



State of the Industry

A summary of statistics and performance measures for Australia's livestock exports in 2023



OVERVIEW

Industry stakeholders, government representatives, animal welfare groups and the general public have a keen interest in Australia's livestock export industry. As well as being heavily regulated, a significant amount of data about the industry's performance is publicly available.

This report brings together many of the key statistics for 2023, such as species exported, destinations, and delivery rates. It also provides information about the industry's activities in areas of most interest to the community, as identified in a series of national surveys conducted since 2019.

LIVEXCollect is the platform approved by the livestock export regulator – the Department of Agriculture, Fisheries and Forestry (department) – for reporting data from pre-export quarantine yards, sea voyages and air exports. It is the source used for the majority of export statistics in this report.

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1. OPERATING ENVIRONMENT

Factors affecting the livestock export industry in 2023 included exotic diseases, government policy and livestock prices.

Foot and mouth disease (FMD) and lumpy skin disease (LSD) continued to affect Australia's neighbour and key cattle market, Indonesia. There was also a temporary disruption to the trade after Australian-bred cattle tested positive for LSD after arrival in Indonesia. It is important to note that Australia remains free of both FMD and LSD.

To boost vaccination rates for these diseases in Indonesia for both local livestock and imported cattle, the industry and Australian Government provided vaccines and support for capacity building initiatives. There were also ongoing activities across Australia's livestock industries and state and federal government agencies to increase our own preparedness for exotic animal diseases.

In early 2023, the Australian Government set up a panel to consult with industry and the public on its policy to phase out the live sheep export trade, with a report delivered to the Minister later that year. The government has since announced that the export of live sheep by sea will end on 1 May 2028.

Nonetheless, new markets for sheep and goats were opened in Argentina and Papua New Guinea, and sheep exports to Saudi Arabia (once one of Australia's biggest markets) resumed after a hiatus of more than a decade.

Export volumes picked up in 2023, as livestock prices eased and supply increased. This came off the back of wide-spread drought in Australia in 2017-19, followed by strong producer demand and low supply which pushed cattle and sheep prices to record levels during 2021-22. After several years of favourable seasonal conditions, 2023 saw national cattle and sheep numbers rebound to 10 year highs, contributing to increased availability to meet the strong underlying demand from export markets.

2. LIVESTOCK EXPORT STATISTICS

Australia's livestock export industry is highly regulated, including through the Australian Standards for the Export of Livestock (**ASEL**) and the Exporter Supply Chain Assurance System (**ESCAS**).

Significant amounts of data are collected along the supply chain and much of this is published by the department on its [website](#). This includes:

- Livestock export **numbers**, including details like species, destination and mode of transport
- Shipboard **mortality rates**
- Results of **investigations** conducted if mortality rates reach more than 1% for a sheep voyage or 0.5% for a cattle voyage
- Reports by government-employed **Independent Observers** who travel on some ships
- Exporter and third-party reports of **suspected non-compliance** with ESCAS in destination markets
- Results of **investigations** into ESCAS non-compliance reports.

The Australian Bureau of Statistics also collects data on the livestock export industry, including the value of cattle, sheep and goats exported from Australia.

LIVEXCollect is the approved platform for regulatory reporting against ASEL requirements. Unless stated otherwise, it is the source of statistics used in this report, with calendar year analysis based on departure date. LIVEXCollect data is only available from the date of its launch, in November 2020.

The different data sets available for the livestock export industry vary in their collection methods, sources, and reporting periods. This means that statistics may not align exactly, without that pointing to an error in any one source.

LIVEXCollect

The industry's service provider, LiveCorp, co-designed the LIVEXCollect data collection platform with the department in 2020. LiveCorp now manages its ongoing operation and development. The system is used for regulatory reporting by pre-export quarantine facilities, as well as sea and air exporters.

LIVEXCollect has not only improved the standardisation and quality of data, but also put industry data in industry's hands for the first time. On ships, the data is collected by the LiveCorp Accredited Stockpersons and Australian Accredited Veterinarians responsible for overseeing the care of livestock on board.

LIVEXCollect allows exporters to view their voyage information on digital dashboards. This provides an easy to understand overview of voyage information and allows data-driven decision making. At an industry level, LIVEXCollect data provides opportunities for reporting on the industry's performance (for instance, through this report) and helps to guide the development of research priorities, industry policies, submissions to regulatory reviews, and communication activities.

Export values

In 2023, the Australian Bureau of Statistics reported that Australia exported a total of 1,324,141 livestock by sea and air, valued at more than \$1.03 billion.

	Export volume (head)	Year on year change in volume	Export value (AUD FOB)	Year on year change in value
Sheep	684,287	↑30%	\$ 73,784,530	↓10%
Cattle	623,095	↑6%	\$ 951,170,000	↓24%
Goat	14,331	↑193%	\$ 7,076,617	↑83%
Buffalo	2,428	↓52%	\$ 2,402,709	↓51%
Total	1,324,141	↑18%	\$ 1,034,433,856	↓23%

Total exports

In 2023, LIVEXCollect data showed that across the year, 267 consignments¹ were exported by sea.

- 84% went to South East Asia, primarily beef cattle from northern Australia to Indonesia and Vietnam. The average length of voyages to South East Asia was 8.6 days.
- 7% went to North Asia, primarily dairy cattle from southern Australia to China. The average length of voyages to North Asia was 18.9 days.
- 9% went to the Middle East, primarily sheep from Western Australia to Kuwait and Israel. The average length of voyages to the Middle East was 21.2 days.

Livestock exported by air made up 3% of the total number of exports in 2023 (40,594 livestock, including a small number of alpacas/llamas and camels).

- The biggest market was Malaysia, taking 15,156 sheep, primarily for slaughter.
- All goats are exported by air.
- There was a single mortality (1 sheep).
- The average air export journey from an Australian farm or Registered Establishment to discharge at the international destination took 30 hours for Malaysia, 29 hours for China, and 20 hours for Indonesia.

