Sheep Producers Intentions Survey

MAY 2023

June 2023

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# About the research

The survey, undertaken by MLA and AWI, is used to help industry determine wool and lamb production forecasts and to understand the breed composition of the Australian flock on a national, state and regional basis. It is used by processors for budgeting purposes and allows import markets to ascertain short-term supply estimates.

The research has three primary objectives, namely to:

✓ Measure and report on flock population, demographics, sheepmeat and wool 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 MAY 2023 survey.

## The May 2023 survey

Feedback was sought from producers over the period 27th April – 23rd May 2023. Producers were initially invited to complete an online survey with the final sample complemented with a number of phone interviews.
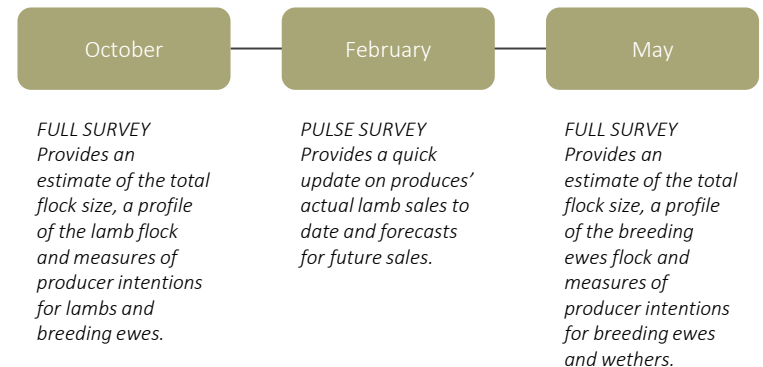
A total of 1,958 producers from across Australia respond to the survey invitation. The feedback was then weighted, using the latest available ABS data, to produce industry estimates.

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

*Please note that the May 2023, similar to the October 2022 and February 2023 surveys, was a significant departure from previous surveys in terms of design and questions asked. Care should be taken in comparing the results from this survey to previous surveys.*

### An overview of the research design

Three separate but integrated surveys will be conducted across the calendar year. Each survey will have a specific focus and purpose and provide the required flock and producer intention estimates required.

| October | February | May |
|---------|----------|-----|

*FULL SURVEY Provides an estimate of the total flock size, a profile of the lamb flock and measures of producer intentions for lambs and breeding ewes.*

*PULSE SURVEY Provides a quick update on produces' actual lamb sales to date and forecasts for future sales.*

*FULL SURVEY Provides an estimate of the total flock size, a profile of the breeding ewes flock and measures of producer intentions for breeding ewes and wethers.*

More detail on the research design is included in the Attachments to this report.

# State of play: an overview of the industry analysis

**State of play...**

The Australian wool and sheepmeat sectors remain highly dynamic sectors. There continues to be evidence of significant pressures on producers including increasing on-farm costs (input costs), challenges around workforce shortages as well as supply chain and market pressures (domestic and global).

There is increasing discussion of a drier outlook (possibly El Nino). It is likely businesses across the supply chain will be considering this impact into their planning. Domestically, rising interest rates, inflation and movements in consumer demand are adding further complexity for producers planning and intentions.

The content opposite provides a brief overview of the wool and sheepmeat sectors by the agribusiness units within Rabobank and ANZ Agribusiness.
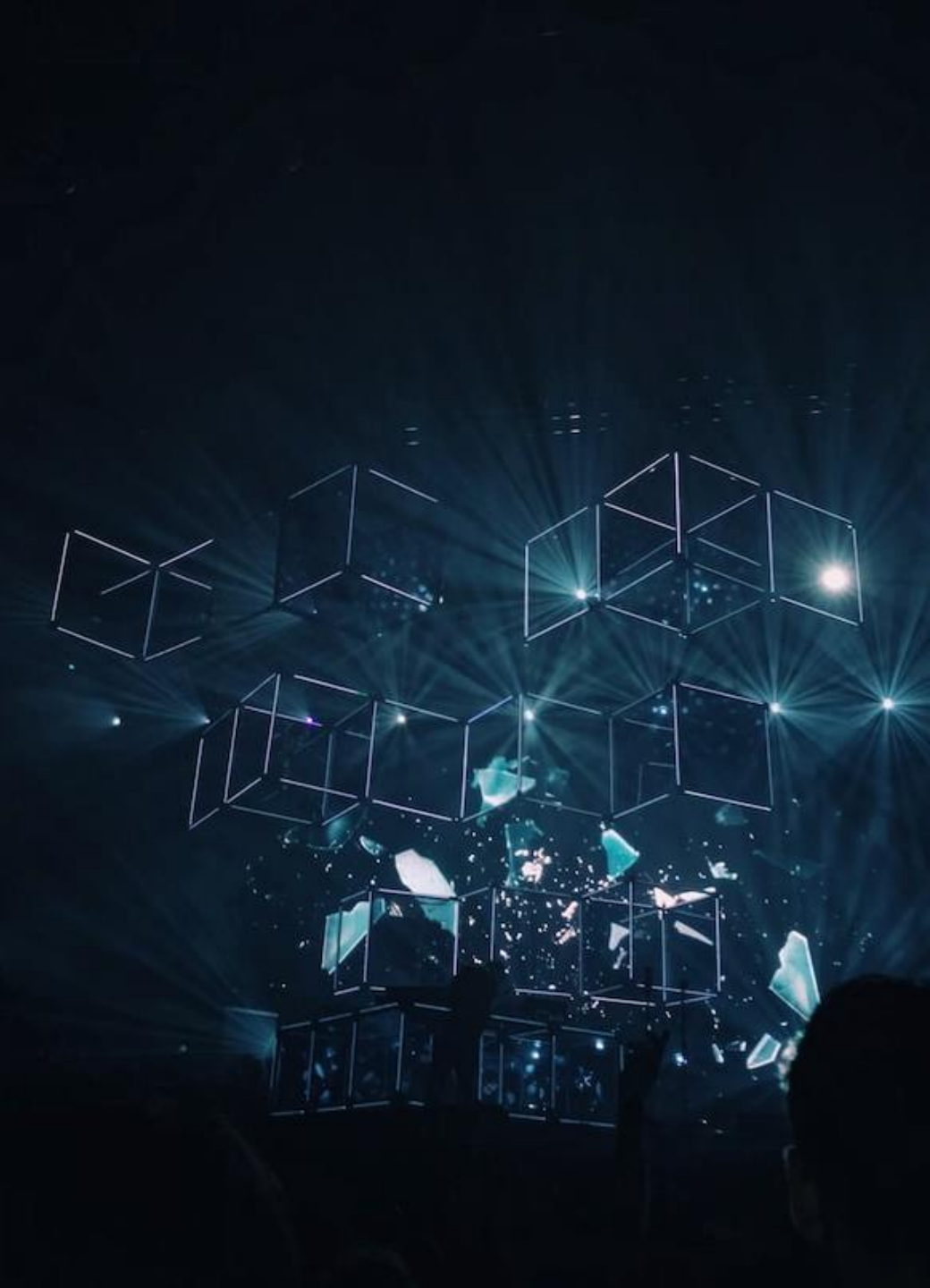
The discussion provides a useful context for interpreting the results in the May 2023 Sheep Producers Intentions Survey (SPIS).

RABOBANK Commentary

✓ Sheepmeat: Not many bright spots for the Sheepmeat market. Increasing volumes, weaker producer demand, weaker consumer markets and increasing global competition all create headwinds for Australian lamb and sheep prices. Slaughter numbers are up in the last few weeks.

✓ Wool: Wool prices dipped throughout April before a late rally to close out the month. Exports softened after a strong start to the year, but positive market demands trends from key markets continue to provide promise.

ANZ Agribusiness Commentary:

✓ Pressure continues to mount on lamb and mutton prices as heavy supply comes through saleyards and processing plants.
✓ Quality is still attracting a premium with heavy discounts for lighter and restocker lambs.
✓ Throughput of both sheep and lambs through saleyards and over the hooks is trending considerably higher in 2023.
✓ The typical upside seen in prices through the winter months is not looking likely this year due to continued high supply.

✓ Wool prices continue to trade within a relatively narrow band, although weakened overall through late Autumn.
✓ Prices remain significantly back year on year for many micron categories.
✓ Weaker buyer demand is underlying the price pressure however the quality finer wool types are receiving better price support.
✓ Volumes processed through auction remain steady year on year and forecast gross wool production is also stable – indicating a stabilising national flock and wool cut.

Source of Rabobank commentary: Rabobank Australia Agribusiness Monthly – May 2023
Source of ANZ Agribusiness commentary: ANZ Agri InFocus, Commodity Insights, Winter 2023

Sheep Producers Intentions Survey – May 2023 – Main Report

# Observations and insights

# Sheep Producers Intentions Survey

## May 2023

We spoke to 1,958 producers about their industry sentiment and the profile and intentions for their flock...

