest. Grazing of plants stimulates more plant growth, which accelerates the absorption of carbon dioxide from the air into carbon in plants and soil.

Livestock producers are custodians of almost half of Australia's land mass.

Almost half of Australia is used for grazing livestock. Maintaining and improving the environment for future farming generations is of utmost importance to red meat producers, with 43% of cattle grazing land managed for biodiversity outcomes, and 80% of natural resource management regions achieving healthy groundcover thresholds.

Soil

Dung beetles recycle nutrients in pastures and help store carbon in the soil.

Carbon sequestration from these ecosystem engineers could be equivalent to that sequestered by 400,000 hectares of eucalypt plantation.

Well-managed livestock can have a positive impact on soil health.

Nutrients in livestock manure enriches the soil. Soil organisms such as earthworms break down the manure, enhancing soil structure and releasing nutrients for plant growth, which promotes soil carbon storage.

Water use

It takes 68% less water to produce a kilo of beef than it did 30 years ago.

Current research shows that it takes 486L to produce 1kg of beef from raising cattle in Australia.

Livestock feed versus human food

Livestock mostly eat feed that humans can't eat.

86% of plant materials fed to livestock globally are lower value by-products that do not meet human consumption standards.

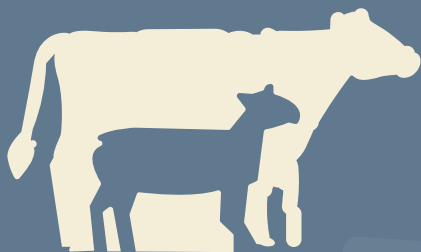
Sustainability frameworks

The Australian beef industry aligns with global sustainable development initiatives.

Developed in 2017, the Australian Beef Sustainability Framework contains 24 sustainability priorities, aligns with twelve of the United Nations Sustainable Development Goals, reported annually to demonstrate continuous improvement in areas such as emission reduction, use of antibiotics, balance of tree and grass cover, and animal welfare.

Australia launched the world's first sheep meat and wool sustainability framework in 2021.

Launched in 2021, the framework aligns with 10 United Nations Sustainable Development Goals, tracking and reporting on industry performance across 4 themes of 'Caring for Our Sheep', 'Enhancing the Environment and Climate', 'Looking after our People, Customers and the Community', and 'Ensuring a Financially Resilient Community'.



Animal health and welfare



Scan the QR code to learn more about how the Australian red meat industry works tirelessly to do good by its animals, ensuring they have the best quality of life.

redmeatgreenfacts.com.au

Standards and guidelines

Compliance with industry animal welfare standards and guidelines is a legal requirement.

Welfare of Australian livestock is underpinned by the Animal Welfare Standards and Guidelines as regulated by state and territory governments.

Australia is constantly working to research and improve animal welfare standards.

The Australian Animal Welfare Standards and Guidelines cover animal needs including feed and water; handling and management; and humane processing.

Strict national standards ensure livestock are well looked after during transport.

This includes adhering to a 48-hour maximum time period in which livestock can travel before requiring a break.

Animal wellbeing

The Australian red meat industry commits to the five domains of animal welfare.

Endorsed by the World Organisation for Animal Health the five domains are (1) nutrition (2) environment (3) health (4) behaviour and (5) mental state.

Good animal health and welfare practices also positively impact meat quality.

Over the past decade the Meat Standards Australia average grade index increased from 56% to 58%, representing an overall average improvement in eating quality of Australian beef.

The red meat industry is working to reduce, refine and replace painful animal husbandry practices.

The beef industry aims for 100% use of pain relief by 2030. Currently 35% of Australian cattle producers are regularly using pain relief for invasive procedures.

Most producers are breeding cattle without horns.

Over 73% of calves born into seedstock herds are naturally polled (hornless).

Antibiotics

Australia is a world leader in minimising antibiotic use in red meat production.

If livestock are sick they can be prescribed antibiotics by a veterinarian. The Australian Pesticides and Veterinary Medicines Authority (APVMA) is the Australian Government regulator of agricultural and veterinary chemical products which determines which antibiotics are approved for use in animals and how they are used. The Government's National Residue Survey testing shows 99.9% of beef being below the maximum allowable levels (for all tested residues, including antibiotics).

Live export

Australia has some of the most rigorous live export standards in the world.

The industry constantly works with trade partners to raise animal welfare standards right through the supply chain.

Processing plants

Australian cattle and sheep are ethically and humanely processed to the strict industry standards.

The Australian processing sector worked with industry and the RSPCA to contribute to standards and guidelines to meet the requirements for the provision of good animal welfare standards.

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