





June 2024



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About the research

The survey, undertaken by MLA, is used to help industry determine grassfed beef cattle production forecasts and to understand the breed composition of the Australian herd on a national, state and regional basis. It is one of the inputs into the MLA beef industry forecasting models.

The research has three primary objectives, namely to:

- Measure and report on herd population, demographics, beef cattle supply information and producer production intentions.
- ✓ Ensure estimates are reliable and based on sufficiently large sample sizes to ensure the robustness and accuracy of estimates. The sample should be representative or weighted to be representative of the producer population structure.
- ✓ Provide capacity to explore and investigate results at a smaller area and segment level. This will include – among other things – across states and MLA reporting regions.

The following report provides an overview of results for the APRIL 2024 survey.

The April 2024 survey

Feedback was sought from grassfed beef cattle producers over the period 3rd April 2024 – 22nd May 2024. Producers were initially invited to complete an online survey with the final sample complemented with a smaller number of phone interviews.

A total of 3,223 producers from across Australia respond to the survey invitation. The feedback was then weighted, using the latest available data from the Levy Payer Register, to produce industry estimates.

A full breakdown of the sample make up, plus a description of the Levy Payer Register data used and the weighting approach is included as an attachment to this report.

Please note that the April 2024 survey was instituted by MLA to support the industry with reliable data because of the reduction in the scope of agricultural surveys being conducted by the ABS. There are number of new design elements and questions and so caution should be exercised when comparing these results with previously released data.



State of play: an overview of the industry analysis

State of play...

The beef cattle market continues to be a highly dynamic market.

Some industry participants have questioned the initial forecasts of El Niño and the impact of this information as some producers has used this information in their planning for the upcoming seasons.

There remains significant pressures on producers including increasing input costs, challenges around workforce shortages as well as supply chain and market pressures (domestic and global). Prices have fluctuated creating further pressure on some producers attempting to navigate a somewhat volatile market.

The content opposite provides a brief overview of the beef cattle sector by the agribusiness units within Rabobank and ANZ Agribusiness. This information provides views on the market in the most recent period.

On Friday 17th May 2024, the Federal Government announced a schedule for the cessation of live sheep exports. While the decision was not unexpected, the timing of the decision appeared to surprise many industry participants. We would note that the decision occurred after data collection for this survey was almost completed, the issue remained top of mind for many producers.

The discussion provides a useful context for interpreting the results in the April 2024 Beef Producers Intentions Survey.

RABOBANK Commentary

- ✓ Steady prices now in line with same time last year. This reflects a relatively balanced marketplace.
- \checkmark Dry conditions in SA could see a few more cattle on the market.
- ✓ Cattle on feed numbers hit new record (up 17% on the same first quarter result last year). SA up 53% and QLD up 24% while WA and Victoria were down 8% and 2% respectively.

ANZ Agribusiness Commentary:

- ✓ Some stability is emerging in cattle prices, and while well off the highs of a few years ago, they have also bounced off the lows felt last year. Prices across cattle categories remain below where they sat this time last year.
- ✓ Season remains the clearest concern for many producers, primarily in the drier parts of southern and Western Australia. For those producers in south and west, in areas struggling for standing feed, hay or other fodder reserves, this may represent an opportunity to destock slightly until a much-awaited spring break.
- $\checkmark\,$ There is very obviously residual concern over the direction of prices and weather forecasts.
- ✓ While slaughter rates are high, they are returning to a long-term average after a number of years of relatively low supply
- ✓ Exports remain strong, although coming off a low base, however the impact of declining US exports is already being seen in the Australian number.
- ✓ On a domestic front, some concerns exist about the ongoing cost of living issues putting downward pressure on beef consumption.

1. Rabobank. Australia Agribusiness Outlook, June 2024. Source: https://www.rabobank.com.au/content/dam/ranz/au/pdf/agribusiness-monthly/2024/Rabobank. AU-Agribusiness-Monthly_June 2024.pdf

2. ANZ Agribusiness: Commodity ANZ Agri In Focus, June 2024

About the report

The report provides a summary of the feedback provided by producers who completed the April 2024 Beef Producer Intentions Survey (BPIS). Estimates of herd size, sentiment and forward projections presented in this report are made using the data collected in the survey.

There are several aspects about the survey design that should be considered when reviewing or interpreting the results from the April 2024 BPIS survey.

With these design issues in mind, the results from the April 2024 Beef Producers Intention Survey (BPIS) are presented.

The report structure

Producer sentiment about the next 12 months for the beef cattle industry

A profile of the on-farm grassfed adult beef cattle herd

Producer intentions for their on-farm grassfed adult beef cattle herd



Complementary diagnostics

An overview of producer's breeding program

An overview of producer's sales program

Estimates provided in this report are made from weighted survey data. Weighting of the survey data was important to ensure the sample of 3,223 producers who responded to the survey were representative of the total base of Australian grassfed beef cattle producers. Details on the weighting is provided in the attachments to this report.

Different production systems

There are many different production systems in operation across this market. For the purposes of the survey, two main production systems were used as a framework to collect the data from producers. A set of questions for 'southern producers' and for 'northern producers' were developed. While there is significant crossover in the questions between the two surveys, there are specific nuances which accommodated the clear differences that exist.

That said, even within these two broad production system descriptions, individual producers will have developed, adapted and continue to evolve their own specific practices.

National level estimates

Bearing in mind the sometimes different on-farm practices and systems, an effort was made in the analysis and report to calculate and provide national level estimates. There are likely to be nuances when aggregating results from different production systems and this should be considered when looking at national level results.

The report covers several core measurement areas

The April 2024 report includes coverage of several different measurement areas, including:

- Producer sentiment
- o Herd profiles
- Breeding programs
- Producer intentions
- o Sales to date and forecast

BPIS just one input into the MLA forecasting models

It is acknowledged that the estimates from BPIS will be just one of the inputs into the well-established forecasting models developed and supported by MLA. The models provide a more comprehensive approach to forecasting and provide important measures for industry. Results from the current BPIS survey should be considered in this context.



observations and insights

Beef Producers Intentions Survey

April 2024

We spoke to 3,223 producers about their industry sentiment and the profile and intentions for their on-farm grassfed adult beef cattle herd...



Observations and insights

While the purpose of the research did not include the presentation of an interpretation of the survey results, some initial observations and insights has been provided in the following discussion.