## Sentiment

Nett Sentiment
(% positive - % negative)

**+13**
Wool industry

Up 1 point
on Oct-22

**+27**
Sheepmeat industry

Down 40 points
on Oct-22

## Breeding Ewe Flock Profile

**46.14 million**  Estimate of total breeding ewes
(66% of total flock size)

Dominant breeds on hand in the breeding ewe flock estimate:

| **64%** Merino | **14%** First cross | **12%** Prime lamb |
|---|---|---|

## Wether Flock Profile

**9.20 million**  Estimate of total wethers
(13% of total flock size)

Dominant breeds on hand in the wether flock estimate:

| **87%** Merino | **4%** First cross | **3%** Prime lamb |
|---|---|---|

## Breeding Ewe Flock Intentions

46.14 million → 43.48 million

Reported breeding ewe flock size for 2023 → Forecast breeding ewe flock size for 2024

**- 6%**  Forecasted change in total breeding ewe flock

## Wether Flock Intentions

9.20 million → 7,92 million

Reported wether flock size for 2023 → Forecast wether flock size for 2024

**- 14%**  Forecasted change in total wether flock

# Observations and insights

While the purpose of the research did not include the presentation of an interpretation of the survey results, we provide some initial observations and insights on the feedback and estimates from the May 2023 SPIS.

**Producer sentiment**

The results indicate that producers remain cautiously optimistic about the future of the wool sector (nett sentiment: +13, up 1 point since October 2022).

Given the pressures described earlier, it was not surprising to see a muted outlook for the wool sector.

From the analysis, it is evident that the very small and very large businesses are the producers exhibiting some degree of optimism, with all other producers reporting a much more conservative outlook for wool. There is some variation across states, with WA reporting the lowest sentiment score (+1).

Producers' buoyancy in October 2022 about the future of the sheepmeat sector has pulled back significantly (nett sentiment: +27, down 40 points). While most states remain positive, WA sentiment has plunged, down now to -48 (more producers negative about the future of the sheepmeat sector). The live export decisions and upcoming weather and seasonal climate patterns are obvious influences on this more negative outlook for WA producers.

Producers in WA are having a clear dampening impact on the national results. The analysis opposite shows the impact from these producers. The impending decision on the live export trade for sheepmeat is weighing heavily on these producers.

As will be seen later in this report, this pessimistic outlook among WA producers is translating to a muted outlook and forecast going forward. This sentiment among WA producers is likely to have a ongoing impact on the estimates nationally.

| Future of **wool**. . . . | Nett sentiment: | +13 |
|---|---|---|
| | Non-WA producers | +15 |
| | WA producers | +1 |
| Future of **sheepmeat**. . . . | Nett sentiment: | +27 |
| | Non-WA producers | +37 |
| | WA producers | -48 |

### A profile of the breeding ewes flock

The May 2023 survey had a specific focus on understanding the profile of Australia's breeding ewes and wether flocks. Of the estimated 46M+ breeding ewes on hand:

o   Merinos (64% of total breeding ewe flock), first cross (14%) and prime lambs (12%) are the dominant breed types on hand (accounting for 90% of the total breeding ewe flock).

o   The breed mix varies across farm businesses with different flock sizes with the larger farms having a greater proportion of Merinos in their flock. Producers in NSW, SA, QLD and WA also have a larger proportion of Merinos, with Tasmania and Victoria reporting lower proportions.

### Producer intentions

Analysis of the feedback provided shows that:

o   At the producer level (that is considering each producer equal), there is a mixed response around their breeding ewes flock in the next 12 months:

   ▪   30% indicating they would increase their breeding ewe flock size;
   ▪   38% indicating it would remain unchanged; and
   ▪   32% indicating they would decrease their breeding ewe flock size.

   The growth posture was stronger among producers in QLD, although we do note QLD represents a small proportion of the overall national flock. WA producers unsurprisingly were more likely to forecast a decrease over the next 12 months. The very large producers (20K+ sheep) are less likely to be forecasting an increase in their flock – they overwhelmingly reported a "decrease" posture.

o   Analysis of the forecast intentions suggests a decrease of approximately 2.66M breeding ewes (6% fall) over the estimated 2023 flock size. This result highlights the importance of considering the reported changes in flock size rather than just producers' disposition to change.

   Details on the forecast change estimate – showing the impact from producers who have reported an increase as well as producers who were forecasting a decrease in their breeding ewe flock – is shown opposite.

   Consistent with the result above, WA producers are reporting a strong forecast decrease in breeding ewe flock numbers in the next 12 months (forecast to fall 18%), a result which may have ongoing impacts for the national flock.   Most other states are reporting only small forecast declines, highlighting the significant impact WA producers are having.

| | |
|---|---|
| Increase from 2023 to 2024 | 30% |
| No change | 38% |
| Decrease from 2023 to 2024 | 32% |
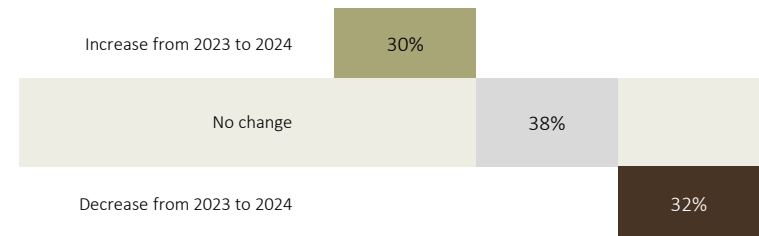
**2024 BREEDING EWE FLOCK FORECAST**

| | |
|---|---|
| Total reported flock size for 2023: | 46,144,618 |
| Total expected flock size for 2024: | 43,484,677 |
| Difference of: | - 2,659,942 |
| % forecast change on 2023: | - 6% |

# Observations and insights:
## Wethers

**A profile of the wether flock**

The May 2023 survey has estimated there are 9.2M wethers on hand, with Merinos (87% of total flock) being the dominant breed type on hand.

**Producer intentions**

Analysis of the feedback provided shows that:

o   At the producer level (that is considering each producer equal), there is a net intention to decrease their wether flocks in the next 12 months:

  ▪  19% indicating they would increase their wether flock size;
  ▪  53% indicating it would remain unchanged; and
  ▪  28% indicating they would decrease their wether flock size.

   Once again, WA producers were more likely to forecast a decrease over the next 12 months (45% forecast a decrease). The very large producers (20K+ sheep) provided a more positive forecast (33% forecasting an increase) while producers in the core of the sector (3K – 20K total flock) are more likely to report no change or a decrease.

o   Analysis of the forecast intentions suggests a decrease of approximately 1.28M wethers (14% decrease) over the estimated 2023 flock size. This result highlights the importance of considering the reported changes in flock size rather than just producers' disposition to change.

   Details on the forecast change estimate – showing the impact from producers who have reported an increase as well as producers who were forecasting a decrease in their wether flock –  is shown opposite.

   WA producers are reporting a strong forecast fall in wether flock numbers in the next 12 months (forecast to fall 33%). Producers in SA (down 15%) and Victoria (down 12%) are also reporting notable forecast decreases.

| | |
|---|---|
| Increase from 2023 to 2024 | 19% |
| No change | 53% |
| Decrease from 2023 to 2024 | 28% |
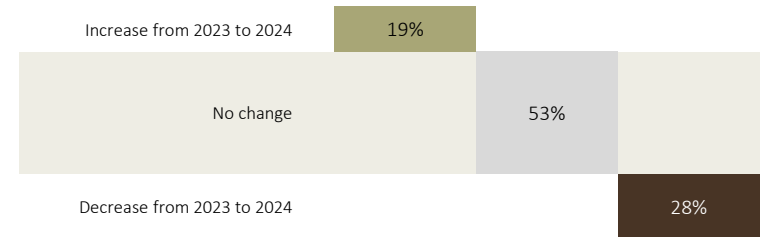
**2024 WETHER FLOCK FORECAST**

