

BEEF CATTLE



BEEF CATTLE INDUSTRY

- ▶ The beef cattle industry makes an important contribution to the Australian economy.
- ▶ In 2017-18, it accounted for around 20% (\$12.3 billion) of the total gross value of farm production (Australian Bureau of Statistics 2019b) and around 19% of the total value of farm export income.
- ▶ Around 49% of all Australian farms carry beef cattle (ABS 2019a), making this the most common and widely dispersed agricultural activity in Australia.
- ▶ Beef cattle farms are an important part of the rural economy in almost all regions of Australia. Farms running beef cattle manage more than 79% of the total area of agricultural land in Australia.
- ▶ Australia produces around 2 million tonnes of beef and veal of which 68% is exported to around 77 countries at a value of over AU\$7 billion
- ▶ Australia is the world's seventh largest beef producer, producing 3% of the world's beef supply and is the third largest beef exporter
- ▶ Australia's largest beef export market is Japan, followed by the USA and South Korea.
- ▶ Beef cattle are production animals that are specially bred to provide food for humans.
- ▶ The two main products from beef cattle are beef and veal.
- ▶ The meat from beef cattle is a major product in Australia with average consumption estimated at 33kg per person, per year.



ORIGIN OF THE COW

- ▶ Around 10,500 years ago, cattle were domesticated from as few as 80 ancestors in central Anatolia, the Levant and Western Iran.
- ▶ Cattle, or cows (female) and bulls (male), are the most common type of large domesticated hoofed mammal.
- ▶ They are a prominent modern member of the subfamily Bovinae.
- ▶ Cattle are the most widespread species of the genus *Bos*, and are most commonly classified collectively as *Bos Taurus*.
- ▶ Pregnancy length does vary by breed and by sex of the calf.
- ▶ Gestation length ranges from 279 to 287 days. For most breeds, 283 days would be common.
- ▶ Cows carrying bull (boy) calves tend to have a slightly longer gestation compared to cows carrying heifer (girl) calves.



FARMING IN AUSTRALIA

- ▶ Due to Australia's warmer conditions, beef cattle are almost never housed in barns. However, in summer months, access to shade is very important, especially in hotter regions. Equally, in colder regions, access to shelter (e.g. tree wind breaks) is important in winter months.
- ▶ Beef cattle in Australia are mostly grass fed for most of their life. About one third of Australian cattle are eventually 'finished' in feedlots where they are fed a largely grain-based diet from 70 to 360 days until they meet the specifications for the market.
- ▶ As a simple guide, a cow needs between 2% and 3% of its weight per day in food.
- ▶ Water is also critical.