Producer sentiment

Producers have reported a more positive outlook for the future of the beef cattle industry over the next 12 months. Results indicate that producers are optimistic about the future of the beef cattle sector (Nett Sentiment: +34 up from +11 in November), with one in two producers responding to the survey reporting a positive outlook (50% positive, 16% negative).

From the analysis we note that:

- Northern producers are more positive (Nett Sentiment of +45 up from +25) than Southern producers (+33 up from +6)
- There are variations across states, but the result suggest that Queensland, NSW and Victorian producers are more positive than producers in other states while producers in WA continue to report a far less positive outlook (-25).
- The confidence about the future was consistent across producers of all sizes.

Producers were asked as to whether their outlook had changed over the last 6 months. Interestingly:

- o Among producers who had a positive outlook, about one in three said their outlook had improved over the last six months (the report explores the reasons for this); while
- Among producers who had a negative outlook, about seven in ten said their outlook had become more negative over the last six months.

Producers outlook for the next 12 months will be one of the factors in their planning and forecasting for this same period.



Observations and insights

A profile of the on-farm grassfed adult beef cattle herd

The April 2024 BPIS had, amongst other measures, a focus on measuring some of the demographics of Australia's herd. From the results, we note that:	Total estimated on-farm grassfed adult beef cattle herd size:	26,128,840	
From the survey it has been estimated that there are approximately just over 26M on-farm grassfed adult beef cattle on hand.			% of total herd size
Over half of the on-farm grassfed adult beef cattle on hand are breeding cows with heifers	Breeding cows	13,776,083	53%
making up an additional 15% of the total estimated herd size.	Heifers	3,863,528	15%
Based on the information provided by producers responding to the survey:	Steers (under 2 years old)	6,442,120	25%
 Southern Australia makes up approximately 55% of the total estimated on-farm grassfed adult beef cattle herd size; while 	Bulls	630,341	2%
 Northern Australia accounts for the remaining 45% 	Castrated males (2+ years)	1,416,767	5%

Across the states, we see that Queensland accounts for almost half the herd size (48%), with NSW 20% and the remaining states making up the balance.

When producers were asked about their actual and planned sales over the first half of 2024 the survey has estimated that

- An estimate of just under 2M cattle is reported to have been sold in the first quarter of 2024 (representing some 43% of total planned sales in the first half of 2024).
- Producers also reported that around 2.6M will be sold in the second guarter of 2024. .
- Southern producers reported a relatively even split in sales across the first half of 2024 (49% of the forecast sales in the first quarter and 51% in the second quarter). In contrast, Northern producers reported a more back ended sales program (33% in the first quarter and 67% in the second quarter).



Observations and insights

Producer intentions

Analysis of the feedback provided shows that:

- At the producer level (that is considering each producer equal), there is a net intention to increase their on-farm grassfed adult beef cattle herd in the next 12 months:
 - 28% indicating they would increase their herd size;
 - 54% indicating it would remain unchanged; and
 - 19% indicating they would decrease their herd size.

We note this is a clear change in intention from that reported in the November 2023 survey where there was a stronger intention to reduce herd sizes. While the results do not indicate producers have all shifted to a rebuild focus, there has been a noticeable shift away from herd reductions.

With this shift in mind, we note that:

- Producer intentions are relatively consistent across both Northern and Southern producers.
- Producers in NSW and QLD were more likely to report an intention to increase their herd size than producers from other states.
- Producers in WA and SA were less likely to report an intention to increase their herd size
- The results are consistent with the sentiment and outlook producers have. A more positive outlook is typically correlated with an intention to grow.

The detailed results from the April 2024 Beef Producer Intentions Survey (BPIS) now follow.

Intend to increase my beef cattle herd	28%		
Intend to keep my beef cattle herd size the same		54%	
Intend to reduce my beef cattle herd			19%
Nov-23:	38%	14%	48%



producer sentiment about the next 12 months of the beef cattle industry

Sentiment: outlook for the beef cattle sector

Q4. Firstly, how do you feel about the future of the **beef cattle** industry over the next 12 months? Would you say you feel...? Base: All respondents, n = 3,223



Nett Sentiment (scale of -100 to +100)



Producers reported a much stronger outlook for the industry than reported in November 2023.

One in two producers see a positive future over the next 12 months (50%), while a much smaller cohort see a negative outlook (16%). About one in three (31%) are uncommitted and most likely uncertain about the next 12 months.

There are differences between Northern (+45) and Southern producers (+33) and across states.

					State					Levy	Band		
		1SW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	1	,074	899	145	114	721	239	1,949	489	371	268	81	65
Nett Sentiment		+42	+44	+18	+7	+35	-25	+33	+32	+40	+45	+58	+44
								1					
Change from November 2023		N 35	↑ 18	个 14	个 19	↑ 22	↑ 3	↑ 27	↑ 15	个 23	↑ 18	↑ 23	↑ 12



Sentiment: has their outlook changed in the last 6 months?

Q5. Have you changed your outlook in the last 6 months? * Base: All respondents, n = 3,223.



Producers outlook for the future changes as the operating, trading and environmental (including climate) conditions move and adjust to movements in domestic and global markets.

In the April 2024 BPIS, producers were asked if their outlook for the industry had changed.

Among producers who had a positive outlook, about one in three said their outlook had improved over the last six months (the report explores the reasons for this); while

Among producers who had a negative outlook, about seven in ten said their outlook had become more negative.

The results reflect the fluidity of markets and producers' assessment of the future and their own farming businesses. It also highlights that the same issue can be interpreted in different ways by different producers.

Sentiment: factors causing a more positive outlook

Q6. What factors have emerged over the last 6 months that has caused your outlook of the future of the beef cattle industry to be more **positive**? * Base: All respondents who have become more positive in their outlook over the last 6 months, n = 651

- 37% Improving prices
- 34% More rain
- 18% Weather
- 11% Prices and supply in overseas markets
- 9% Stronger seasonal conditions
- 7% Steady markets / prices domestic and global
- 6% Stronger / improved confidence
- 5% Farm / business management related feedback
- 4% Demand domestic and global
- 4% More feed available



Sentiment: factors causing a more negative outlook

Q6. What factors have emerged over the last 6 months that has caused your outlook of the future of the beef cattle industry to be more **negative**? * Base: All respondents who have become more negative in their outlook over the last 6 months, n = 748

- 36% Lower than expected prices / price falls
- 19% Cost of production / input costs
- 14% Government regulations (inc. Live Export, biosecurity levy)
- 12% Prices (no further information)
- 10% Volatile / uncertain prices
- 10% Lack of rainfall / dry conditions
- 8% Weather
- 7% Lack of space / competition in slaughter markets
- 4% Supermarket-related feedback
- 3% Current seasonal conditions
- 1% Farm-related issues
- 1% Personal issues (age, retirement)





a profile of the on-farm grassfed adult beef cattle herd

Herd profile breakdown

Q7. The next set of questions look to get an estimate of your current grassfed beef cattle herd. When considering estimates, please include a count across **all properties** and include **all breed types**.