| | |
|---|---|
| Total reported flock size for 2023: | 9,198,556 |
| Total expected flock size for 2024: | 7,921,507 |
| Difference of: | - 1,277,049 |
| % forecast change on 2023: | - 14% |
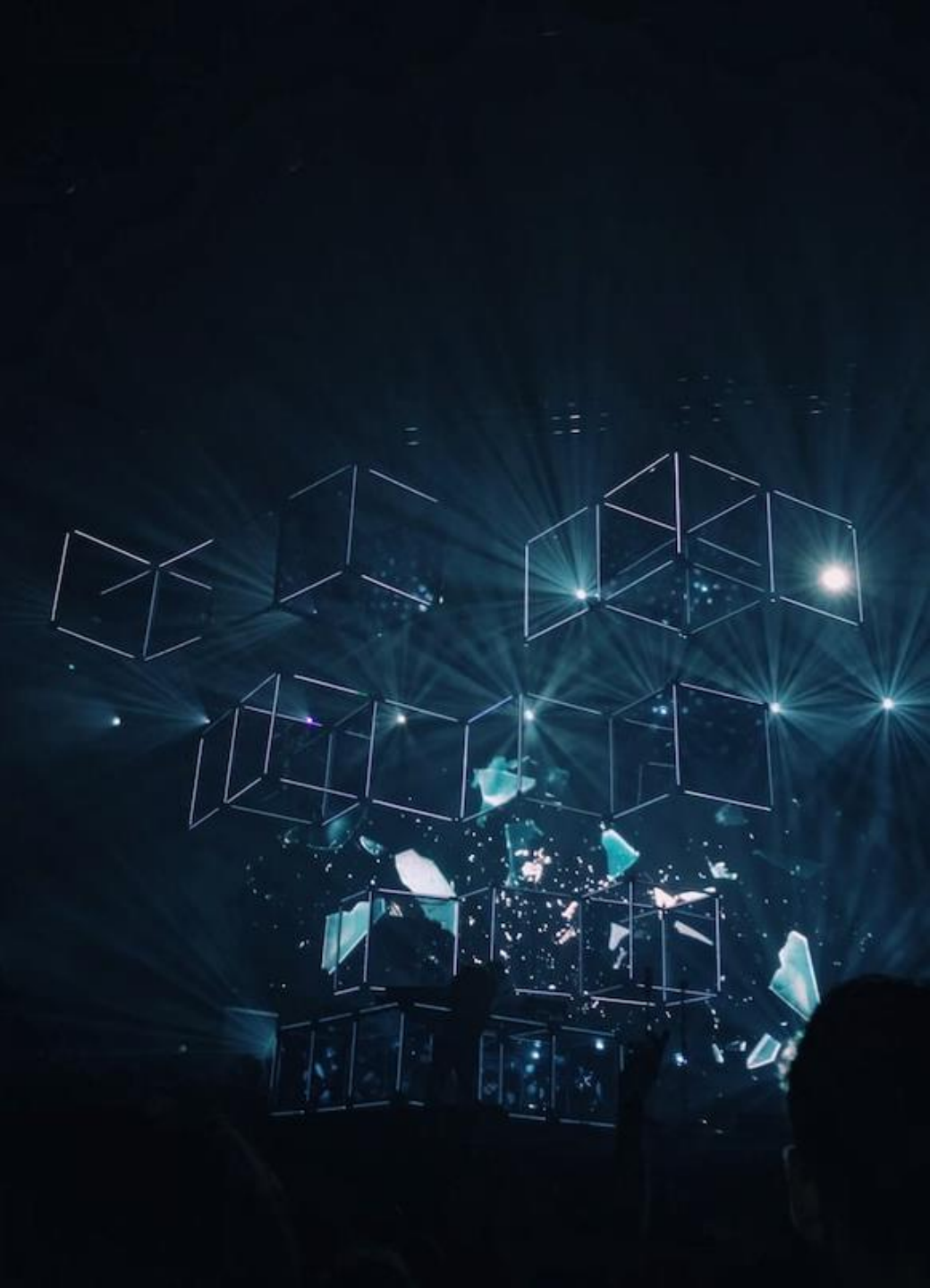
Producer sentiment

# Sentiment: outlook for the wool sector

Q1. Firstly, how do you feel about the future of the wool industry over the next 12 months? Would you say you feel…?
Base: All respondents, n = 1,958

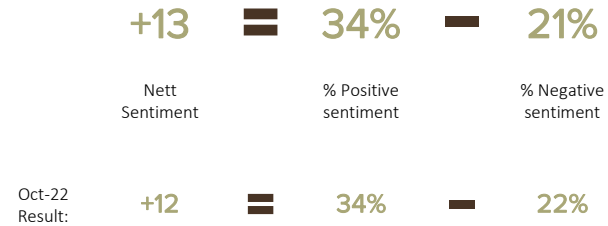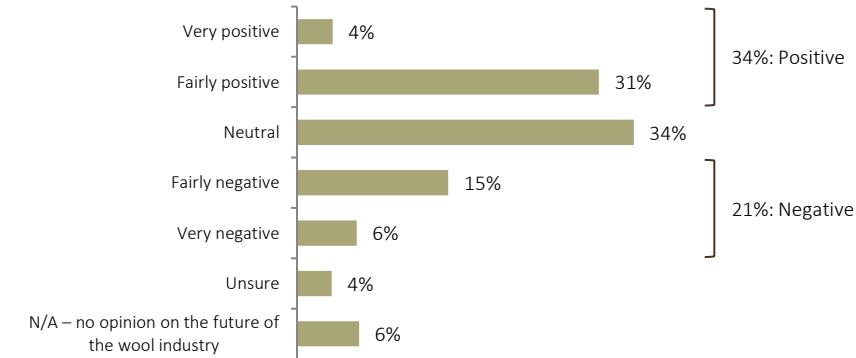| Category | Value |
|---|---|
| Very positive | 4% |
| Fairly positive | 31% |
| Neutral | 34% |
| Fairly negative | 15% |
| Very negative | 6% |
| Unsure | 4% |
| N/A – no opinion on the future of the wool industry | 6% |

34%: Positive
21%: Negative

**Nett Sentiment**
(scale of -100 to +100)

| +13 = | 34% − | 21% |
|---|---|---|
| Nett Sentiment | % Positive sentiment | % Negative sentiment |

Oct-22 Result:

| +12 = | 34% − | 22% |
|---|---|---|

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| Base: | 646 | 68 | 291 | 77 | 470 | 405 | 454 | 305 | 393 | 211 | 272 | 214 | 86 | 23 |
| Nett Sentiment | +18 | +23 | +15 | +9 | +9 | +1 | +17 | +8 | +9 | +19 | +1 | +7 | +8 | +28 |
| Change from October 2022 | ↑ 4 | ↓ 15 | ↑ 4 | ↑ 12 | ↓ 2 | ↓ 5 | ↓ 6 | ↑ 1 | ↑ 6 | ↑ 19 | 0 | ↑ 7 | ↑ 13 | ↑ 27 |

*The comparative Rabobank measure. . . . .*

March 2023 Quarter: 'Confidence in the sheep sector also remained broadly unchanged. As with other sectors, sheep producers who do think the economy could worsen again pointed to falling commodity prices (79 per cent up from 35 per cent last quarter) and rising interest rates (15 per cent up from six per cent last quarter).'

December 2022 Quarter: 'Likewise, confidence among sheep producers also improved – although the shift wasn't as significant as the beef sector. Nearly half of sheep producers expect conditions to remain the same (49 per cent, up from 45 per cent), and fewer now expect conditions to worsen.'

Source of Rabobank commentary: Rabobank Rural Confidence Survey

# Sentiment: outlook for the sheepmeat sector

Q2. And how do you feel about the future of the sheepmeat industry over the next 12 months? Would you say you feel…?
Base: All respondents, n = 1,958

Nett Sentiment
(scale of -100 to +100)



| | Very positive | 8% |
| | Fairly positive | 40% |
| | Neutral | 29% |
| | Fairly negative | 15% |
| | Very negative | 6% |
| | Unsure | 2% |
| | N/A – no opinion on the future of the sheepmeat industry | 1% |

48%: Positive
21%: Negative

**+27** = **48%** – **21%**

Nett Sentiment | % Positive sentiment | % Negative sentiment

Oct-22 Result: **+67** = **73%** – **6%**

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| Nett Sentiment | +36 | +50 | +29 | +47 | +40 | -48 | +17 | +8 | +9 | +19 | +1 | +7 | +8 | +28 |
| Change from October 2022 | ↓ 32 | ↓ 25 | ↓ 40 | ↓ 13 | ↓ 37 | ↓ 90 | ↓ 58 | ↓ 51 | ↓ 56 | ↓ 39 | ↓ 56 | ↓ 53 | ↓ 51 | ↓ 47 |

# Estimates of the total flock size

# Estimates of the total flock size
## (breeding ewes + wethers + lambs)

For the purposes of this research, the total flock estimates included estimates of breeding ewes (including ewe lambs and hoggets intended for breeding), wethers, and lambs (not including ewe lambs and hoggets intended for breeding) on hand at 30 April 2023.