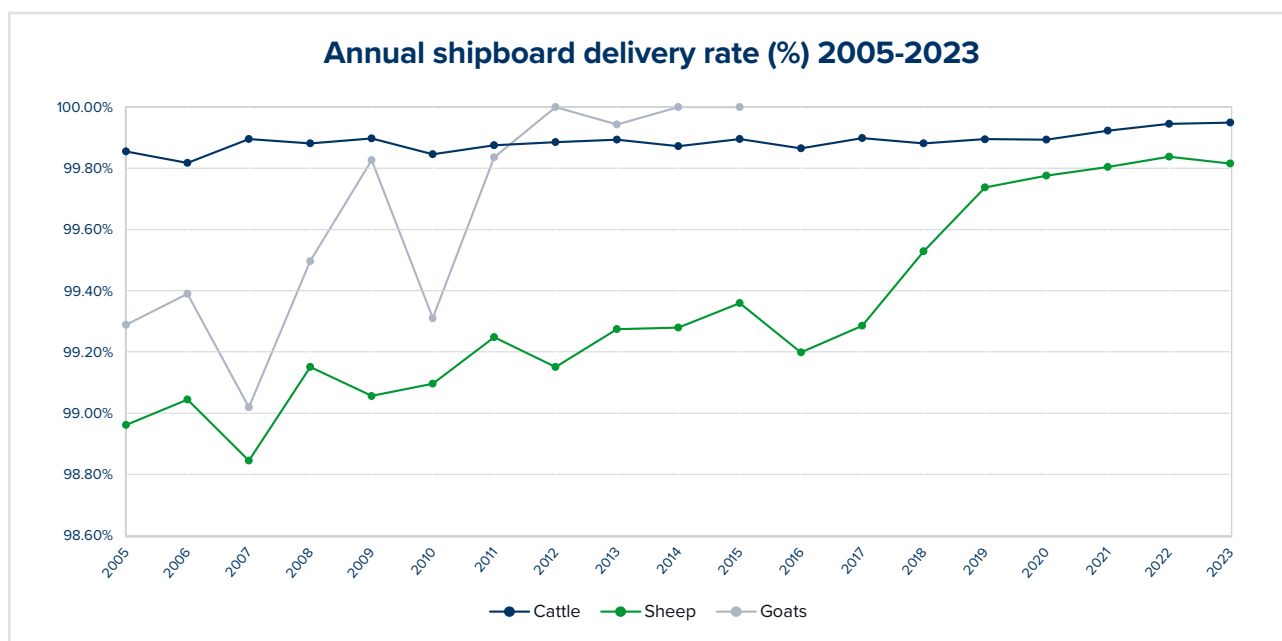
The annual mortality rate for cattle exported by sea and air in 2023 was 0.05%. This was unchanged from the previous year, making 2022 and 2023 the lowest ever annual mortality rates recorded for cattle.

The annual mortality rate for sheep exported by sea and air in 2023 was 0.18% (up from 0.16% the previous year, but 81% lower than a decade ago).

Industry performance

The performance of the livestock export industry has continuously improved over time. There has been a consistent strong performance for cattle shipments; a shift to exporting goats only by air; and significant improvement for sheep due to a mix of management and regulatory changes.

The chart below demonstrates that annual delivery rates for voyages have been better than 99% for more than a decade.



Source: Reports to Parliament 2005 – 2020 calendar years and LIVEXCollect 2021 onwards

¹ The Australian Standards for the Export of Livestock (ASEL) define a consignment as “a group of livestock that are under export preparation by one exporter and are destined for export, or have been exported, from a single seaport or airport”. This means a single consignment may be made up of multiple species and go to multiple ports, and there may be multiple consignments on a single ship.



Cattle exports by sea

The majority of cattle exported by sea from Australia are beef cattle from northern Australia destined for South East Asia. Dairy cattle are also an important component of the industry, predominantly leaving from southern states to China.

In 2023, a total of 672,710 cattle were exported by sea from Australia, up 12% compared to 2022. This was made up of 562,872 cattle exported for feeder and slaughter purposes, and 109,838 for breeding (both beef and dairy cattle).

The annual mortality rate for all cattle exported by sea in 2023 was 0.05% (333 mortalities). The department receives a daily report from each voyage and if the mortality rate reaches 0.5% of the cattle on board, exporters must **notify the department** within 12 hours.

Nearly 50% of all cattle voyages in 2023 had zero mortalities. This reflects overall low voyage mortality rates, voyage length and the historically smaller average size of consignments.

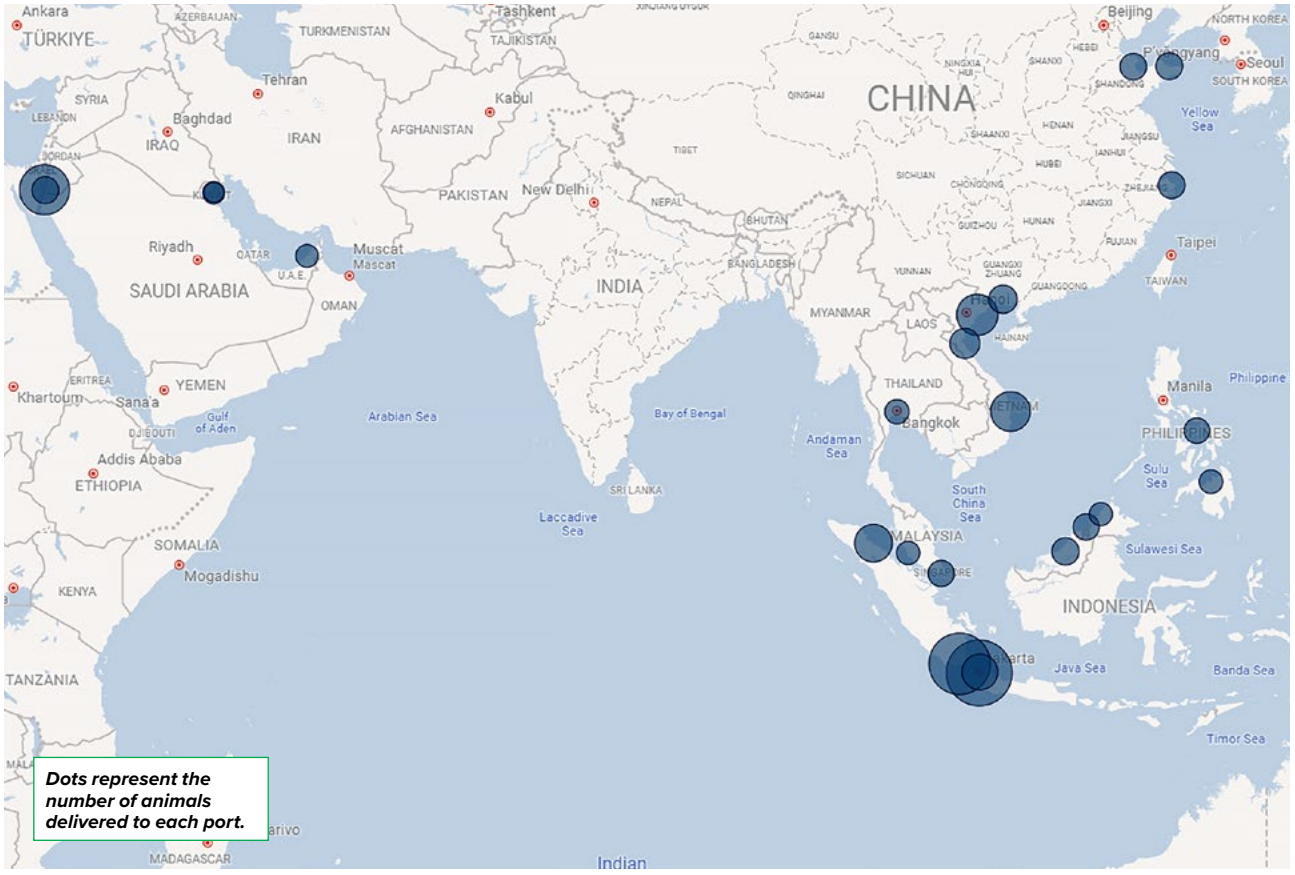
In 2023, two vessels had mechanical/maintenance issues while still in Darwin harbour and were returned to the port. Livestock re-exported have only been included once to avoid duplication.