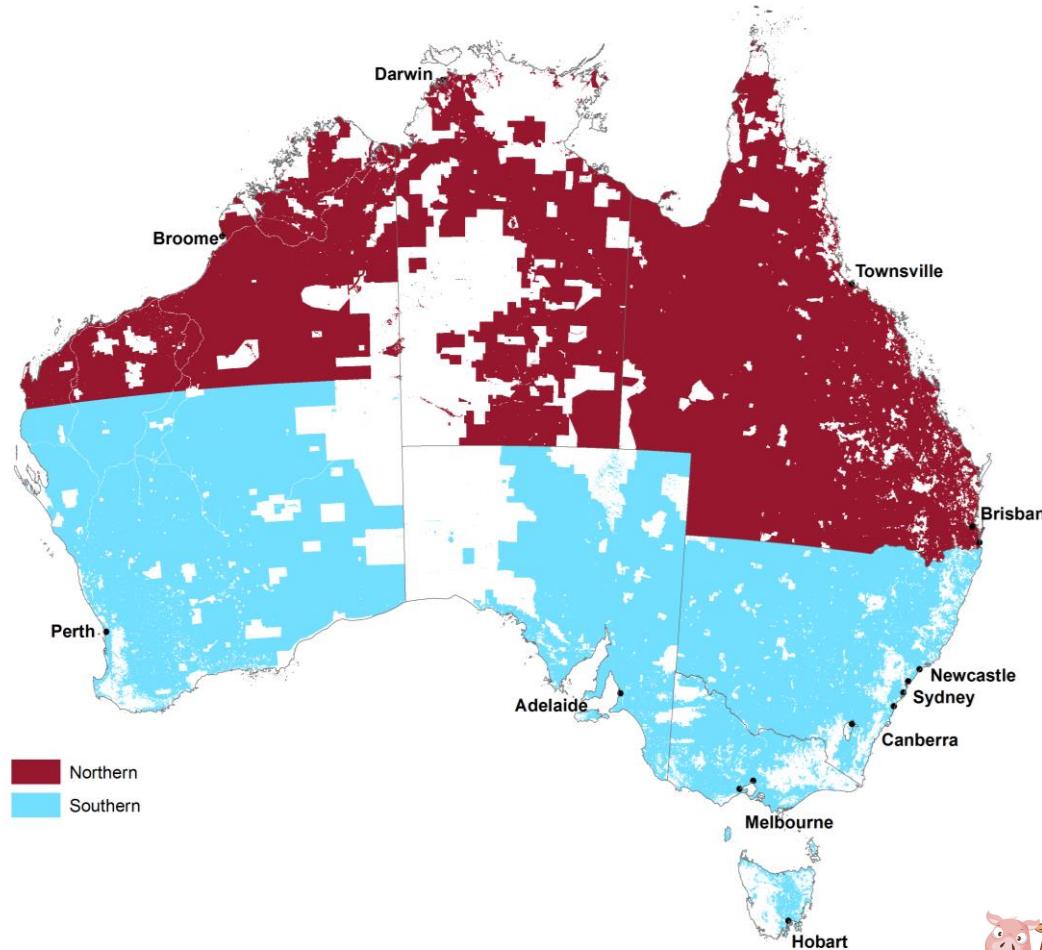


COMMON CATTLE BREEDS



- ▶ In Australia there are more than 30 different breeds of cattle suitable for beef production and breed selection depends largely on the climate of the region in which the cattle will be grown.
- ▶ There are some breeds that are bred to produce a special type of meat for a specific market, such as Wagyu beef which is in high demand from Japan, but demand is also increasing here in Australia.

BEEF CATTLE REGIONS



- ▶ Beef cattle are farmed in every Australian state and territory. Different breeds of cattle are suited to different environmental conditions and climate is the main factor in breed selection.
- ▶ Northern beef production utilises tropical breeds, southern beef production utilises temperate breeds, while areas of south eastern Queensland and north eastern New South Wales utilise both temperate and tropical breeds.
- ▶ Beef cattle can be farmed and produced in both dry sub-tropical and temperate regions of Australia - as well as arid central Australia.
- ▶ They are not produced in the desert areas such as the Great Sandy Desert, the Gibson Desert, the Tanami Desert and Simpson's Desert. Different breeds are suited to different environments.



NORTHER BREEDS

In the tropical regions of Northern Australia, the *Bos indicus* breeds are used as they are resistant to cattle ticks and are better adapted to the high temperatures.

Some of the main *Bos indicus* breeds are:

- ▶ Belmont Red - developed in Queensland, Australia in 1968.
- ▶ Brahman - originate from the USA they calve easily, milk well and are very protective of their young.
- ▶ Brangus - developed from Brahman and Angus. They have reasonable heat and tick tolerance, are medium sized, average to late maturity and yield a carcase without excess fat.
- ▶ Braford - a Hereford and Brahman cross that are heat resistant, relatively tick tolerant and slightly later maturing than the British breeds. Produce good yearling and steer carcases.
- ▶ Charbray - A Charolais and Brahman cross animal that produces a high muscled lean carcase.
- ▶ Droughtmaster - developed in Queensland and are a combination of Brahman, Shorthorn, with some mixture of Red Poll and Hereford.
- ▶ Santa Gertrudis - originate from the USA, have a maternal/rotational/terminal place in cross breeding.