Q3-Q5. What were the total number of breeding ewes (including ewe lambs and hoggets intended for breeding), wethers, and lambs (not including ewe lambs and hoggets intended for breeding) you had on hand at 30 April 2023?
Base: All respondents, n = 1,958



Lambs 21%
Wethers 13%
Breeding ewes 66%

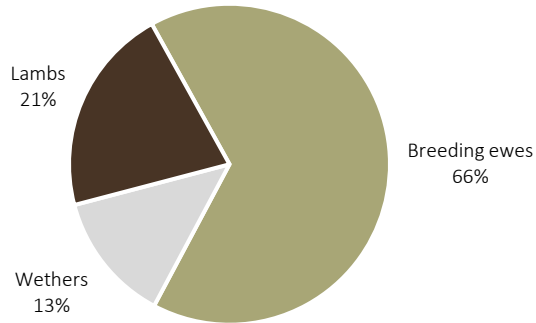| | | % of producers with type of flock |
|---|---|---|
| Breeding ewes (including ewe lambs and hoggets intended for breeding) on hand at 30 April 2023: | 46,144,618 | 96% |
| Wethers on hand at 30 April 2023: | 9,198,556 | 61% |
| Lambs (not including ewe lambs and hoggets intended for breeding) on hand at 30 April 2023: | 14,739,403 | 75% |

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| **% of total flock size** | | | | | | | | | | | | | | |
| Breeding ewes | 64% | 58% | 71% | 58% | 67% | 68% | 67% | 65% | 67% | 66% | 67% | 65% | 64% | 67% |
| Wethers | 14% | 22% | 10% | 12% | 13% | 13% | 12% | 14% | 12% | 14% | 12% | 15% | 12% | 13% |
| Lambs | 23% | 20% | 19% | 30% | 20% | 18% | 21% | 21% | 21% | 21% | 21% | 20% | 24% | 20% |

# Estimates of the total flock size
## (breeding ewes + wethers + lambs)

Proportion of total flock size across states
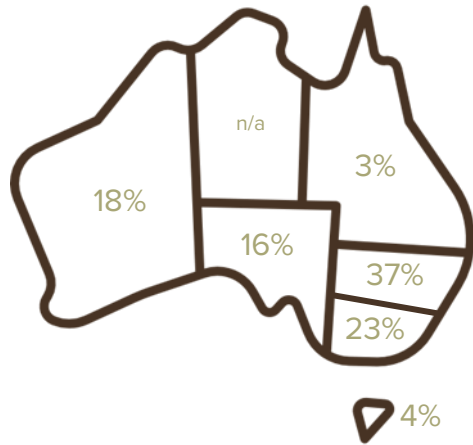


*NSW and VIC account for an estimated 60% of the total flock size.*

*SA and WA account for 34% with QLD, TAS and the territories estimated to account for just a small proportion of the total national flock.*

Proportion of total flock size across total flock size categories



*While there are many smaller producers (for example 37% of producers have less than 3,000 sheep), it is the larger producers which have a greater proportion of the national sheep flock (63% of the total flocks held by producers with 3,000 or more sheep and 20% with producers who have 10,000 or more sheep).*

*It will inevitably be then the decisions made by these larger producer cohorts that will shape and influence national trends.*
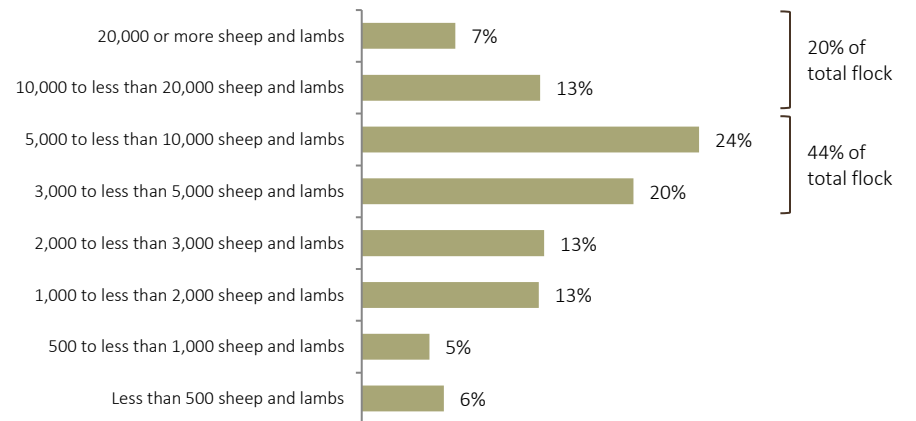
# A focus on: Breeding ewes

This section of the report includes estimates of:

1.  Breeding ewe flock profiles, a profile of the breeds on hand, a summary of the Merinos for lamb production and an estimate of the breeding ewes joining rate.

2.  Producer intentions over the next 12 months: breeding ewe flock increases or decreases and the number of breeding ewes forecast for 2024.

# Breeding ewe flock profile

# Breeding ewe flock profiles

Q3. What were the total number of breeding ewes (including ewe lambs and hoggets intended for breeding) you had on hand at 30 April 2023?
Base: All respondents, n = 1,958

Breeding ewes
(including ewe lambs and hoggets intended for breeding):     **46,144,618**

% of total flock size:     **66%**

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| Breeding ewe flock size | 16,394,195 | 1,234,245 | 7,443,073 | 1,564,785 | 10,596,752 | 8,909,466 | 2,763,967 | 2,210,034 | 5,953,266 | 6,035,245 | 9,160,633 | 11,050,177 | 5,787,965 | 3,183,331 |
| % of total flock size | 64% | 58% | 71% | 58% | 67% | 68% | 67% | 65% | 67% | 66% | 67% | 65% | 64% | 67% |

# Breeding ewe flock – breeds on hand

Q7 and Q8. Of these [Q3 ANSWER] breeding ewes you mentioned earlier, please tell us which of the following types of breeding ewe breeds you have across your properties:
Base: All respondents with breeding ewes, n = 1,892

Total breeding ewe flock size reported: **46,144,618**

| | | % of total breeding ewe flock | % of producers with breed | | | Definitions of breeds presented to producers: |
|---|---|---|---|---|---|---|
| Merino | 29,691,356 | 64% | 56% | - - - - - - - - - | Merino | Main breed of sheep for wool production. |
| First cross | 6,371,483 | 14% | 27% | - - - - - - - - - | First cross | Merino crossed with a long-haired sheep of a different breed. |
| Prime lamb | 5,319,047 | 12% | 19% | - - - - - - - - - | Prime lamb | Animal entirely focused on meat (lamb) production e.g. Composite, Terminal, Suffolk or Dorset. |
| Dual purpose | 2,494,447 | 5% | 9% | - - - - - - - - - | Dual purpose | Animal with no more than 50% Merino content geared towards both meat and wool production equally. |
| Shedding | 1,909,857 | 4% | 13% | - - - - - - - - - | Shedding | Breeds of sheep that shed their wool without shearing e.g. Australian White or Dorper. Could also be referred to as hair sheep. |
| Other | 358,429 | 1% | 3% | - - - - - - - - - | Other | Any breeds that do not fit into the definitions above. |

# Breeding ewe flock – breeds on hand

Q7 and Q8. Of these [Q3 ANSWER] breeding ewes you mentioned earlier, please tell us which of the following types of breeding ewe breeds you have across your properties:
Base: All respondents with breeding ewes, n = 1,892

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| Base: | 624 | 66 | 283 | 74 | 450 | 394 | 425 | 287 | 384 | 206 | 270 | 212 | 85 | 23 |
| Total breeding ewe flock size | 16,394,195 | 1,234,245 | 7,443,073 | 1,564,785 | 10,596,752 | 8,909,466 | 2,763,967 | 2,210,034 | 5,953,266 | 6,035,245 | 9,160,633 | 11,050,177 | 5,787,965 | 3,183,331 |
| % of total breeding ewe flock | | | | | | | | | | | | | | |
| Merino | 65% | 72% | 66% | 44% | 47% | 85% | 37% | 46% | 62% | 64% | 65% | 70% | 69% | 76% |
| First cross | 16% | <1% | 12% | 5% | 25% | 2% | 25% | 25% | 17% | 16% | 12% | 12% | 11% | 5% |
| Prime lamb | 8% | 4% | 10% | 45% | 21% | 3% | 15% | 11% | 11% | 7% | 11% | 11% | 16% | 15% |
| Dual purpose | 5% | 1% | 7% | 5% | 5% | 6% | 8% | 9% | 5% | 9% | 6% | 4% | 3% | <1% |
| Shedding | 5% | 23% | 3% | 1% | 1% | 4% | 14% | 7% | 5% | 4% | 5% | 3% | <1% | 3% |
| Other | 1% | <1% | 2% | 1% | 1% | <1% | 2% | 2% | 1% | <1% | 2% | <1% | <1% | 0% |

# Breeding ewe flock – Merinos for lamb production

Q9. Of the [Q8 ANSWER] Merino breeding ewes on hand, how many were for pure bred
Merino lamb production and how many were for crossbred lamb production?
Base: All respondents with Merino breeding ewes, n = 1,244

|  | | % of Merino breeding ewe flock |
|---|---|---|
| Total Merino breeding ewe flock size: | 29,691,356 | |
| Merino ewes for pure bred Merino lamb production | 20,919,423 | 70% |
| Merino ewes for crossbred lamb production | 7,576,934 | 26% |
| Merino ewes - other | 1,194,999 | 4% |

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *407* | *38* | *207* | *30* | *245* | *317* | *170* | *166* | *282* | *158* | *203* | *180* | *67* | *18* |
| **Total Merino breeding ewe flock size** | 10,656,256 | 886,469 | 4,877,191 | 688,667 | 5,005,646 | 7,577,126 | 1,029,507 | 1,020,314 | 3,679,759 | 3,865,167 | 5,924,666 | 7,747,666 | 3,999,124 | 2,425,153 |
| **% of total Merino breeding ewe flock** | | | | | | | | | | | | | | |
| Merino ewes for pure bred Merino lamb production | 74% | 91% | 66% | 78% | 57% | 74% | 45% | 60% | 64% | 73% | 72% | 69% | 77% | 83% |
| Merino ewes for crossbred lamb production | 23% | 4% | 28% | 21% | 39% | 21% | 52% | 37% | 31% | 25% | 24% | 26% | 19% | 15% |
| Merino ewes - other | 2% | 5% | 6% | <1% | 4% | 5% | 3% | 3% | 5% | 3% | 4% | 5% | 5% | 2% |