	Total number of cattle	Year on year volume change	Annual mortality rate	Average voyage length** (days)	Number of consignments*	Average consignment size (head)
SOUTH EAST ASIA	517,298	↑23%	0.04%	8.6	223	2,320
Indonesia	358,309	↑7%	0.03%	7.6	151	2,381
Vietnam	125,251	↑115%	0.06%	11.4	50	2,505
Other SE Asia	33,738	↑26%	0.04%	9.9	22	1,519
NORTH ASIA	78,723	↓47%	0.10%	18.9	19	4,143
China	78,723	↓44%	0.10%	18.9	19	4,143
Japan	-	↓100%	-	0	-	-
MIDDLE EAST	76,689	↑152%	0.09%	21.2	22	3,493
Red Sea	75,321	↑174%	0.09%	21.4	17	4,441
Persian Gulf	1,368	↓10%	0.07%	20.1	5	272
Total cattle exports	672,710	↑12%	0.05%	10.4	264	2,548

* There may be more than one consignment on each vessel, there may be both cattle and sheep in a single consignment, and a consignment may discharge in more than one sub-region.

** ASEL defines voyage length as "the period from the time the first animal is loaded onto the vessel (the first day of the voyage) until the time the last animal is unloaded at the final port of disembarkation".

Cattle exports by destination sea port



Sheep exports by sea

All sheep exported by sea from Australia in 2023 were sourced from Western Australia and sent to the Middle East.

In 2023, a total of 632,399 sheep were exported by sea from Australia, up 30% compared to 2022, with all sheep exported for feeder and slaughter purposes.

The annual mortality rate for all sheep exported by sea in 2023 was 0.18% (1164 mortalities). The department receives a daily report from each voyage and if the mortality rate reaches 1% of the sheep on board, exporters must **notify the department** within 12 hours.

Due to the high number of livestock on each ship, zero mortality voyages are unlikely. However, regulatory and management changes in recent years have seen the annual mortality rate drop by 81% compared to a decade ago.

	Total number of sheep***	Year on year volume change	Annual mortality rate	Average voyage length (days)**	Number of consignments*	Average size of consignments (head)
PERSIAN GULF	415,036	↑4%	0.25%	19.8	8^	46,115
Kuwait	270,596	↓8%		18.5		
Oman	53,440	↑78%		23.8		
Qatar	16,000	↓36%		21.4		
Saudi Arabia	5,000	↑100%		17.6		
United Arab Emirates	70,000	↑39%		21.3		
RED SEA	217,363	↑154%	0.06%	22.1	9^	24,151
Israel	114,063	↑65%		21.8		
Jordan	103,300	↑527%		22.4		
Total sheep exports	632,399	↑30%	0.18%	21.4	17	37,200

* There may be more than one consignment on each vessel, there may be both cattle and sheep in a single consignment, and a consignment may discharge in more than one sub-region.

** ASEL defines voyage length as “the period from the time the first animal is loaded onto the vessel (the first day of the voyage) until the time the last animal is unloaded at the final port of disembarkation”. The Export Control (Animals) Rules 2021 state that, at certain times of the year, Kuwait must be the first port of unloading for voyages going to multiple countries.

*** Due to the difficulty in accurately counting tens of thousands of sheep on each ship, the number listed at loading and discharge may not always align.

^ One consignment discharged sheep in both the Red Sea and Persian Gulf. Livestock numbers have been split based on discharge country. The consignment has been allocated to the Red Sea as the majority of livestock were discharged there.

Sheep exports by destination sea port



Air exports

Air exports provide an opportunity for smaller consignments, and access to landlocked countries. All goats exported from Australia travel by air, along with a small proportion of cattle and sheep, and sometimes deer, camels, alpacas and llamas (which are covered by the same regulations).

In 2023, a total of 40,594 livestock were exported by air from Australia, up 65% compared to 2022. More than 40% of livestock exported by air departed from Sydney airport.

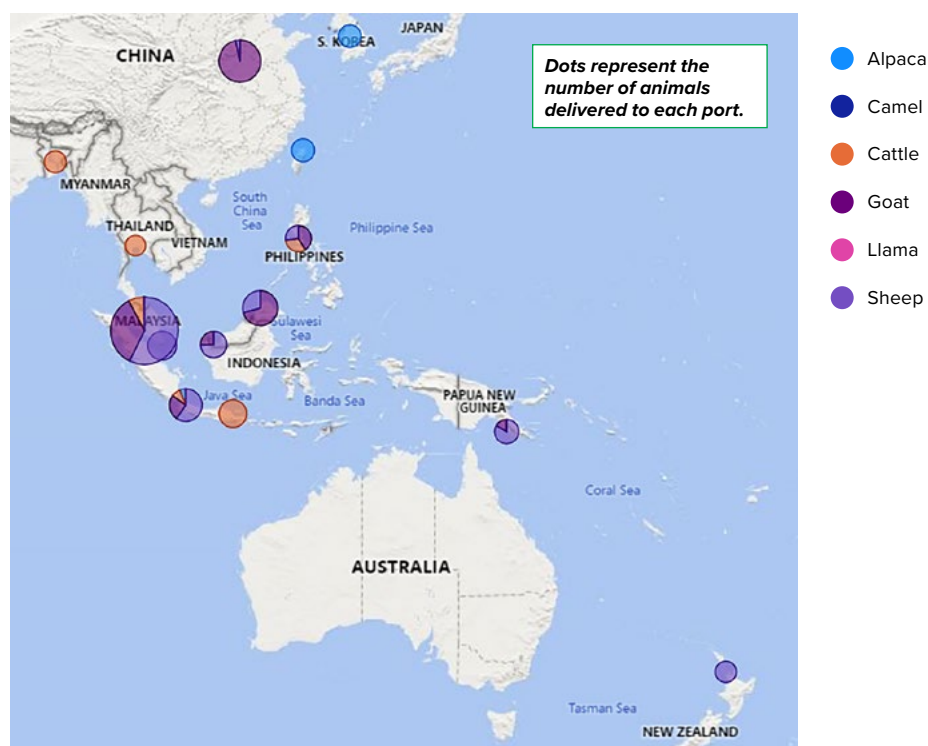
A new market for air exports opened in 2023, with 30 goats and 149 sheep sent to Papua New Guinea to help local villages improve breeding systems and support food security.

There was 1 mortality from air exports in 2023. The department receives a report from each flight and if the mortality rate reaches 1% of the sheep or goats, or 0.5% of the cattle on board, or three animals of any species, exporters must **notify the department** within 12 hours.

Destination	Average air export journey Time (hours)*	Total number of livestock					
		Cattle	Goat	Sheep	Alpaca / Llama	Camel	TOTAL
China	29	-	6,949	281	513	-	7,743
Indonesia	20	780	432	1,057	108	-	2,377
Malaysia	30	1,890	9,179	15,156	83	31	26,339
Other	34	35	1,827	905	146	-	2,913
Philippines	27	128	166	108	-	-	402
Singapore	26	-	-	820	-	-	820
TOTAL	29	2,833	18,553	18,327	850	31	40,594

* ASEL defines an air export journey as “the period from the time the first animal is loaded into a crate for transport by air (be it on the approved premises, other premises used for export preparation, at the airport or other), until the time the last animal is unloaded from the aircraft at the final destination”.