On **31 March 2024**, what were the total number of the following types of cattle on hand across your grassfed beef cattle herd? Base: All respondents, n = 3,223

26,128,840

% of total % of producers Definitions of cattle types presented to producers: herd size with type of cattle 13,776,083 53% 90% Breeding cows Breeding cows: No definition provided. 15% 74% Heifers: Female joined to have her first calf regardless of age. Heifers 3,863,528 25% 83% 6,442,120 Steers (under 2 years old): Steers less than 2 years old. Steers (under 2 years old) 2% 630.341 76% Bulls: Bulls used or intended for breeding (12 months or older). Bulls 5% 1.416.767 23% Castrated males (2+ years): Castrated males (2 years or older). Castrated males (2+ years)

Important note about the estimates

Total estimated on-farm grassfed

adult beef cattle herd size:

When considering the estimate of the national on-farm grassfed adult beef cattle herd size (reported above), it should be noted that:

- This estimate is based on survey respondent data.
- o The estimates have been weighted by the number of producers reported on the Levy Payer Register. This includes producers of all sizes and is substantially larger than the number of producers reported in the ABS surveys.
- o The estimate does not include any measure of the number of calves born so far (at the date of the survey) or likely to be born in the next few months

Herd profile breakdown

Southern Australia

Q7. The next set of questions look to get an estimate of your current grassfed beef cattle herd. When considering estimates, please include a count across **all properties** and include **all breed types**.

On **31 March 2024**, what were the total number of the following types of cattle on hand across your grassfed beef cattle herd? Base: All respondents categorised or self-identified as a Southern Australian producer, n = 2,679

Northern Australia

Q7. The next set of questions look to get an estimate of your current grassfed beef cattle herd. When considering estimates, please include a count across **all properties** and include **all breed types**.

On **31 March 2024**, what were the total number of the following types of cattle on hand across your grassfed beef cattle herd? Base: All respondents categorised or self-identified as a Northern Australian producer, n = 544

Total estimated on-farm grassfed adult beef cattle herd size:	14,383,334		
		% of total herd size	% of producers with type of cattle
Breeding cows	7,691,587	53%	89%
Heifers	2,244,226	16%	73%
Steers (under 2 years old)	3,638,028	25%	83%
Bulls	330,870	2%	74%
Castrated males (2+ years)	478,624	3%	20%

Total estimated on-farm grassfed adult beef cattle herd size:

11,745,505

		% of total herd size	% of producers with type of cattle
Breeding cows	6,084,496	52%	91%
Heifers	1,619,302	14%	83%
Steers (under 2 years old)	2,804,092	24%	85%
Bulls	299,471	3%	84%
Castrated males (2+ years)	938,143	8%	40%

Herd profile breakdown

Q7. The next set of questions look to get an estimate of your current grassfed beef cattle herd. When considering estimates, please include a count across **all properties** and include **all breed types**.

On **31 March 2024**, what were the total number of the following types of cattle on hand across your grassfed beef cattle herd? Base: All respondents, n = 3,223

			St	ate					Levy	Band		
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	1,074	899	145	114	721	239	1,949	489	371	268	81	65
Total herd size reported	5,274,070	12,662,914	979,148	1,296,526	3,399,507	1,742,674	5,838,581	2,599,582	3,132,181	4,069,265	3,133,366	7,355,866
% of total herd size	i <u>-</u>	-	-	-	-	-	I <u>.</u>	-	-	-	-	-
Breeding cows	55%	51%	56%	49%	52%	61%	55%	56%	55%	51%	55%	49%
Heifers	15%	15%	15%	18%	15%	14%	16%	15%	15%	17%	12%	14%
Steers	25%	24%	24%	29%	28%	19%	23%	23%	24%	24%	25%	27%
Bulls	2%	2%	2%	2%	2%	3%	2%	3%	2%	2%	3%	2%
Castrated males	2%	8%	2%	2%	3%	3%	4%	3%	4%	6%	5%	7%
% of producers with type of cattle	-	-	-	-	-	-	-	-	-	-	-	-
Breeding cows	91%	91%	93%	86%	85%	95%	89%	90%	93%	93%	91%	91%
Heifers	74%	81%	78%	72%	67%	77%	71%	78%	81%	88%	85%	85%
Steers	83%	84%	84%	91%	83%	75%	82%	82%	86%	88%	91%	97%
Bulls	76%	84%	73%	76%	65%	85%	71%	84%	88%	88%	86%	90%
Castrated males	17%	33%	19%	21%	22%	23%	22%	19%	25%	33%	43%	51%

Estimate of the national on-farm grassfed adult beef cattle herd size

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Q7. The next set of questions look to get an estimate of your current grassfed beef cattle herd. When considering estimates, please include a count across **all properties** and include **all breed types**.

On **31 March 2024**, what were the total number of the following types of cattle on hand across your grassfed beef cattle herd? Base: All respondents, n = 3,223

30,000,000	26,411,066	26,128,840		
25,000,000				
20,000,000				
15,000,000				
10,000,000				
5,000,000				
0 —	Nov-23	Apr-24	Nov-24	Apr-25



producer intentions for their on-farm grassfed adult beef cattle herd

Producer intentions on herd size over the next 12 months

Q8. Do you intend to increase, keep the same or reduce your beef cattle herd over the next 12 months? * Base: All respondents, n = 3,223



Producers provided an indication of their intention for their on-farm grassfed adult beef cattle herd over the next 12 months.

Among the producers responding to the April 2024 survey, just under one in three (28%) reported they would be increasing their herd, with 19% indicating some level of downsizing of their herd.

This provides a useful producer sentiment, with the following analysis exploring the impact of this stated intention on the forecast herd (remembering producers have different herd sizes).