# Breeding ewe flock – breeding ewes expected to join

Q10. Of the [Q3 ANSWER] total breeding ewes, how many do you expect to join to produce lambs for the upcoming season? Please tell us the breakdown by the following type of breeding ewe breeds across your properties:

Base: All respondents with breeding ewes, n = 1,892

| | | Expected joining rate |
|---|---|---|
| Total breeding ewes expected to join: | 39,981,553 | |
| Merino ewes for pure bred Merino lamb production expected to join | 18,592,775 | 89% |
| Merino ewes for crossbred lamb production expected to join | 7,300,013 | 96% |
| Non-Merino ewes for lamb production expected to join | 14,088,764 | 86% |

*Calculation of joining rate (example: Merino ewes for pure bred Merino lamb production):*

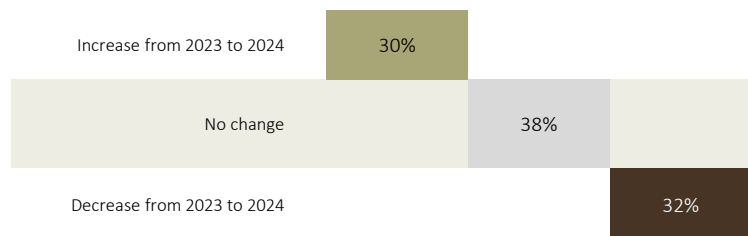| | |
|---|---|
| Estimate of total number of breeding ewes expected to join: | 18,592,775 |
| | ÷ |
| Estimated total number of breeding ewes: | 20,919,423 |
| | = |
| Expected joining rate: | 89% |

Producer intentions: breeding ewe flock

# Producer intentions over the next 12 months: breeding ewe flock

Q12. And how many breeding ewes are you expecting to have on hand at the same time next year, in 2024 (30 April 2024)?
Base: All respondents, n = 1,958

| | |
|---|---|
| Increase from 2023 to 2024 | 30% |
| No change | 38% |
| Decrease from 2023 to 2024 | 32% |

*Producers provided an indication of their intention for their breeding ewe flock over the next 12 months.*

*Among the producers responding to the May 2023 survey, there was a near-even split between those reporting they would be increasing their flock (30%), those reporting they would be downsizing their flock (32%), and those reporting no expected change (38%).*

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

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| Increase from 2023 to 2024 | 33% | 55% | 27% | 31% | 27% | 19% | 31% | 26% | 31% | 30% | 27% | 28% | 28% | 22% |
| No change | 38% | 22% | 40% | 50% | 41% | 35% | 41% | 40% | 35% | 31% | 37% | 40% | 36% | 23% |
| Decrease from 2023 to 2024 | 29% | 24% | 34% | 19% | 32% | 46% | 28% | 34% | 34% | 39% | 36% | 32% | 36% | 55% |

# How the forecast increase
# translates to breeding ewe flock numbers

**30%** of producers reported they are likely to have MORE breeding ewes next year

We asked these producers what they forecast the increase in breeding ewe flock numbers would be…

| | |
|---|---|
| >0% to 10% increase on 2023 flock | 10% |
| >10% to 25% increase on 2023 flock | 12% |
| >25% to 50% increase on 2023 flock | 6% |
| Over 50% increase on 2023 flock | 3% |
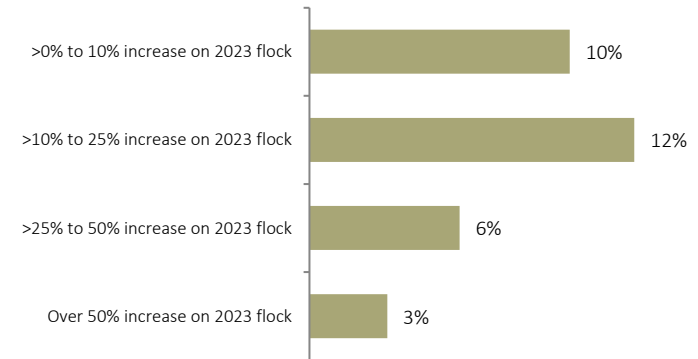
Of those who forecast an **increase** in breeding ewes…

| | |
|---|---|
| Total reported flock size for 2023: | 13,037,482 |
| Total forecast flock size for 2024: | 14,869,500 |
| Difference of: | + 1,832,018 |

# How producers intend to achieve this expected increase in breeding ewes in 2024

Q13. You mentioned that you expect to have more breeding ewes on hand as of 30 April 2024. How do you intend to achieve this change?
Base: All respondents who expect an increase in breeding ewe flock size in 2024, n = 549

**30%** of producers reported they are likely to have MORE breeding ewes next year

We asked these producers how they intend to achieve this expected increase in their breeding ewe flock numbers…

| Category | Percentage |
|---|---|
| Retain more replacement ewes than normal | 66% |
| Purchase more additional ewes than normal | 30% |
| Retain more older ewes than normal | 20% |
| Not sure | 3% |

# How the forecast decrease translates to breeding ewe flock numbers

**32%** of producers reported they are likely to have FEWER breeding ewes next year

We asked these producers what they forecast the decrease in breeding ewe flock numbers would be...

| | |
|---|---|
| >0% to 10% decrease on 2023 flock | 8% |
| >10% to 25% decrease on 2023 flock | 10% |
| >25% to 50% decrease on 2023 flock | 8% |
| Over 50% decrease on 2023 flock | 6% |
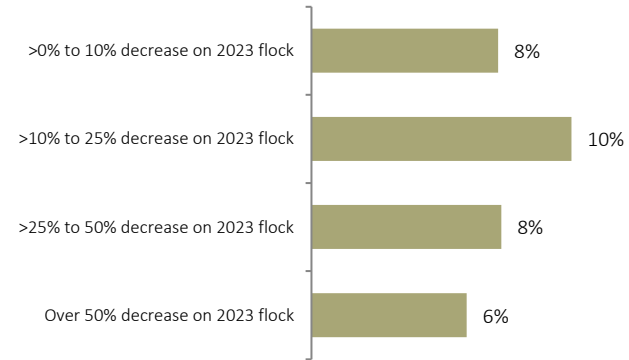
Of those who forecast a **decrease** in breeding ewes...

Total reported flock size for 2023: **16,878,657**

Total forecast flock size for 2024: **12,386,697**

Difference of: **- 4,491,960**

# How producers intend to achieve this expected decrease in breeding ewes in 2024

Q14. You mentioned that you expect to have less breeding ewes on hand as of 30 April 2024. How do you intend to achieve this change?
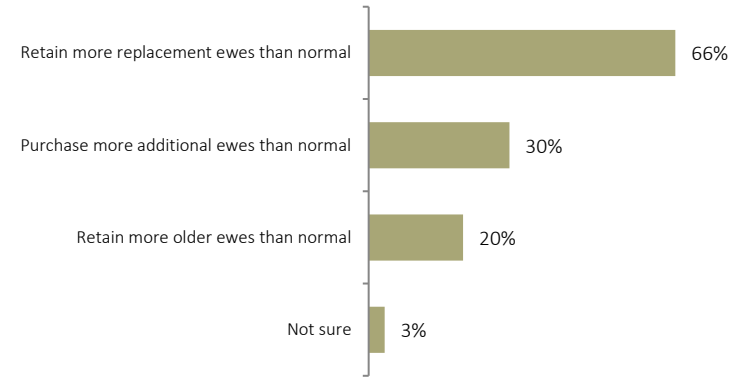Base: All respondents who expect a decrease in breeding ewe flock size in 2024, n = 676

**32%** of producers reported they are likely to have FEWER breeding ewes next year

We asked these producers how they intend to achieve this expected decrease in their breeding ewe flock numbers...

| | |
|---|---|
| Cull older ewes more heavily than normal | 69% |
| Sell more replacement ewes than normal | 38% |
| Not sure | 11% |
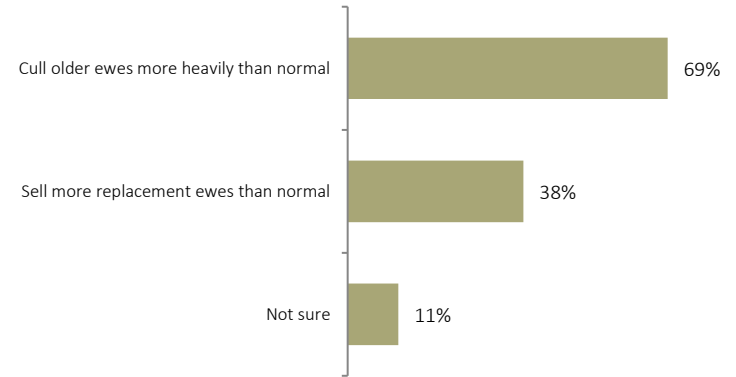
# Breeding ewes forecast for 2024