BRAHMAN



Brahman cattle, one of the most common of the *Bos indicus*, have short, light coloured coats to reflect the sun and black skin that protects them from sunburn. They have loose skin and extra sweat glands to keep cool. The tropical breeds first came from Africa, Asia and the Mediterranean region of southern Europe.

SOUTHERN BREEDS

In Southern Australia, the Bos Taurus breeds are used in the mild climate as they mature quickly and have a rapid growth rate.

Some of the main Bos Taurus breeds are:

- ▶ Angus - suited to vealer, steer and bullock production or maternal/rotational place in cross breeding.
- ▶ Hereford - suited to vealer, steer and bullock production or maternal/rotation place in cross breeding.
- ▶ Murray Grey - suited to vealer, steer and bullock production or maternal/rotational place in cross breeding.
- ▶ Shorthorn - suited to vealer, steer and bullock production or maternal/rotational place in crossbreeding.
- ▶ Charolais - suited to bullock production or as a terminal sire in cross breeding programs.
- ▶ Limousin - smaller and earlier maturing than other European breeds but later maturing than British breeds, so suitable for cross breeding programs.
- ▶ Simmental - suited to vealer, steer and bullock production maternal/rotational/terminal place in cross breeding.





ANGUS & HEREFORD



- ▶ The Angus and Hereford are two of the most common of the temperate breeds produced in Australia.
- ▶ The temperate breeds originally came from the cool climate areas of Europe, mainly Britain.

BEEF CUTS



Beef is prepared in a variety of ways from barbeques to soups, stews and roasts

HEALTH CARE, PESTS & DISEASES



- ▶ Animal health, welfare and biosecurity are all important stages of the livestock production chain. If managed poorly each can have adverse impacts on productivity.
- ▶ Biosecurity programs for the cattle industry are designed to prevent the spread of infectious disease and contain disease outbreaks when they occur.
- ▶ Parasites and disease impact on all livestock production systems, including beef cattle. Livestock affected by disease may not always show obvious clinical signs but there may still be negative impacts on growth rates, reproduction rates, carcase quality and milk production.
- ▶ Some of the key cattle parasites include stomach worms, lice and ticks while diseases include grass tetany, pink eye, pregnancy toxæmia and vibriosis
- ▶ Biosecurity is important at the national, regional and property level.
- ▶ Producers are governed by [Australian Animal Welfare Standards and Guidelines](#). State and territory governments are responsible for animal welfare laws and their enforcement. These are enforced through animal welfare or prevention of cruelty to animals' legislation.



RISKS & CHALLENGES

- ▶ Like any primary production enterprise there are risks associated with commercial production of beef cattle. Some will be outside of a producer's control however experienced producers are usually able to manage these risks.
- ▶ Risks include the loss of vital export markets. The COVID-19 outbreak had a massive impact on a lot of our export markets.
- ▶ Disease and pests, it is extremely important that we maintain Australia's freedom from major cattle diseases through strict quarantine laws and procedures.
- ▶ Here in Australia weather events such as drought, fires and flooding take a huge toll on our farming communities. They really need our support.