	-			St	ate					Levy	Band		
		NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:		1,074	899	145	114	721	239	1,949	489	371	268	81	65
Intend to increase		30%	32%	19%	26%	26%	14%	29%	22%	26%	31%	36%	17%
Intend to keep the same		53%	54%	53%	46%	56%	50%	51%	60%	60%	54%	55%	71%
Intend to reduce		17%	14%	28%	28%	18%	35%	20%	18%	15%	15%	9%	12%



Southern Australia

Q8. Do you intend to increase, keep the same or reduce your beef cattle herd over the next 12 months? $\ensuremath{^*}$

Base: All respondents categorised or self-identified as a Southern Australian producer, n = 2,679



Q8. Do you intend to increase, keep the same or reduce your beef cattle herd over the next 12 months? * Base: All respondents categorised or self-identified as a Northern Australian producer, n = 544

29% Intend to increase my beef cattle herd 28% Intend to increase my beef cattle herd Intend to keep my beef cattle herd size the same 55% Intend to keep my beef cattle herd size the same 53% Intend to reduce my beef cattle herd Intend to reduce my beef cattle herd Nov-23: 38% 15% 47% Nov-23: 38% 14% 48%

> Producers' intention for their on-farm grassfed adult beef cattle herd over the next 12 months was consistent between Southern and Northern producers.

> While there are mixed responses (some increasing, some decreasing), around one in two (around 50%+) are indicating no change.

Effect of 2023/24 summer rainfall on Southern producer intentions

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28% of Southern producers reported they intend to increase their beef cattle herd over the next 12 months

Q9. How influential has the 2023/24 summer rainfall been on your intention to increase your beef cattle herd over the next 12 months? *

Base: All respondents categorised or self-identified as a Southern Australian producer AND intend to increase their beef cattle herd over the next 12 months, n = 732



Producers in NSW and QLD were more likely than producers from other states to indicate that the summer rainfall has been an influence on their intention to increase their herd size.

This result reflects an increase in summer rainfall in the northern areas of the southern production systems.

19% of Southern producers reported they intend to **reduce** their beef cattle herd over the next 12 months

Q9. How influential has the 2023/24 summer rainfall been on your intention to **reduce** your beef cattle herd over the next 12 months? *

Base: All respondents categorised or self-identified as a Southern Australian producer AND intend to reduce their beef cattle herd over the next 12 months, n = 506



By contrast, producers in SA, Victoria and WA were more likely than producers from other states to indicate that the summer rainfall received influenced their intention to decrease their herd size.

Effect of 2023/24 wet season on Northern producer intentions

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29% of Northern producers reported they intend to increase their beef cattle herd over the next 12 months

Q9. How influential has the 2023/24 wet season been on your intention to **increase** your beef cattle herd over the next 12 months? *

Base: All respondents categorised or self-identified as a Northern Australian producer AND intend to increase their beef cattle herd over the next 12 months, n = 159



Q9. How influential has the 2023/24 wet season been on your intention to reduce your beef cattle herd over the next 12 months? *

Base: All respondents categorised or self-identified as a Northern Australian producer AND intend to reduce their beef cattle herd over the next 12 months, n = 85









Producer intentions on changing their herd profile

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26%

23%

23%

17%

15%



61% reported they had no intention to change the profile of their herd in 2024.

* New question to the April 2024 wave. ⁺ Not asked to Southern producers.

Beef Producers Intentions Survey - April 2024

Producer intentions on changing their herd profile

Southern Australia

Q10. Are you intending on changing the profile of your herd in 2024? * Base: All respondents categorised or self-identified as a Southern Australian producer, n = 2,679

39% of Southern producers indicated they intend to change the profile of their herd in 2024:



61% reported they had no intention to change the profile of their herd in 2024.

Northern Australia

Q10. Are you intending on changing the profile of your herd in 2024?* Base: All respondents categorised or self-identified as a Northern Australian producer, n = 544

41% of Northern producers indicated they intend to change the profile of their herd in 2024:



59% reported they had no intention to change the profile of their herd in 2024.

Producer intentions on changing their herd profile

Southern Australia

39% of Southern producers indicated they intend to change the profile of their herd in 2024:

Q11. What factors are influencing your intentions for changing the profile of your herd in 2024?*

Base: All respondents categorised or self-identified as a Southern Australian producer AND who intend to change the profile of their herd in 2024, n = 1,036





41% of Northern producers indicated they intend to change the profile of their herd in 2024:

Q11. What factors are influencing your intentions for changing the profile of your herd in 2024?*

Base: All respondents categorised or self-identified as a Northern Australian producer AND who intend to change the profile of their herd in 2024, n = 217





an overview of producer's breeding program

Spring breeding program – % of producers

Q3. (Southern Australia only) Do you join cows and heifers to deliver calves in spring, autumn, or both seasons? Base: All respondents categorised or self-identified as a Southern Australian producer AND reported being a cow/calf producer, n = 2,378

77% of Southern producers indicated they join cows and heifers to deliver calves in spring



The following pages asked these producers about their spring breeding program.

			St	ate					Levy	Band		
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	972	355	132	94	608	204	1,483	378	283	174	42	18
% producing for spring	90%	96%	49%	79%	66%	23%	78%	73%	76%	81%	80%	94%
Both spring and autumn calving	48%	47%	33%	29%	36%	14%	43%	37%	33%	35%	23%	25%
Spring calving only	43%	50%	15%	51%	30%	10%	35%	37%	44%	46%	57%	68%

Spring breeding program – spring calf branding percentage

Q13. (Southern Australia only) What was your branding percentage for the spring calves that were delivered? *

Base: All respondents categorised or self-identified as a Southern Australian producer AND who reported being a cow / calf producer AND reported typically joining cows/heifers to deliver calves in spring, n = 1,826



			St	ate					Levy	Band		
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	880	343	66	76	401	48	1,147	273	216	141	32	17
% specifying a branding percentage	61%	76%	57%	56%	53%	55%	57%	70%	74%	75%	86%	87%
Of those who specified	i I						i I					
Mean branding percentage	83%	88%	91%	84%	83%	67%	82%	88%	91%	88%	86%	93%

Spring breeding program – age of spring calf weaning

Q14. (Southern Australia only) At what age did you (or will you) wean most of your spring calves? $\ensuremath{^*}$