Taking into account the forecast size of the breeding ewe flock for those producers who indicated they would be increasing their flock size as well as those producers who indicated they would decrease their flock size, an estimation of the forecast breeding ewe flock for 2024 is shown below...

|  | 2024 BREEDING EWE FLOCK FORECAST |  | Of those who expect an increase in breeding ewes |  | Of those who expect no change in breeding ewes |  | Of those who expect a decrease in breeding ewes |
|---|---|---|---|---|---|---|---|
| Total reported flock size for 2023: | 46,144,618 | = | 13,037,482 | + | 16,228,479 | + | 16,878,657 |
| Total expected flock size for 2024: | 43,484,677 | = | 14,869,500 | + | 16,228,479 | + | 12,386,697 |
| Difference of: | - 2,659,942 | = | + 1,832,018 | + | 0 | + | - 4,491,960 |
| % forecast change on 2023: | - 6% |  |  |  |  |  |  |

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| Total reported flock size for 2023: | 16,394,195 | 1,234,245 | 7,443,073 | 1,564,785 | 10,596,752 | 8,909,466 | 2,763,967 | 2,210,034 | 5,953,266 | 6,035,245 | 9,160,633 | 11,050,177 | 5,787,965 | 3,183,331 |
| Total expected flock size for 2024: | 16,027,953 | 1,167,916 | 7,186,741 | 1,567,321 | 10,232,149 | 7,300,074 | 2,724,158 | 2,068,595 | 5,613,419 | 5,709,035 | 8,494,076 | 10,391,867 | 5,399,512 | 3,084,014 |
| Difference of: | -366,242 | -66,329 | -256,333 | 2,536 | -364,603 | -1,609,392 | -39,809 | -141,440 | -339,847 | -326,210 | -666,556 | -658,310 | -388,454 | -99,317 |
| % forecast change on 2023: | -2% | -5% | -3% | 0% | -3% | -18% | -1% | -6% | -6% | -5% | -7% | -6% | -7% | -3% |
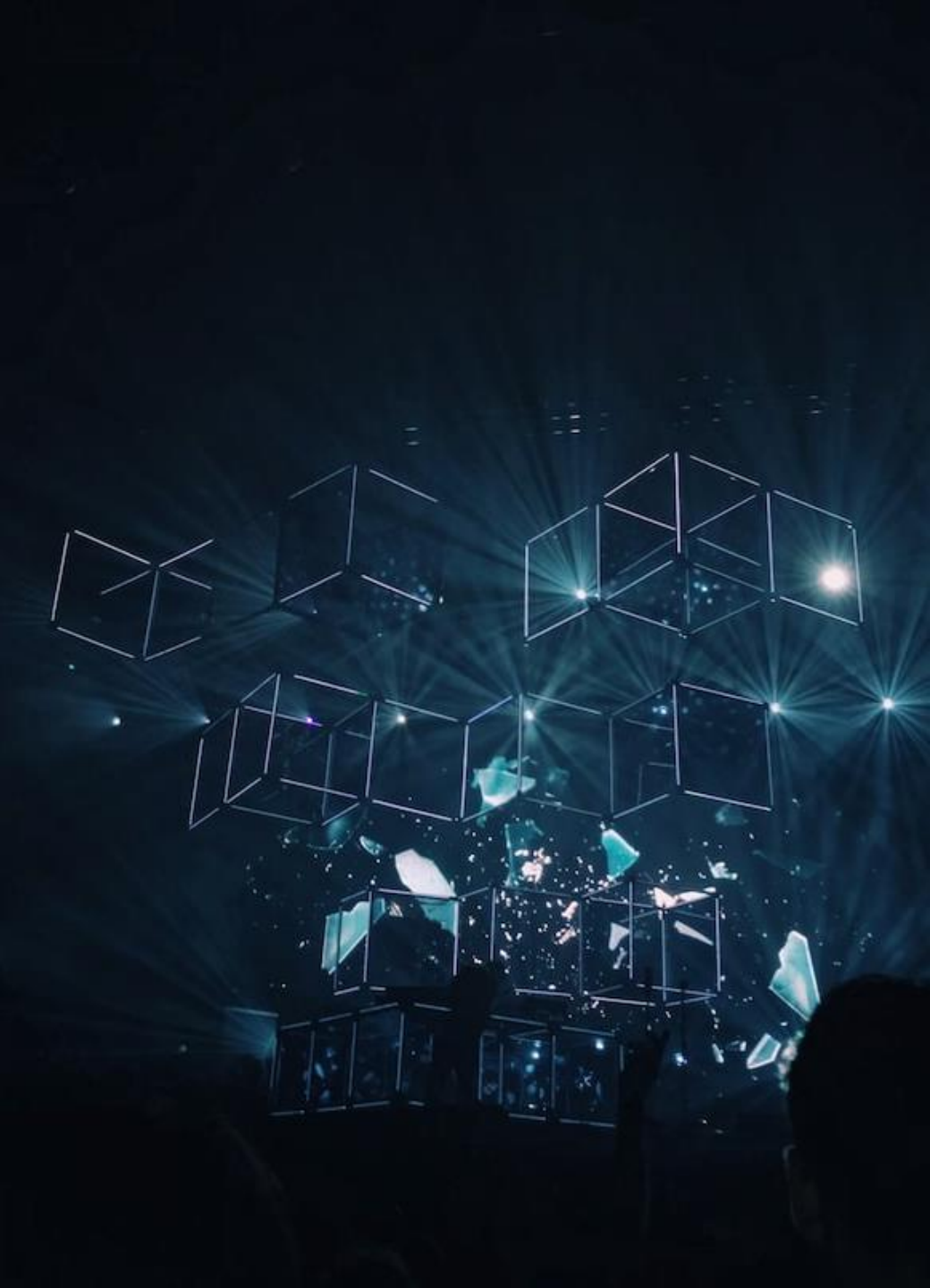
# A focus on: Wethers

This section of the report includes estimates of:

1. Wether flock profiles and a profile of the breeds on hand.

2. Producer intentions over the next 12 months: wether flock increases or decreases and the number of wethers forecast for 2024.

# Wether flock profile

# Wether flock profiles

Q4. What were the total number of wethers you had on hand at 30 April 2023?
Base: All respondents, n = 1,958

Wethers: **9,198,556**

% of total flock size: **13%**

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| Wether flock size | 3,502,541 | 458,476 | 1,043,291 | 322,925 | 2,110,995 | 1,760,327 | 486,796 | 475,544 | 1,098,037 | 1,243,086 | 1,605,852 | 2,615,900 | 1,057,452 | 615,889 |
| % of total flock size | 14% | 22% | 10% | 12% | 13% | 13% | 12% | 14% | 12% | 14% | 12% | 15% | 12% | 13% |

# Wether flock – breeds on hand

Q15 and Q16. Of these [Q4 ANSWER] wethers you mentioned earlier, please tell us which of the following types of wether breeds you have across your properties:
Base: All respondents with wethers, n = 1,246

Total wether flock size reported: **9,198,556**

*Definitions of breeds presented to producers:*

| | | % of total wether flock | % of producers with breed | | | |
|---|---|---|---|---|---|---|
| Merino | 7,962,472 | 87% | 63% | - - - - - - - - | Merino | Main breed of sheep for wool production. |
| First cross | 339,471 | 4% | 11% | - - - - - - - - | First cross | Merino crossed with a long-haired sheep of a different breed. |
| Prime lamb | 312,474 | 3% | 14% | - - - - - - - - | Prime lamb | Animal entirely focused on meat (lamb) production e.g. Composite, Terminal, Suffolk or Dorset. |
| Dual purpose | 302,356 | 3% | 7% | - - - - - - - - | Dual purpose | Animal with no more than 50% Merino content geared towards both meat and wool production equally. |
| Shedding | 241,987 | 3% | 10% | - - - - - - - - | Shedding | Breeds of sheep that shed their wool without shearing e.g. Australian White or Dorper. Could also be referred to as hair sheep. |
| Other | 39,796 | <1% | 3% | - - - - - - - - | Other | Any breeds that do not fit into the definitions above. |

# Wether flock – breeds on hand

Q15 and Q16. Of these [Q4 ANSWER] wethers you mentioned earlier, please tell us which of the
following types of wether breeds you have across your properties:
Base: All respondents with wethers, n = 1,246