Livestock exports by air and destination



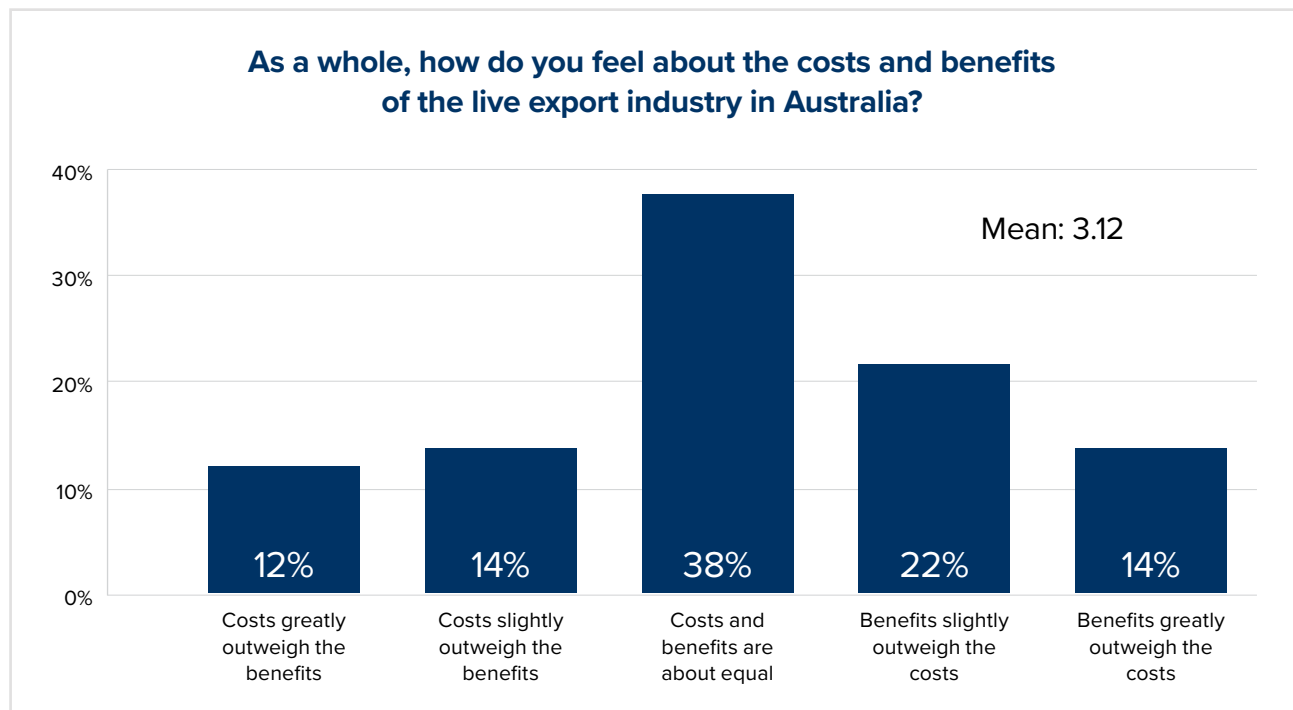
3. COMMUNITY SENTIMENT

The relationship between the Australian community and the livestock export industry is a complex one. Research to better understand areas valued by the community, and its concerns, has been carried out by an independent third party since 2019 through a series of nationally representative surveys.

The modelling shows that many Australians hold balanced and mature perceptions about the industry, rather than the binary, adversarial attitudes described by its critics. However, animal welfare remains a critical issue, as part of a broad and nuanced narrative.

As the chart below shows, around three-quarters of respondents in the 2023 survey believed the benefits of live export outweighed, or were equal to, the costs of the industry.

READ THE 2023
REPORT

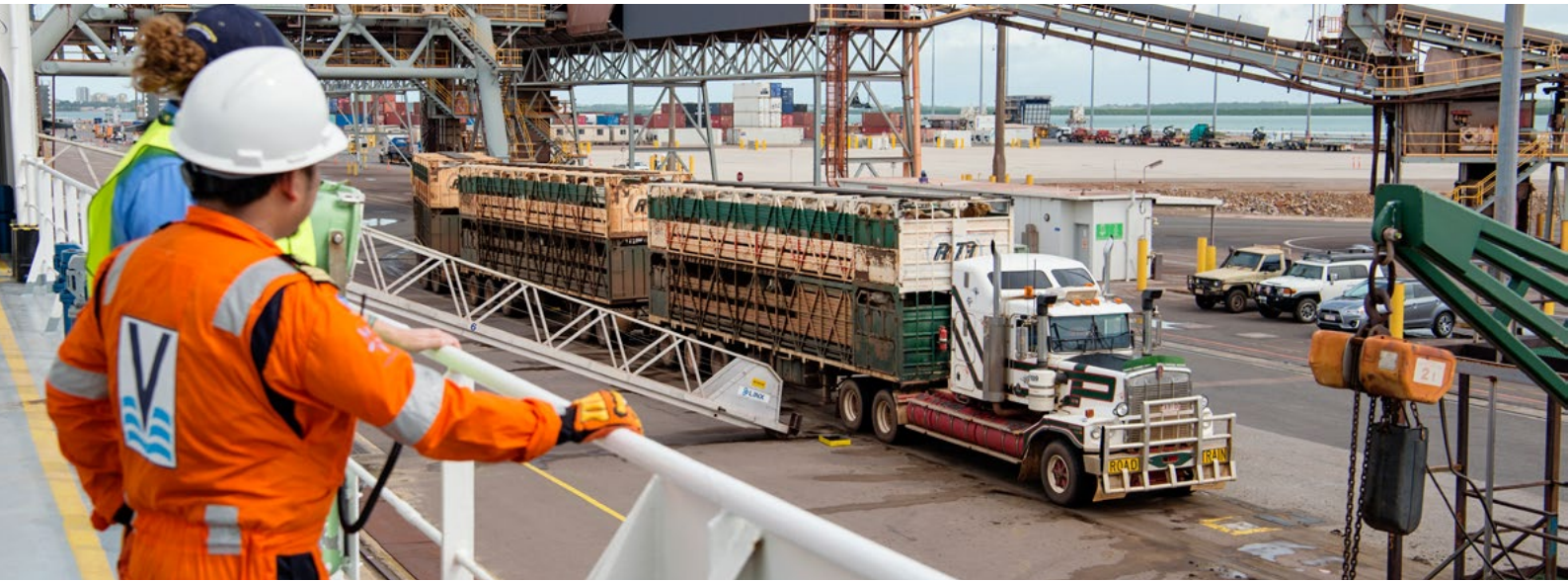


Other key findings included:

- An increase in the number of participants *disagreeing* that “live exports should be stopped regardless of the impact on farmers”, from 37% in 2019 to 42% in 2023
- A substantial increase in the number of participants *agreeing* that “the industry supports the diet and nutrition of people overseas”, from 55% in 2019 to 64% in 2023
- A decrease in participants *agreeing* that “conditions for animals on live export ships are not in line with Australian animal welfare standards”, from 54% in 2019 to 39% in 2023.

The community sentiment surveys show that a key component of building public trust, and acceptance, is Australians’ confidence that the industry is listening and responding to their concerns. This report outlines some of the activities being taken to address areas of interest identified through the research.