Base: All respondents categorised or self-identified as a Southern Australian producer AND who reported being a cow / calf producer AND reported typically joining cows/heifers to deliver calves in spring, n = 1,826

Provided an answer (in weeks or months)	91%
Not sure	9%
Of those who provided an answer	
Mean age (in months)	7.25

Distribution of reported mean weaning age (in months)



			St	ate			1		Levy	Band		
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	880	343	66	76	401	48	1,147	273	216	141	32	17
% provided an answer	91%	91%	89%	97%	89%	85%	89%	95%	93%	96%	100%	100%
Of those who provided an answer	i						i					
Mean age (in months)	7.23	6.95	6.81	7.09	7.59	7.40	7.21	7.40	7.52	7.23	6.65	6.32

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Autumn breeding program – % of producers

Q3. (Southern Australia only) Do you join cows and heifers to deliver calves in spring, autumn, or both seasons? Base: All respondents categorised or self-identified as a Southern Australian producer AND reported being a cow/calf producer, n = 2,378

63% of Southern producers indicated they join cows and heifers to deliver calves in autumn



The following pages asked these producers about their autumn breeding program.



		State					Levy Band						
		NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:		972	355	132	94	608	204	1,483	378	283	174	42	18
% producing for autumn		57%	50%	85%	49%	70%	90%	65%	63%	56%	54%	43%	32%
	- j							 					
Both spring and autumn calving		48%	47%	33%	29%	36%	14%	43%	37%	33%	35%	23%	25%
Autumn calving only		10%	4%	51%	21%	34%	77%	22%	27%	24%	19%	20%	6%

Autumn breeding program – breeding herd joining and calving rates

Page 35

Q14. (Southern Australia only) For this year's autumn breeding program, thinking about your breeding herd, how many cows / heifers were joined for your autumn breeding? * Base: All respondents categorised or self-identified as a Southern Australian producer AND who reported being a cow / calf producer AND reported typically joining cows/heifers to deliver calves in autumn, n = 1,488 Q14. (Southern Australia only) How many autumn calves have been delivered or are expected from the autumn breeding program across the following two time points? * Base: All respondents categorised or self-identified as a Southern Australian producer AND who reported being a cow / calf producer AND joined their breeding herd for autumn breeding, n = 1,405

Breeding herd on hand at 31 March 2024 (Autumn breeders only)	5,360,661		
Breeding herd joined	3,260,597	 Breeding herd joined	3,260,597
Breeding herd join rate	61%	Calves delivered or expected	2,582,345
		Actual calves born to 31 March 2024	1,297,076
		Actual and expected calves to be born between 1 April – 30 June 2024	1,285,269
		Breeding herd calving rate	79%

	State						Levy Band						
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)	
Base:	547	171	112	44	424	186	970	241	160	92	20	5	
Breeding herd at 31 October 2023	1,944,504	633,361	616,717	107,459	1,414,742	639,902	2,150,514	888,873	922,331	765,001	380,624	253,318	
Breeding herd joined	906,554	371,678	510,031	61,103	912,927	495,768	1,297,917	519,862	598,796	443,931	265,956	134,135	
Breeding herd join rate	47%	59%	83%	57%	65%	77%	60%	58%	65%	58%	70%	53%	
	l l						1						
Breeding herd joined	906,554	371,678	510,031	61,103	912,927	495,768	1,297,917	519,862	598,796	443,931	265,956	134,135	
Calves delivered or expected	703,532	280,895	310,287	52,914	795,069	437,347	894,549	445,924	489,161	411,537	223,804	117,371	
Breeding herd calving rate	78%	76%	61%	87%	87%	88%	69%	86%	82%	93%	84%	88%	

* New question to the April 2024 wave. Note on analysis: Where producers provided data that resulted in a joining rate / calving rate of over 100%, the mean rate for their State and Levy Band was used instead.

Autumn breeding program – autumn calf branding percentage

Page 36

Q17. (Southern Australia only) Of the autumn calves that have been delivered so far, what is your current branding percentage? *

Base: All respondents categorised or self-identified as a Southern Australian producer AND who reported being a cow / calf producer AND reported typically joining cows/heifers to deliver calves in autumn, n = 1,488



	State						Levy Band						
	NSV	V QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)	
Base:	547	' 171	112	44	424	186	970	241	160	92	20	5	
% specifying a branding percentage	31%	36%	36%	26%	34%	40%	32%	46%	29%	36%	47%	37%	
Of those who specified	i i												
Mean branding percentage	76%	5 73%	77%	84%	69%	71%	70%	78%	84%	81%	87%	97%	
Breeding program – producer turn off weights

Q18. As a [PRODUCER TYPE AT Q2], what weights will you turn cattle off at? * Base: All respondents who reported being a cow / calf producer, n = 2,860

It is important to note that these estimates of turn-off weights are produced from cow/calf producers only. *Turn-off weight estimates for backgrounders / traders / growers / fatteners are provided separately.*

	% provided a turn-off N weight estimate	lean turn-off weight (in kg)		Southern Australia	Northern Australia
Weaner producer (n = 1,763)	72%	307 kg	Weaner producer	312 kg (n = 1,512)	269 kg (n = 251)
Feeder steer producer (n = 645)	81%	406 kg	Feeder steer producer	408 kg (n = 530)	400 kg (n = 115)
Grassfed bullock producer (n = 272)	79%	552 kg	Grassfed bullock producer	557 kg (n = 199)	533 kg (n = 73)
Live export producer (n = 35)	78%	360 kg	Live export producer	362 kg (n = 9)	360 kg (n = 26)
Other type of producer (n = 145)	78%	424 kg	Other type of producer	420 kg (n = 128)	470 kg (n = 17)



Breeding program – producer turn off weights

Q19. Is this expected weight higher or lower than last year? * Base: All respondents who reported being a cow / calf producer AND reported their turn-off weight, n = 2,198



3% indicated they were "not sure" if this expected weight was higher or lower than last year.