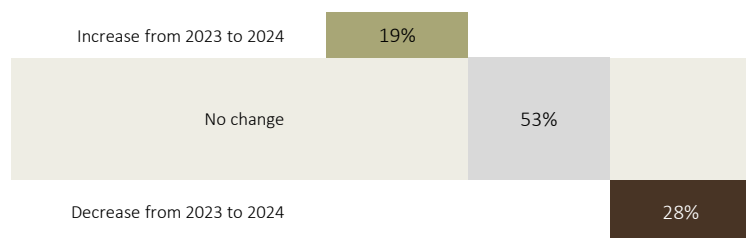| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| Base: | 418 | 54 | 173 | 34 | 259 | 308 | 263 | 168 | 234 | 142 | 186 | 173 | 63 | 17 |
| Total wether flock size | 3,502,541 | 458,476 | 1,043,291 | 322,925 | 2,110,995 | 1,760,327 | 486,796 | 475,544 | 1,098,037 | 1,243,086 | 1,605,852 | 2,615,900 | 1,057,452 | 615,889 |
| **% of total wether flock** | | | | | | | | | | | | | | |
| Merino | 83% | 79% | 87% | 96% | 89% | 91% | 65% | 83% | 85% | 88% | 86% | 91% | 96% | 74% |
| First cross | 5% | <1% | 3% | <1% | 5% | 1% | 7% | 5% | 4% | 2% | 5% | 3% | <1% | 10% |
| Prime lamb | 4% | <1% | 3% | 3% | 4% | 2% | 10% | 5% | 6% | 3% | 2% | 3% | <1% | 6% |
| Dual purpose | 4% | 0% | 4% | 1% | 1% | 5% | 10% | 1% | 3% | 5% | 4% | 2% | 3% | 1% |
| Shedding | 3% | 20% | 3% | 0% | <1% | 2% | 8% | 4% | 2% | 1% | 3% | 2% | <1% | 9% |
| Other | 1% | 1% | 1% | 0% | <1% | <1% | 1% | 1% | <1% | 1% | 1% | <1% | <1% | <1% |

Producer intentions: wether flock

# Producer intentions over the next 12 months: wether flock

Q18. And how many wethers are you expecting to have on hand at the same time next year, in 2024 (30 April 2024)?
Base: All respondents, n = 1,958

| | |
|---|---|
| Increase from 2023 to 2024 | 19% |
| No change | 53% |
| Decrease from 2023 to 2024 | 28% |

*Producers provided an indication of their intention for their wether flock over the next 12 months.*

*Among the producers responding to the May 2023 survey, around half (53%) expect no changed to the size of their wether flock in 2024, with a further 19% expecting more wethers in 2024 and 28% expecting fewer wethers in 2024.*

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

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| Increase from 2023 to 2024 | 27% | 31% | 11% | 11% | 14% | 19% | 21% | 16% | 19% | 23% | 14% | 18% | 18% | 33% |
| No change | 49% | 55% | 58% | 64% | 61% | 36% | 56% | 56% | 52% | 47% | 47% | 45% | 42% | 50% |
| Decrease from 2023 to 2024 | 25% | 14% | 32% | 24% | 24% | 45% | 23% | 28% | 29% | 30% | 38% | 38% | 40% | 16% |

# How the forecast increase translates to wether flock numbers

**19%** of producers reported they are likely to have MORE wethers next year

We asked these producers what they forecast the increase in wether flock numbers would be...

| | |
|---|---|
| >0% to 10% increase on 2023 flock | 2% |
| >10% to 25% increase on 2023 flock | 4% |
| >25% to 50% increase on 2023 flock | 4% |
| Over 50% increase on 2023 flock | 8% |
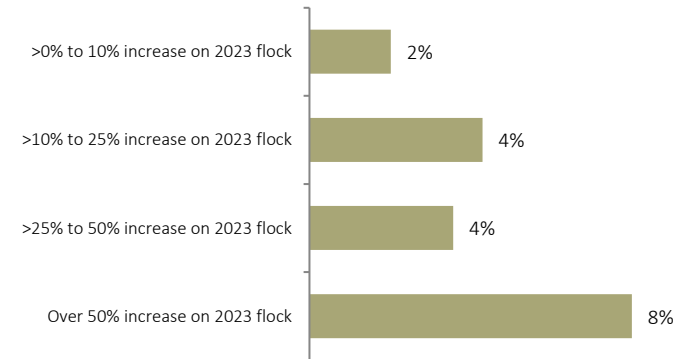
Of those who forecast an **increase** in wethers...

Total reported flock size for 2023:     2,434,368

Total forecast flock size for 2024:     3,434,002

Difference of:     + 999,634

# How the forecast decrease translates to wether flock numbers

28% of producers reported they are likely to have FEWER wethers next year

We asked these producers what they forecast the decrease in wether flock numbers would be…

Of those who forecast a **decrease** in wethers…

Total reported flock size for 2023: 4,141,893

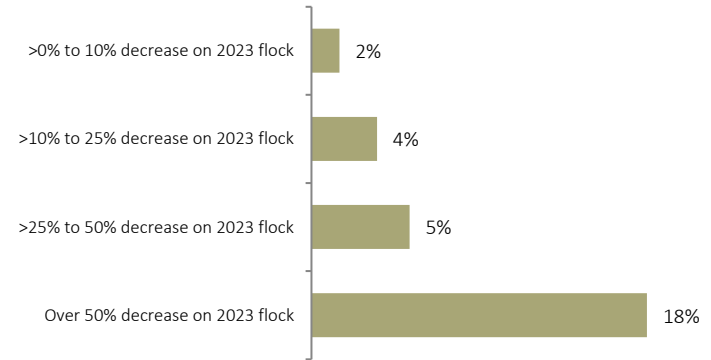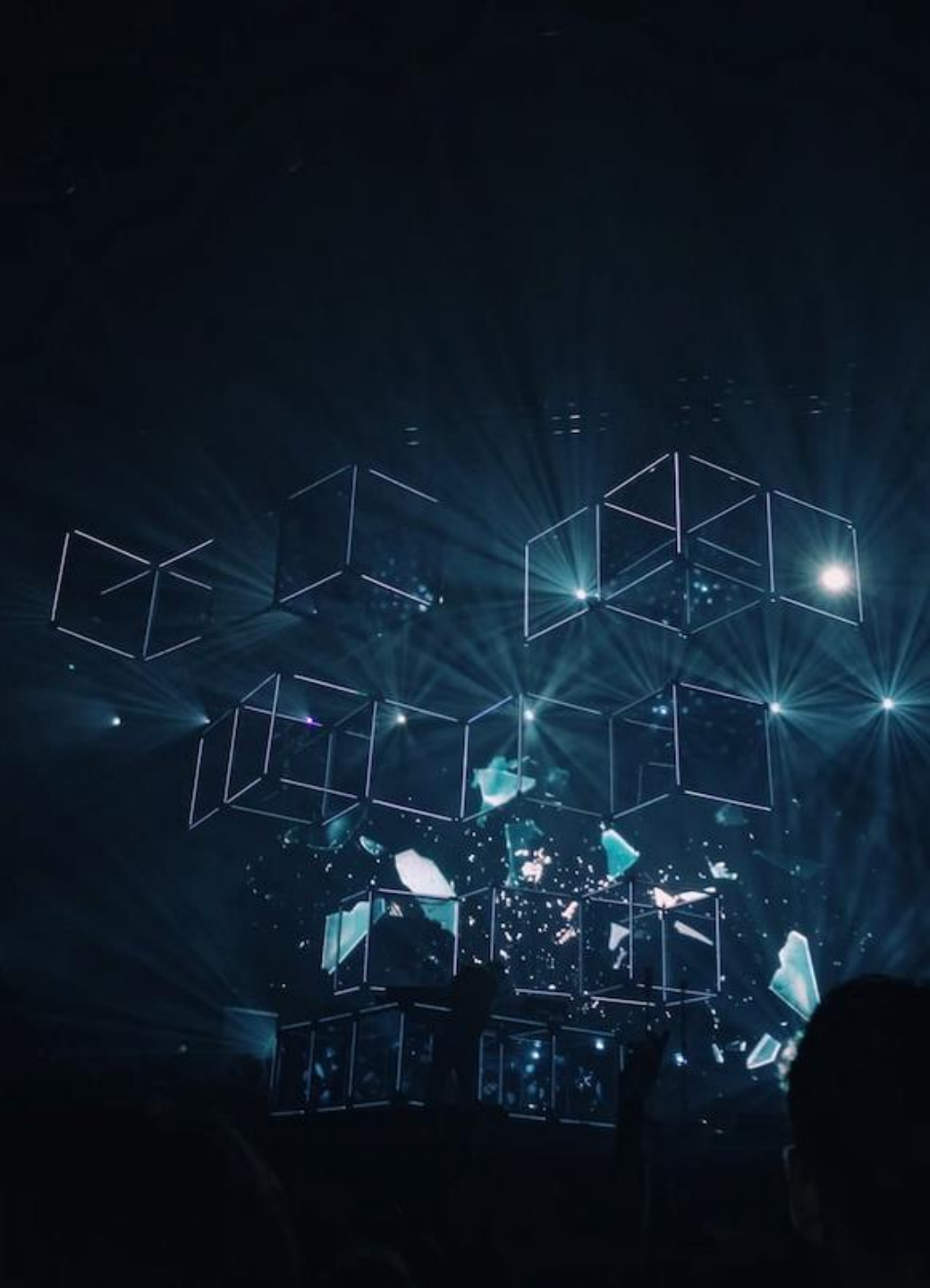Total forecast flock size for 2024: 1,865,209

Difference of: - 2,276,684

>0% to 10% decrease on 2023 flock — 2%

>10% to 25% decrease on 2023 flock — 4%

>25% to 50% decrease on 2023 flock — 5%

Over 50% decrease on 2023 flock — 18%

# Wethers forecast for 2024

Taking into account the forecast size of the wether flock for those producers who indicated they would be increasing their flock size as well as those producers who indicated they would decrease their flock size, an estimation of the forecast wether flock for 2024 is shown below...