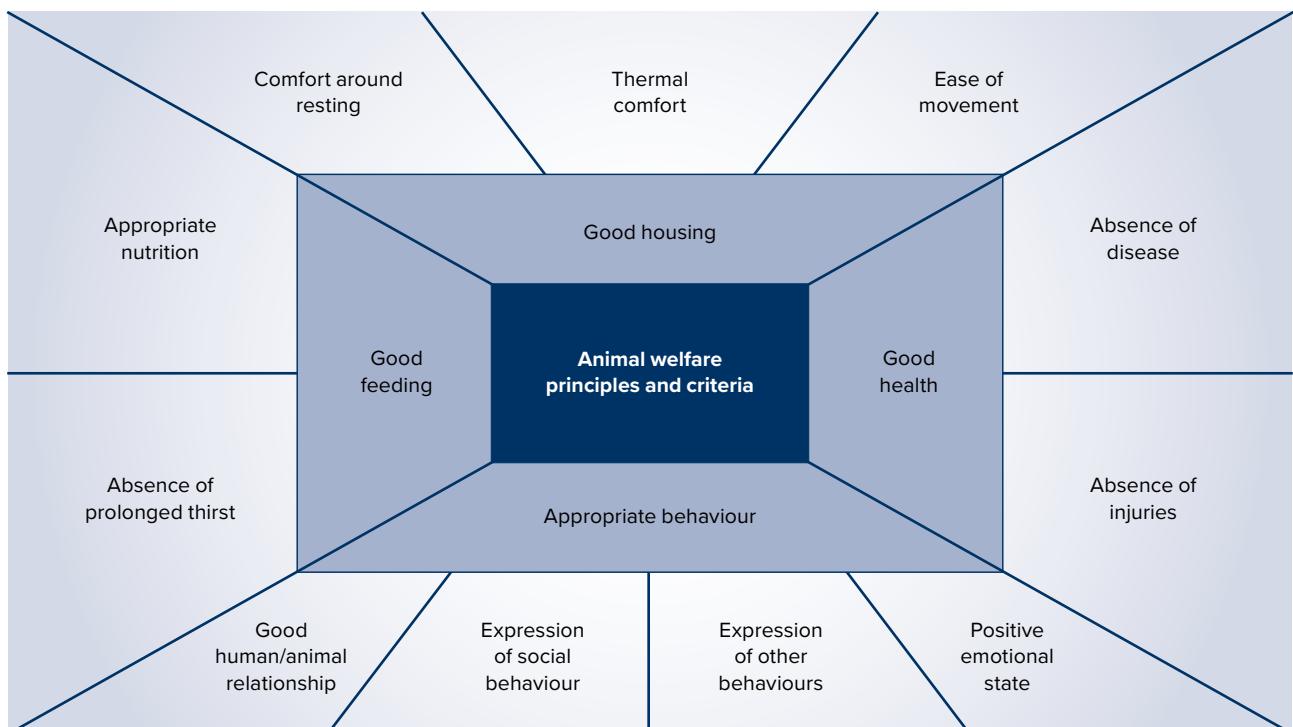
4. ANIMAL WELFARE

Animal welfare has long been recognised as a key focus for the Australian public and for those working in livestock exports.

More than half of all industry-funded research is dedicated to improving animal welfare. In a 2023 survey, exporters resoundingly voted (95%) that “Improving the uptake, adoption and commercialisation of better animal health and welfare practices and tools” was important or very important.

In recent years, a series of animal welfare indicators has been developed to monitor outcomes on livestock export ships. The indicators are based around globally recognised principles and their associated criteria, as shown in the diagram below, and cover environmental conditions, access to food and water, management activities, and animal outcomes. These data are being collected by shipboard personnel and recorded through the LIVEXCollect tool for daily reporting to the department.

Planning began in 2023 for a new research project to create a model capable of accurately interpreting and aggregating the data being collected to provide insights on the welfare of animals in near real time.



In-market welfare activities

Maintaining animal welfare once the livestock reach their destination overseas is another priority area for the industry, as well as being mandated through regulation. Welfare at the point of slaughter is a recognised concern, and industry provides a significant amount of training to keep standards high.

In Indonesia, for instance, Animal Welfare Officers (AWOs) are employed in feedlots and abattoirs to train new staff about Australia's livestock export standards for animal handling and slaughter, and to monitor compliance. An AWO certification scheme has been set up by industry to recognise the importance of this role and provide opportunities for career progression. Support is also provided to Forum AWO, which brings the group together to increase communication and professional networking.

A virtual reality (VR) training tool was developed in 2023 to support workers in market, especially in facilities which process just a few animals a night. The tool allows workers to gain confidence in the best practice methods of stunning cattle without using live animals during training, and also allows trainers to assess ongoing competency.

New animal welfare standards were announced in Vietnam in 2023, developed with support from Australia's livestock export industry and an Australian Government grant. These are consistent with Australia's domestic animal welfare laws, encourage the use of stunning, and will apply to local cattle as well as those imported from Australia.