	Southern Australia (n = 1,824)	Northern Australia (n = 374)
Higher than last year	18%	21%
The same as last year	66%	69%
Lower than last year	12%	8%

3%

Not sure 3%

Turn-off weight comparison to last year by producer type

	Higher than last year	The same as last year	Lower than last year	Not sure
Weaner producer (n = 1,298)	19%	65%	13%	3%
Feeder steer producer (n = 535)	20%	68%	8%	3%
Grassfed bullock producer (n = 221)	12%	76%	10%	1%
Live export producer (n = 29)	17%	68%	16%	0%
Other type of producer (n = 115)	18%	67%	14%	2%

2024 turn-off weight against comparison to last year by producer type

	Higher than last year	The same as last year	Lower than last year	Not sure
Weaner producer (n = 1,298)	303 kg	309 kg	303 kg	303 kg
Feeder steer producer (n = 535)	409 kg	411 kg	385 kg	349 kg
Grassfed bullock producer (n = 221)	526 kg	560 kg	526 kg	503 kg
Live export producer (n = 29)	437 kg	344 kg	351 kg	n/a
Other type of producer (n = 115)	402 kg	430 kg	407 kg	533 kg

Decisions for cattle that do not reach target weight when expected

Q22. If there are cattle that do not reach the target weight when you expect them to, what will you do with these cattle? Please select all that apply.* Base: All respondents, n = 3,223



	Weaner producer (n = 1,763)	Feeder steer producer (n = 645)	Grassfed bullock producer (n = 272)	Live export producer (n = 35)	Other type of producer (n = 145)
Continue fattening until they hit target weight	44%	59%	58%	60%	49%
Sell below weight	46%	33%	31%	40%	26%
Keep female cattle as heifers	13%	14%	10%	17%	9%
Sell to another breeding or backgrounding / growing / fattening business	9%	12%	8%	17%	13%
Cull underweight cattle	6%	7%	10%	7%	6%
Other	3%	4%	5%	3%	19%
Not sure	5%	4%	5%	8%	6%





an overview of producer's sales program

Producer sales – actual and expected volumes

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Q23, Q25, Q27, Q29, Q30. Earlier, you described yourself as a [PRODUCER TYPE AT Q2]. How many sales have already been made and how many do you expect to sell through the following time periods?

Base: All respondents who reported being a cow / calf producer, n = 2,860

It is important to note that these estimates of turn-off weights are produced from cow/calf producers only. Turn-off weight estimates for backgrounders / traders / growers / fatteners are provided separately.

Total actual and expected sales

4,583,653



		State					Levy Band					
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	972	800	132	94	608	224	1,717	438	341	239	71	54
Total actual and expected sales	1,115,610	1,907,776	183,170	245,104	714,694	315,859	1,177,208	537,849	568,854	683,620	536,523	1,079,598
% of total sales	i						i I					
Actual sales 1 Jan – 31 Mar	39%	33%	56%	66%	61%	58%	37%	37%	46%	48%	50%	45%
Expected sales 1 Apr – 30 Jun	61%	67%	44%	34%	39%	42%	63%	63%	54%	52%	50%	55%

Estimate of producer sales from July 2023 to June 2024

An aggregation of results across the Nov-23 and Apr-24 BPIS surveys.

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The results shown in the chart below are taken from the sales data collected in the November 2023 and April 2024 BPIS surveys. The reported actual and forecast sales reported by producers in the Nov-23 and Apr-24 BPIS are shown below. The result illustrate the stronger level of sales forecast in Nov-23 BPIS for the first two quarters of 2024. The Apr-24 BPIS data suggests a more conservative sales program in 2024.

The retention of stock is likely a result of several factors and forces influencing producers' sales decisions.



Producer sales – actual and expected volumes

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Southern Australia

Q23, Q25, Q27, Q29, Q30. Earlier, you described yourself as a [PRODUCER TYPE AT Q2]. How many sales have already been made and how many do you expect to sell through the following time periods?

Base: All respondents categorised or self-identified as a Southern Australian producer AND who reported being a cow / calf producer, n = 2,378

Northern Australia

Q23, Q25, Q27, Q29, Q30. Earlier, you described yourself as a [PRODUCER TYPE AT Q2]. How many sales have already been made and how many do you expect to sell through the following time periods?

Base: All respondents categorised or self-identified as a Northern Australian producer AND who reported being a cow / calf producer, n = 482



Producer sales – sales channels

Q24, Q26, Q28, Q29, Q31. Of the expected sales to be made in the first half of 2024, what proportion will be made through the following sales channels?

Base: All respondents who reported being a cow / calf producer AND reported sales (actual and/or expected) in the first half of 2024, n = 2,371



	Southern Australia (n = 1,955)	Northern Australia (n = 416)
Saleyards	71%	61%
Direct to processor	8%	10%
Direct to feedlot	5%	9%
Online	6%	3%
Paddock to paddock	4%	0%
Live export markets	<1%	6%
Within our own or another vertically integrated company	1%	2%
Contracted arrangement for feedlot / processor / vertically integrated company	1%	0%
Other	4%	9%

Producers responding to the April 2024 BPIS have indicated saleyard auctions will continue to be the primary channel for beef cattle sales.

The results are largely consistent across Northern and Southern producers.

Producer sales – sales channels

Q24, Q26, Q28, Q29, Q31. Of the expected sales to be made in the first half of 2024, what proportion will be made through the following sales channels?

Base: All respondents who reported being a cow / calf producer AND reported sales (actual and/or expected) in the first half of 2024, n = 2,371

		State					Levy Band					
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	842	689	104	82	468	159	1,379	378	298	205	63	48
Producer-reported average % of sales through channel							1 					
Saleyards	75%	67%	62%	35%	74%	59%	78%	68%	52%	39%	21%	4%
Direct to processor	6%	9%	10%	25%	10%	9%	7%	8%	13%	15%	24%	16%
Direct to feedlot	6%	8%	5%	6%	3%	5%	2%	6%	16%	20%	31%	34%
Online	6%	4%	7%	10%	5%	4%	4%	8%	9%	13%	4%	6%
Paddock to paddock	2%	3%	6%	11%	3%	6%	3%	4%	4%	2%	1%	5%
Live export markets	<1%	1%	0%	0%	<1%	8%	1%	1%	1%	3%	4%	15%
Within our own or another vertically integrated company	<1%	1%	2%	3%	<1%	2%	1%	1%	1%	1%	6%	5%
Contracted arrangement for feedlot / processor / vertically integrated company	1%	<1%	1%	<1%	1%	1%	<1%	1%	1%	1%	1%	0%
Other	3%	6%	6%	10%	3%	6%	4%	3%	3%	6%	8%	14%



attachments

Beef Producers Intentions Survey – Southern Producers

April 2024

We spoke to 2,679 Southern Australian producers about their industry sentiment and the profile and intentions for their on-farm grassfed adult beef cattle herd...