POP QUIZ

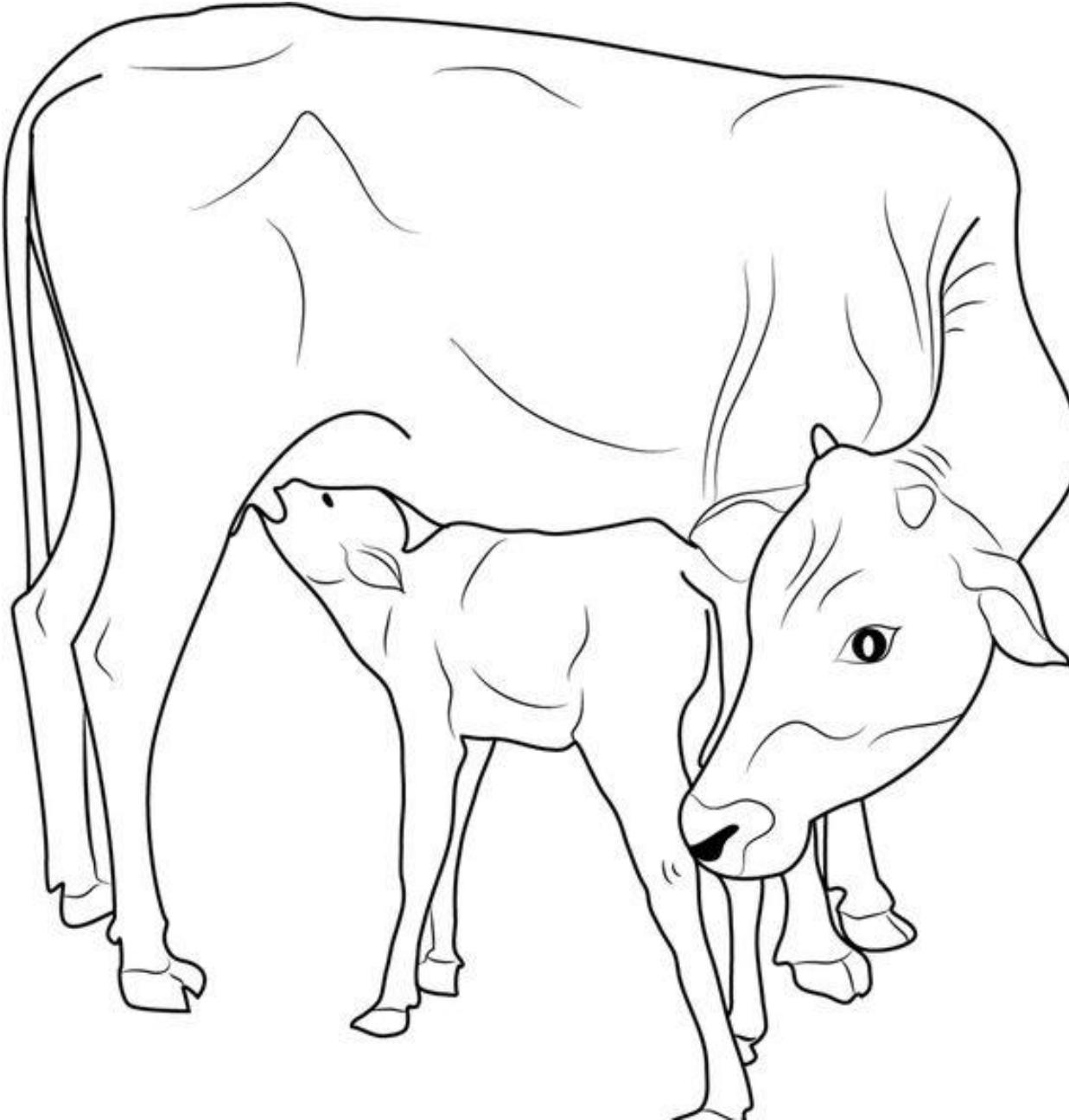


- ▶ Beef cattle production is a well-established and major industry in Australia TRUE/FALSE
- ▶ Beef cattle are produced in _____ states and territories.
- ▶ Australia produces both _____ and _____ beef.
- ▶ Australian cattle and calf production are valued at _____ billion.
- ▶ Australia produces around _____ tonnes of beef.
- ▶ Australia is the world's _____ largest beef producer, is exporting to around _____ countries.
- ▶ Name three Northern breeds _____, _____, _____.
- ▶ Name three Southern breeds _____, _____, _____.
- ▶ In Australia there are more than _____ different breeds of cattle suitable for beef production.
- ▶ Cattle were first domesticated around 500 years ago TRUE/FALSE.
- ▶ What are the three environmental challenges farmers face in Australia _____, _____, _____.

NOTES



BEEF CATTLE





RESOURCE

www.agrifutures.com.au,
www.agriculture.gov.au, Wikipedia