READ ABOUT THE VR TRAINING TOOL



READ ABOUT VIETNAM'S NEW STANDARDS



Photo: Impetus Animal Welfare

BEHAVIOUR ON SHIPS

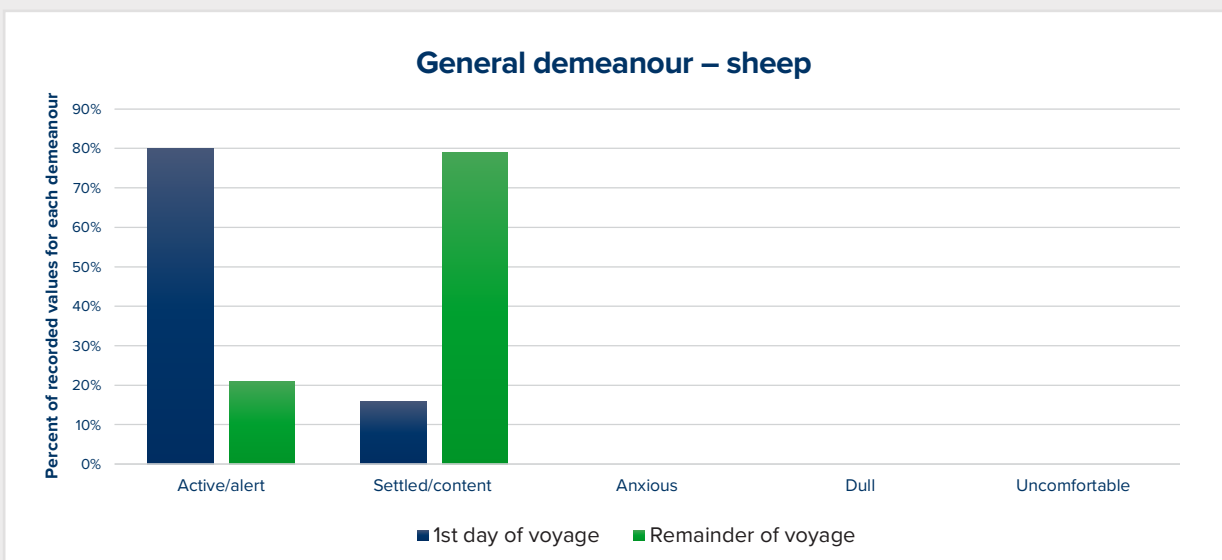
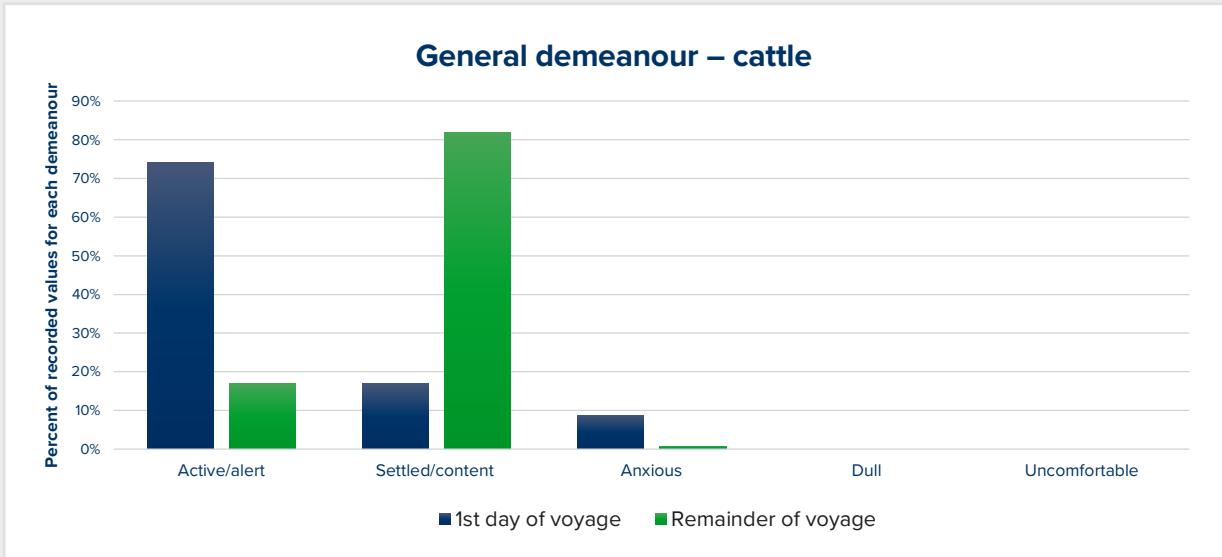
One of the animal welfare indicators collected on livestock export ships is ‘general demeanour’ — in effect, assessing the livestock’s ‘body language’. This measure is recorded every day for each deck, as the predominant state for each species.

This is an increasingly recognised animal welfare reporting method that can be used to describe how animals behave and interact with each other and their environment. A range of positive, neutral and negative demeanour terms have been identified for assessing livestock during sea voyages.

A benefit of scoring demeanour is that it can be used to identify positive welfare states; for example, where animals appear content and engaged with their surroundings. Most other welfare indicators can only determine an absence of poor welfare.

As the charts below show, the LIVEXCollect data from 2023 showed a relationship between positive attributes in ‘general demeanour’ and day of travel. The majority of cattle were described as active/alert (considered positive or neutral) or anxious on the initial day of the voyage, but as settled/content on subsequent days, possibly as they became more accustomed to their surroundings. Similarly, sheep tended to be observed as more settled/content after the initial day of the voyage and generally remained so throughout the journey.

These results suggest that livestock tend to adjust to the shipboard environment and their on-board routine. This is not unlike livestock in other contexts, such as feedlots, and demonstrates their ability to adapt to new surroundings and management practices.



5. MORTALITY

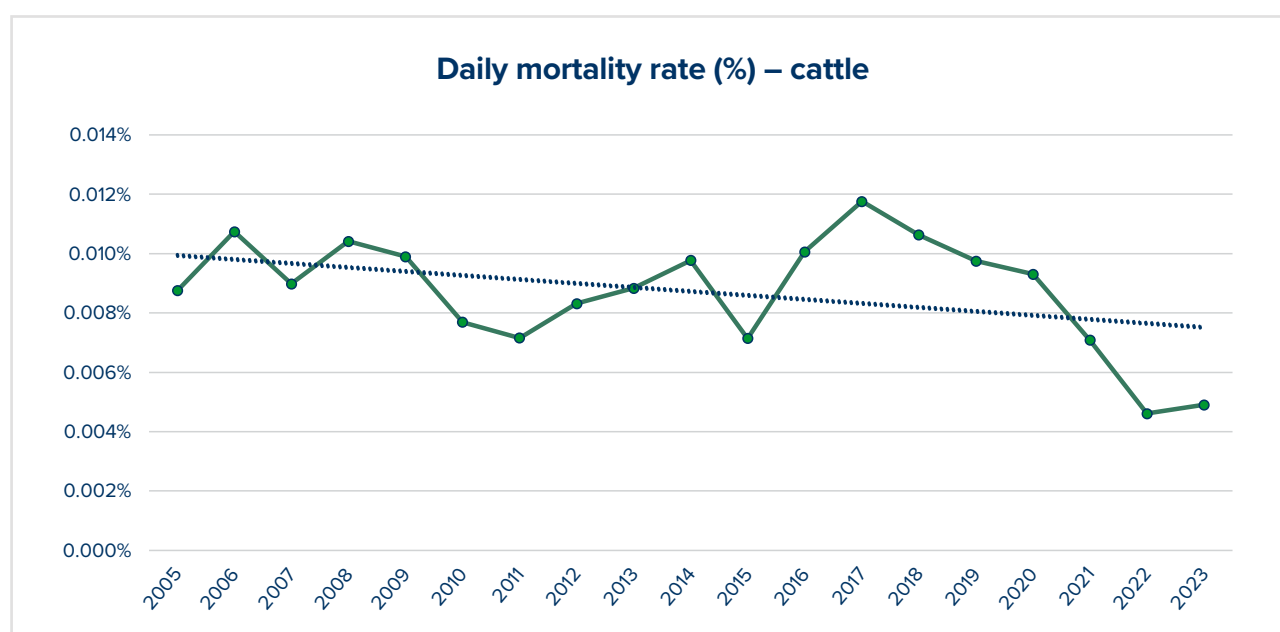
Shipboard mortality remains the primary performance measure used by industry and the regulator, as it is absolute, objective and easily compared over time.

However, the industry recognises (and shares) the community's desire to complement mortality data with other metrics to better understand the animals' experience. More than a decade of research has been put into finding and implementing scientifically valid, practical and meaningful measures of animal welfare.

Alongside this, significant changes have been made to the selection and preparation of livestock, their management prior to and during export, and the regulations surrounding the industry. In combination, these factors have seen mortality rates fall to a fraction of previous levels, particularly for sheep.

Historically, the department and industry have used overall voyage mortality rate to assess livestock export performance. However, voyage mortality rates are influenced by voyage duration: other things being equal, the longer the voyage, the higher the voyage mortality rate will be. For this reason, daily mortality rates are an important measure of mortality performance as they remove the influence of voyage duration, and allow comparison to other sectors (e.g. farms).