Beef Producers Intentions Survey – Northern Producers

April 2024

We spoke to 544 Northern Australian producers about their industry sentiment and the profile and intentions for their on-farm grassfed adult beef cattle herd...



Key results by state

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	Overall (n = 3,223)	NSW (n = 1,074)	QLD (n = 899)	SA (n = 145)	TAS (n = 114)	VIC (n = 721)	WA (n = 239)
Sentiment of the Beef Cattle Industry							
Nett Sentiment	+34	+42	+44	+18	+7	+35	-25
% positive	50%	55%	55%	36%	39%	49%	20%
% negative	16%	13%	11%	18%	32%	14%	46%
Beef Cattle Herd Profile (in millions)							
Estimate of on-farm grassfed adult beef cattle herd on hand at 31 March 2024	26.13	5.27	12.66	0.98	1.30	3.40	1.74
Breeding cows	13.78	2.90	6.48	0.55	0.64	1.76	1.07
Heifers	3.86	0.78	1.85	0.15	0.23	0.51	0.24
Steers (under 2)	6.44	1.34	3.05	0.24	0.38	0.94	0.32
Bulls (12m+)	0.63	0.13	0.31	0.02	0.02	0.08	0.05
Castrated males (2+)	1.42	0.12	0.97	0.02	0.02	0.12	0.06
Actual / Expected Sales from Cow / Calf Producers							
Actual sales already made from 1 January to 31 March 2024	43%	39%	33%	56%	66%	61%	58%
Expected sales to be made between 1 April to 30 June 2024	57%	61%	67%	44%	34%	39%	42%
Beef Cattle Herd Intentions							
InIntend to increase my beef cattle herd	28%	30%	32%	19%	26%	26%	14%
Intend to keep my beef cattle herd size the same	54%	53%	54%	53%	46%	56%	50%
Intend to reduce my beef cattle herd	19%	17%	14%	28%	28%	18%	35%
Breeding Program Turn-off Weights (in kg, bases vary by producer)		 					
Weaner producer	307	297	270	352	300	339	337
Feeder steer producer	406	401	402	392	425	432	382
Grassfed bullock producer	552	553	532	561	582	579	487
Live export producer	360	-	491	-	-	450	314
Other type of producer	424	367	409	425	505	475	453

Description of business and end market

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Q1. Which of the following would describe your beef cattle business? Please select all that apply. Base: All respondents, n = 3,223

Nov-23 Breeder - cow / calf producer 88% 87% Backgrounder / trader / grower / fattener 21% 24% 5% Stud producer 4% Feedlot business 1% 1% Other 1% 1%

Breeder ONLY	79%	76%
Backgrounder / trader / grower / fattener ONLY	12%	13%
Both a breeder AND a backgrounder / trader / grower / fattener	9%	11%

Q2. You said you were a breeder or cow/calf producer. What do you consider best describes your cattle production focus? Base: All respondents who reported being a cow / calf producer, n = 2,860

Nov-23 Weaner producer 63% 61% Feeder steer producer 21% 25% Grassfed bullock producer 9% 8% Live export producer 1% 1% 5% 5% Other

(Southern) Seasonal joining

Q3. (Southern Australia only) Do you join cows and heifers to deliver calves in spring, autumn, or both seasons?

Base: All respondents categorised or self-identified as a Southern Australian producer AND reported being a cow/calf producer, n = 2,378



		State						Levy Band				
	NSW	QLD	SA	TAS	VIC	WA	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category 6+ (highest bands)
Base:	972	355	132	94	608	204	1,483	378	283	174	42	18
Both spring and autumn calving	48%	47%	33%	29%	36%	14%	43%	37%	33%	35%	23%	25%
Spring calving only	43%	50%	15%	51%	30%	10%	35%	37%	44%	46%	57%	68%
Autumn calving only	10%	4%	51%	21%	34%	77%	22%	27%	24%	19%	20%	6%

(Northern) Domestic or live export end markets

Q3. (Northern Australia only) Producers have different end markets for their livestock. Which of the following describes your end market as a breeder/producer of cattle? Base: All respondents categorised or self-identified as a Northern Australian producer AND reported being a cow/calf producer, n = 482



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Cattle program – B/T/G/F turn off weights

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Q20. As a backgrounder / trader / grower / fattener, what weights will you turn cattle off at? * Base: All respondents who reported being a backgrounder / trader / grower / fattener, n = 709

	% provided a turn-off weight estimate	Mean turn-off weight (in kg)		Southern Australia	Northern Australia
Backgrounder / trader grower / fattener (n = 709)	81%	502 kg	Backgrounder / trader / grower / fattener	505 kg (n = 503)	495 kg (n = 206)

Q21. Is this expected weight higher or lower than last year? *

Base: All respondents who reported being a backgrounder / trader / grower / fattener AND reported their turn-off weight, n = 581



1% indicated they were "not sure" if this expected weight was higher or lower than last year.

2024 turn-off weight against comparison to last year

	Higher than last year	The same as last year	Lower than last year	Not sure
Backgrounder / trader / grower / fattener (n = 581)	493 kg	503 kg	512 kg	509 kg

B/T/G/F sales – bought in, actual and expected volumes

Q32. Earlier, you described yourself as a backgrounder / trader / grower / fattener. How many cattle were bought in for trading, growing out or fattening before 31 March 2024?

Base: All respondents who reported being a backgrounder / trader / grower / fattener, n = 709



Estimate of cattle bought in for trading before 31 March 2024: 2,268,232

Q33. Of the current cattle you have on hand either trading, backgrounding, for growing out or fattening, how many sales have already been made been made and how many do you expect to sell through the following time periods? Base: All respondents who reported being a backgrounder / trader / grower / fattener, n = 709

Total actual and expected sales



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B/T/G/F sales – sales channels

Q34. Of the expected sales to be made in the first half of 2024, what proportion will be made through the following sales channels?

Base: All respondents who reported being a backgrounder / trader / grower / fattener AND reported sales (actual and/or expected) in the first half of 2024, n = 531



	Southern Australia (n = 378)	Northern Australia (n = 153)
Saleyards	43%	31%
Direct to processor	25%	48%
Direct to feedlot	14%	13%
Over the hooks	6%	0%
Contracted arrangement for feet processor / vertically integrated	50%	0%
Online	4%	1%
Live export markets	0%	4%
Within our own or another vertig integrated company	cally 0%	1%
Other	2%	1%

For B/T/G/F producers, saleyard auctions and direct to either processors or feedlots will be the primary channels for beef cattle sales this year.