Cattle daily mortality rates over time



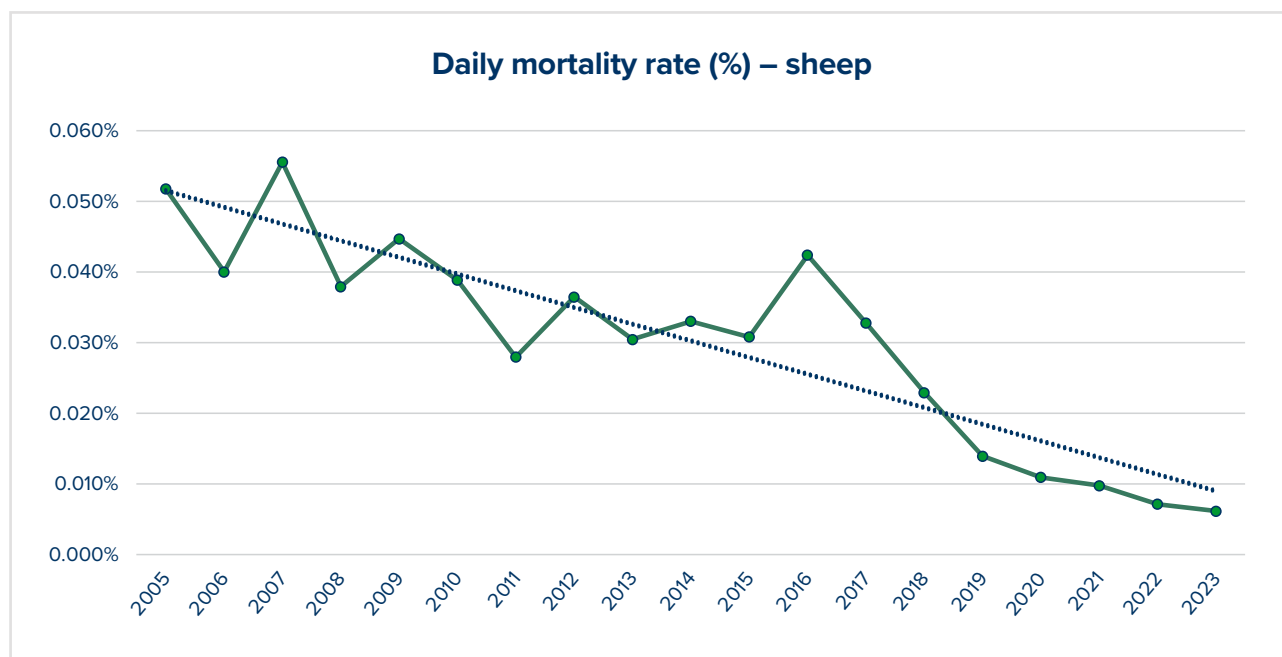
Source: Reports to Parliament 2018 – 2020 calendar years and LIVEXCollect 2021 onwards

Major points to note from chart above:

- The average daily shipboard mortality rate for cattle in 2023 was 0.0049%. This is just slightly higher than the lowest ever average daily mortality rate, recorded the previous year, which was 0.0046%.
- Over the last decade average daily shipboard mortality rates for cattle ranged from 0.005% to 0.012%, with an overall downward trend.



Sheep daily mortality rates over time



Source: Reports to Parliament 2018 – 2020 calendar years and LIVEXCollect 2021 onwards

Major points to note from chart above:

- The average daily shipboard mortality rate for sheep in 2023 was 0.0062%, the lowest on record.
- The average daily mortality rate in 2023 compares to average daily mortality rates of 0.010% in 2020, 0.029% in 2015 and 0.038% in 2010 – that is, average daily mortality rates for sheep are less than one-fifth of the levels they were in 2010.
- Over time, the average daily shipboard mortality rates for sheep have displayed a strong downward trend.

While mortality rates from other livestock sectors are not reported as regularly or comprehensively, the livestock export industry compares favourably to data that is publicly available. For example, the Australian Bureau of Agricultural and Resource Economics and Sciences farm survey² reported a sheep mortality rate of 4.5% in 2019-20. This equates to a daily mortality rate of 0.0123%.

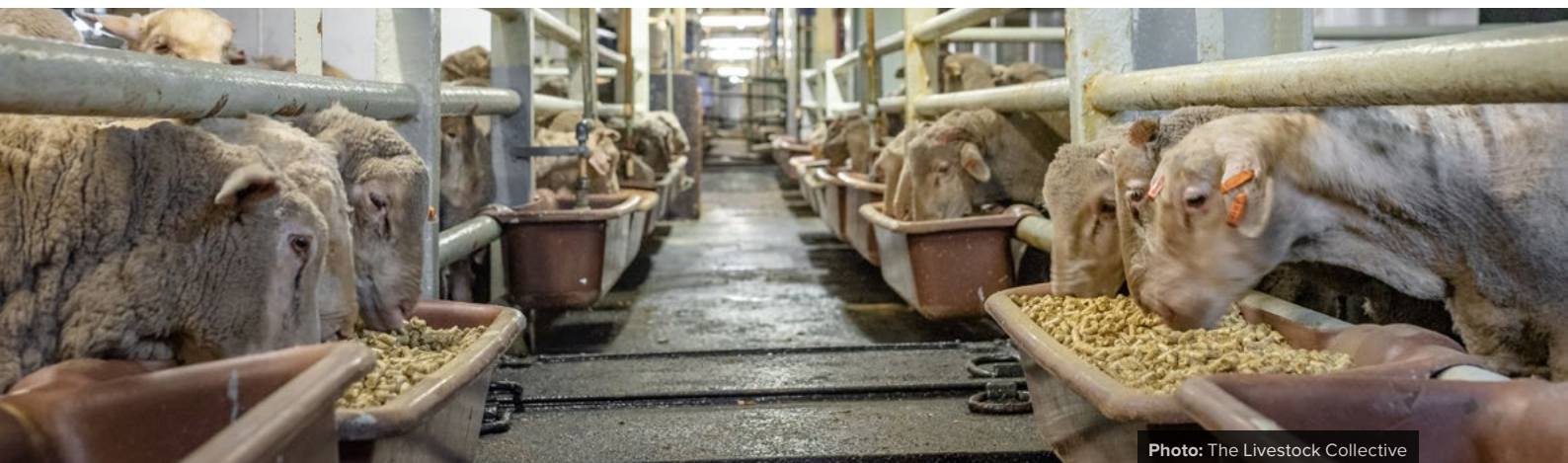


Photo: The Livestock Collective

² ABARES (2021). Farm Survey Data for Beef, Lamb and Sheep Industries. All Sheep Industries Combined. Sources via *An Industry Life Cycle Assessment for Sheep Production in Western Australia* WA – DPIRD (https://www.agric.wa.gov.au/sites/gateway/files/An%20Industry%20Life%20Cycle%20Assessment%20for%20Sheep%20Production%20in%20Western%20Australia_1.pdf)

6. REGULATION

Community sentiment surveys show that regulation of livestock exports is reassuring to members of the public. The industry operates under multiple pieces of legislation and regulation, starting when livestock are selected and enter pre-export quarantine facilities, through sea voyages and flights, to the point of slaughter overseas. The **regulatory framework** includes:

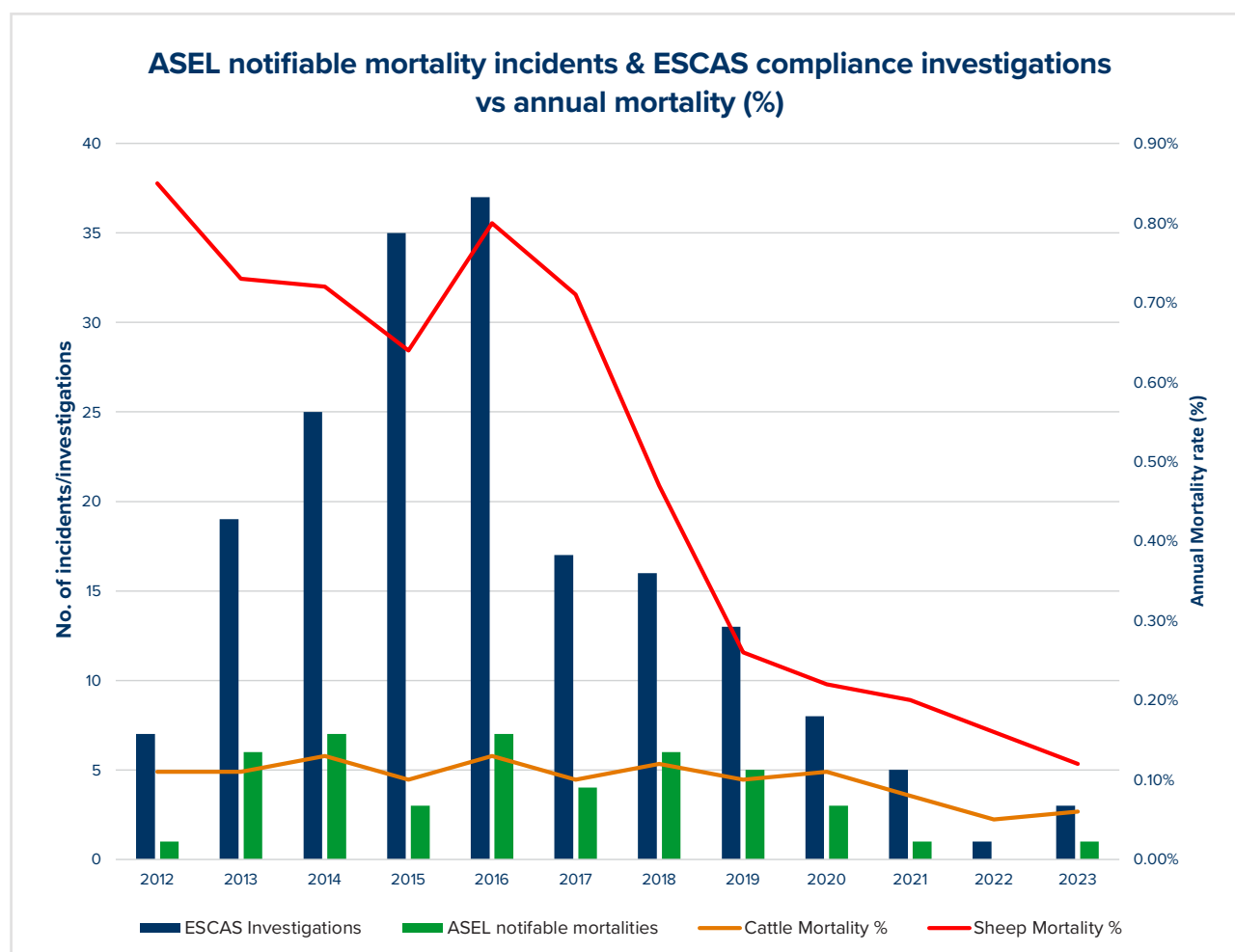
- *Export Control Act 2020* and *Export Control (Animals) Rules 2021*
- *Australian Standards for the Export of Livestock (ASEL)*, which set out the minimum animal health and welfare standards exporters must meet during preparation and export of livestock.
- *Exporter Supply Chain Assurance System (ESCAS)*, which requires exporters to have arrangements in place for the humane handling and slaughter of livestock in importing countries. Australia is the only country in the world with this kind of regulatory system.
- *Marine Order 43* (Cargo and cargo handling—livestock), which outlines the requirements to carry livestock from Australia by ship.

There is a significant level of transparency about the industry and its performance. The department regularly publishes a range of statistics, provides *Reports to Parliament* about mortality rates on each sea voyage, and releases the **results of investigations** should there be a notifiable mortality event on a ship or reported non-compliance with ESCAS.

Exporters must immediately **notify the department** if the mortality rate on a single voyage or flight goes over 1% for sheep and goats, 0.5% for cattle, or three animals of any species (whichever is greater).

ESCAS is underpinned by a system of reporting and independent audits, with exporters expected to demonstrate they have control of livestock throughout their journey, and that animal welfare is maintained. Exporters are required to report and address any non-compliance within their supply chains, and reports may also be made by auditors and third parties.

As the chart below shows, there has been continuous improvement in the industry's performance over time, with both mortality rates and reports/instances of non-compliance and notifiable mortalities on a downward trend.



7. ECONOMIC BENEFITS

In 2023, the value of livestock exported from Australia was more than \$1.03 billion (ABS data):

- Sheep = \$73,784,530
- Cattle = \$951,170,000
- Goats = \$7,076,617

A significant majority of this value is retained by the producers who raise the animals being exported. Wide-ranging employment opportunities are also created by the industry, including farm workers, buyers, livestock transporters, veterinarians, shearers, feed suppliers, port workers and shipboard staff, as well as export company staff themselves.

The community recognises the benefits of livestock exports, with 79% of respondents to the 2023 sentiment survey agreeing that the industry delivers economic benefits for the country, and 68% agreeing that it provides important alternative markets for Australian farmers.

Research has highlighted the mutual benefits of live exports with Australia's dairy industry, with around 70% of the value retained by farmers. In 2020-21, this was worth \$180 million.

Live exports provide a market for excess dairy heifers, allowing farmers to diversify their income. Australian cattle are highly valued overseas for their genetics, health status and resilience to different climates.

READ THE REPORT ON DAIRY CATTLE EXPORTS



More than 90% of sheep being exported are sourced from Western Australia. Research showed that just under half of the value of live sheep exports was retained by farmers, with the trade also underpinning many related businesses in south-west WA.

With fewer marketing options than the east coast, the trade increases competition and supports sheep prices, as well as providing an important way for farmers to reduce their flock numbers if feed is short, such as during dry conditions.

The economic analysis found the potential value of the most common type of exported sheep, a Merino wether (male sheep), would fall 19%, or \$21.84 per head, should the live sheep export trade cease. During a period of high supply and low demand, such as drought, it could be as much as 33%, or \$37.44 per head.

READ THE REPORT ON SHEEP EXPORTS



A report released in 2022 showed that all live cattle exports (directly and indirectly) contributed up to \$1.4 billion to the Australian economy and employed more than 6,573 people full time (directly and indirectly).

Its impact is particularly important in northern Australia, which provided 74% of the \$1 billion farm gate value and accounted for 82% of all direct employment.

READ THE REPORT ON NORTHERN CATTLE EXPORTS