Northern producers (among B/T/G/F) have reported a higher disposition to use direct to processor as the most often reported channel.

Research design

Survey Program	The Beef Producers Intentions Survey, undertaken by MLA, is used to help industry determine on-farm grassfed adult beef cattle production forecasts and to understand the breed composition of the herd on a national, state and regional basis. It is one of the inputs into the MLA beef industry forecasting models.
Methodology	The April 2024 survey used a mixed-method approach. Producers with email contact details were provided with the opportunity to respond to an online survey invitation. After 3 reminders, phone surveys were used as the method to 'top up' the final sample of respondents.
Sample lists	Approval was sought and received to use the Levy Payer Register as the sample. This data was cleaned for any duplicates by email and phone number before use in the research.
Questionnaire	 A 15-minute questionnaire was used to collected the required information. The survey questionnaire covered, amongst others, the following topic areas: Producer sentiment about the next 12 months of the beef cattle industry A profile of the on-farm grassfed adult beef cattle herd Producer intentions for their on-farm grassfed adult beef cattle herd An overview of producer's breeding program An overview of producer's sales program

Sample size A total of n = 3,223 responses were provided by producers as follows:

	I I Overall I	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
# of surveys	n = 3,223	n = 13	n = 1,074	n = 18	n = 899	n = 145	n = 114	n = 721	n = 239

Timing The interviewing was undertaken between 3rd April 2024 – 22nd May 2024.

Weighting The survey results were weighted. A description of the weighting process used for the April 2024 Beef Producers Intentions Survey follows next.

Weighting of survey data

Survey data is often weighted to ensure estimates provide a representative match of the population being estimated and the estimates deliver statistical reliable measures.

For the Beef Producers Intentions Survey, data has been weighted to ensure the sample provides a strong representation of the population of producers as possible. For this survey, it was considered important to weight the survey data to ensure we have:

- Coverage across the various regions as producers will have different operating conditions. For our purposes, a region is a state – so we need to weight so that our final sample is representative of the distribution of producers across states.
- o Coverage across farm businesses of different sizes larger businesses have larger herds so ensuring we have an appropriate mix of small, medium, large and very large producers is vital for the estimation process. As there is no up-to-date record of the herd sizes of producers nationally, we have used the Levy Band the producer is within (11 categories) as a proxy to this. For higher levy bands (categories 6 and above), a national representation was used as opposed to a state representation given the smaller number of producers in these levy bands.

There may be other variables that help describe the possible differences across producers, but these two variables (state and levy band) will more than likely account for the likely differences that exist in the population of all producers.

For this survey, the Levy Payer Register was used as the population structure that guided the weighting approach. Data at a state and levy band segment from the register was approved for use - this data is summarised opposite. The weighting approach involved using the estimate of the total number of agricultural businesses with grassfed beef cattle from the Levy Payer Register as the population estimates (after cleaning for possible duplicate businesses).

This final weighting matrix was then used to weight the April 2024 Beef Producers Intentions survey data.

2		OVERALL	Category 1 (lowest band)	Category 2	Category 3	Category 4	Category 5	Category (highest ba
S	AUSTRALIA	77,407	52,799	10,933	6,783	4,563	1,413	915
E	NSW	26,677	18,791	3,648	2,218	1,444	392	184
	QLD	20,072	13,267	2,502	1,687	1,546	619	450
t	VIC	19,513	13,553	3,114	1,762	853	158	73
f	WA	4,331	2,687	693	458	320	86	88
	SA	3,742	2,542	508	360	213	70	50
2	TAS	2,660	1,739	416	262	162	57	24
-	NT	247	92	33	27	21	29	46

19

9

5

2

ACT

165

130

Estimated number of agricultural businesses with grassfed beef cattle (Levy Payer Register)

st bands

1

Confidence intervals for survey estimates

Reliability of the estimates

The estimates in this report are based on information obtained from a sample survey. Any data collection may encounter factors, known as non-sampling error, which can impact on the reliability of the resulting statistics. In addition, the reliability of estimates based on sample surveys are also subject to sampling variability. That is, the estimates may differ from those that would have been produced had all persons in the population been included in the survey.

Non-sampling error

Non-sampling error may occur in any collection, whether it is based on a sample or a full count such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers and errors in coding and processing data. Every effort is made to reduce non-sampling error by careful design of survey questionnaires and quality control procedures at all stages of data processing.

Sampling error

One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of persons was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all persons had been surveyed, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

Calculation of confidence interval

If 50% of all the people in a population of 20,000 people drink coffee in the morning, and if you were repeat the survey of 377 people ("Did you drink coffee this morning?") many times, then 95% of the time, your survey would find that between 45% and 55% of the people in your sample answered "Yes".

The remaining 5% of the time, or for 1 in 20 survey questions, you would expect the survey response to more than the margin of error away from the true answer.

When you survey a sample of the population, you don't know that you've found the correct answer, but you do know that there's a 95% chance that you're within the margin of error of the correct answer.

In terms of the numbers selected above, the margin of error MoE is given by:

$$MoE = z * \sqrt{rac{\hat{p}(1-\hat{p})}{n}}$$

where *n* is the sample size, \hat{p} is the fraction of responses that you are interested in, and *z* is the <u>critical value</u> for the 95% confidence level (in this case, 1.96).

This calculation is based on the <u>Normal distribution</u> and assumes you have more than about 30 samples.

	of Error	Sample Size
sample	a given size and estimate	3,223 (total surveys completed)
	10%	± 1.04%
	20%	± 1.38%
	30%	± 1.58%
imate	40%	± 1.69%
Survey Estimate	50%	± 1.73%
Surve	60%	± 1.69%
	70%	± 1.58%
	80%	± 1.38%
	90%	± 1.04%

Note. Margin of Errors are provided at the 95% confidence level on the assumption of a large population size (non-finite) and normally distributed. Results labelled "n/a" are due to the assumption of the normal distribution not being upheld ($n\hat{p} < 10 \text{ or } n(1-\hat{p}) < 10$).



Beef Producer Intentions Survey [BPIS: April 2024]



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