| | **2024 WETHER FLOCK FORECAST** | | Of those who expect an increase in wethers | | Of those who expect no change in wethers | | Of those who expect a decrease in wethers |
|---|---|---|---|---|---|---|---|
| Total reported flock size for 2023: | 9,198,556 | = | 2,434,368 | + | 2,622,295 | + | 4,141,893 |
| Total expected flock size for 2024: | 7,921,507 | = | 3,434,002 | + | 2,622,295 | + | 1,865,209 |
| Difference of: | - 1,277,049 | = | + 999,634 | + | 0 | + | - 2,276,684 |
| % forecast change on 2023: | - 14% | | | | | | |

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | 646 | 68 | 291 | 77 | 470 | 405 | 454 | 305 | 393 | 211 | 272 | 214 | 86 | 23 |
| Total reported flock size for 2023: | 3,502,541 | 458,476 | 1,043,291 | 322,925 | 2,110,995 | 1,760,327 | 486,796 | 475,544 | 1,098,037 | 1,243,086 | 1,605,852 | 2,615,900 | 1,057,452 | 615,889 |
| Total expected flock size for 2024: | 3,218,855 | 472,457 | 891,857 | 295,568 | 1,865,020 | 1,177,751 | 503,827 | 433,475 | 948,583 | 1,138,660 | 1,312,086 | 2,108,822 | 796,845 | 679,209 |
| Difference of: | -283,686 | 13,980 | -151,434 | -27,357 | -245,976 | -582,577 | 17,031 | -42,070 | -149,453 | -104,426 | -293,765 | -507,078 | -260,608 | 63,320 |
| % forecast change on 2023: | -8% | 3% | -15% | -8% | -12% | -33% | 3% | -9% | -14% | -8% | -18% | -19% | -25% | 10% |

# Summary of results: state & flock size

# Summary of results by state

| | OVERALL | State | | | | | |
|---|---|---|---|---|---|---|---|
| | | NSW | QLD | SA | TAS | VIC | WA |
| *Base:* | *1,958* | *646* | *68* | *291* | *77* | *470* | *405* |
| **SENTIMENT** | | | | | | | |
| Nett sentiment – wool industry | +13 | +18 | +23 | +15 | +9 | +9 | +1 |
| Nett sentiment – sheepmeat industry | +27 | +36 | +50 | +29 | +47 | +40 | -48 |
| | | | | | | | |
| **BREEDING EWE flock profile** | | | | | | | |
| Estimate of total breeding ewe flock | 46.14M | 16.39M | 1.23M | 7.44M | 1.56M | 10.60M | 8.91M |
| Dominant breeds on hand: | | | | | | | |
|    Merino | 64% | 65% | 72% | 66% | 44% | 47% | 85% |
|    First cross | 14% | 16% | <1% | 12% | 5% | 25% | 2% |
|    Prime lamb | 12% | 8% | 4% | 10% | 45% | 21% | 3% |
| **BREEDING EWE producer intentions** | | | | | | | |
| Reported breeding ewe flock size for 2023 | 46.14M | 16.39M | 1.23M | 7.44M | 1.56M | 10.60M | 8.91M |
| Forecast breeding ewe flock size for 2024 | 43.48M | 16.03M | 1.17M | 7.19M | 1.57M | 10.23M | 7.30M |
| Forecasted change in total breeding ewe flock | - 6% | - 2% | - 5% | - 3% | 0% | - 3% | - 18% |
| Producer-level intentions (ignoring size): | | | | | | | |
|    Increase from 2023 to 2024 | 30% | 33% | 55% | 27% | 31% | 27% | 19% |
|    No change | 38% | 38% | 22% | 40% | 50% | 41% | 35% |
|    Decrease from 2023 to 2024 | 32% | 29% | 24% | 34% | 19% | 32% | 46% |
| | | | | | | | |
| **WETHER flock profile** | | | | | | | |
| Estimate of total wether flock | 9.20M | 3.50M | 0.46M | 1.04M | 0.32M | 2.11M | 1.76M |
| Dominant breeds on hand: | | | | | | | |
|    Merino | 87% | 83% | 79% | 87% | 96% | 89% | 91% |
|    First cross | 4% | 5% | <1% | 3% | <1% | 5% | 1% |
|    Prime lamb | 3% | 4% | <1% | 3% | 3% | 4% | 2% |
| **WETHER producer intentions** | | | | | | | |
| Reported wether flock size for 2023 | 9.20M | 3.50M | 0.46M | 1.04M | 0.32M | 2.11M | 1.76M |
| Forecast wether flock size for 2024 | 7.92M | 3.22M | 0.47M | 0.89M | 0.30M | 1.87M | 1.18M |
| Forecasted change in total wether flock | - 14% | - 8% | + 3% | - 15% | - 8% | - 12% | - 33% |
| Producer-level intentions (ignoring size): | | | | | | | |
|    Increase from 2023 to 2024 | 19% | 27% | 31% | 11% | 11% | 14% | 19% |
|    No change | 53% | 49% | 55% | 58% | 64% | 61% | 36% |
|    Decrease from 2023 to 2024 | 28% | 25% | 14% | 32% | 24% | 24% | 45% |

# Summary of results by total flock size

| | OVERALL | Total Flock Size (sheep and lambs) | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| Base: | 1,958 | 454 | 305 | 393 | 211 | 272 | 214 | 86 | 23 |
| **SENTIMENT** | | | | | | | | | |
| Nett sentiment – wool industry | +13 | +17 | +8 | +9 | +19 | +1 | +7 | +8 | +28 |
| Nett sentiment – sheepmeat industry | +27 | +17 | +8 | +9 | +19 | +1 | +7 | +8 | +28 |
| | | | | | | | | | |
| **BREEDING EWE flock profile** | | | | | | | | | |
| Estimate of total breeding ewe flock | 46.14M | 2.76M | 2.21M | 5.95M | 6.04M | 9.16M | 11.05M | 5.79M | 3.18M |
| Dominant breeds on hand: | | | | | | | | | |
| Merino | 64% | 37% | 46% | 62% | 64% | 65% | 70% | 69% | 76% |
| First cross | 14% | 25% | 25% | 17% | 16% | 12% | 12% | 11% | 5% |
| Prime lamb | 12% | 15% | 11% | 11% | 7% | 11% | 11% | 16% | 15% |
| **BREEDING EWE producer intentions** | | | | | | | | | |
| Reported breeding ewe flock size for 2023 | 46.14M | 2.76M | 2.21M | 5.95M | 6.04M | 9.16M | 11.05M | 5.79M | 3.18M |
| Forecast breeding ewe flock size for 2024 | 43.48M | 2.72M | 2.07M | 5.61M | 5.71M | 8.49M | 10.39M | 5.40M | 3.08M |
| Forecasted change in total breeding ewe flock | - 6% | -1% | -6% | -6% | -5% | -7% | -6% | -7% | -3% |
| Producer-level intentions (ignoring size): | | | | | | | | | |
| Increase from 2023 to 2024 | 30% | 31% | 26% | 31% | 30% | 27% | 28% | 28% | 22% |
| No change | 38% | 41% | 40% | 35% | 31% | 37% | 40% | 36% | 23% |
| Decrease from 2023 to 2024 | 32% | 28% | 34% | 34% | 39% | 36% | 32% | 36% | 55% |
| | | | | | | | | | |
| **WETHER flock profile** | | | | | | | | | |
| Estimate of total wether flock | 9.20M | 0.49M | 0.48M | 1.10M | 1.24M | 1.61M | 2.62M | 1.06M | 0.62M |
| Dominant breeds on hand: | | | | | | | | | |
| Merino | 87% | 65% | 83% | 85% | 88% | 86% | 91% | 96% | 74% |
| First cross | 4% | 7% | 5% | 4% | 2% | 5% | 3% | <1% | 10% |
| Prime lamb | 3% | 10% | 5% | 6% | 3% | 2% | 3% | <1% | 6% |
| **WETHER producer intentions** | | | | | | | | | |
| Reported wether flock size for 2023 | 9.20M | 0.49M | 0.48M | 1.10M | 1.24M | 1.61M | 2.62M | 1.06M | 0.62M |
| Forecast wether flock size for 2024 | 7.92M | 0.50M | 0.43M | 0.95M | 1.14M | 1.31M | 2.11M | 0.80M | 0.68M |
| Forecasted change in total wether flock | - 14% | + 3% | - 9% | - 14% | - 8% | - 18% | - 19% | - 25% | + 10% |
| Producer-level intentions (ignoring size): | | | | | | | | | |
| Increase from 2023 to 2024 | 19% | 21% | 16% | 19% | 23% | 14% | 18% | 18% | 33% |
| No change | 53% | 56% | 56% | 52% | 47% | 47% | 45% | 42% | 50% |
| Decrease from 2023 to 2024 | 28% | 23% | 28% | 29% | 30% | 38% | 38% | 40% | 16% |
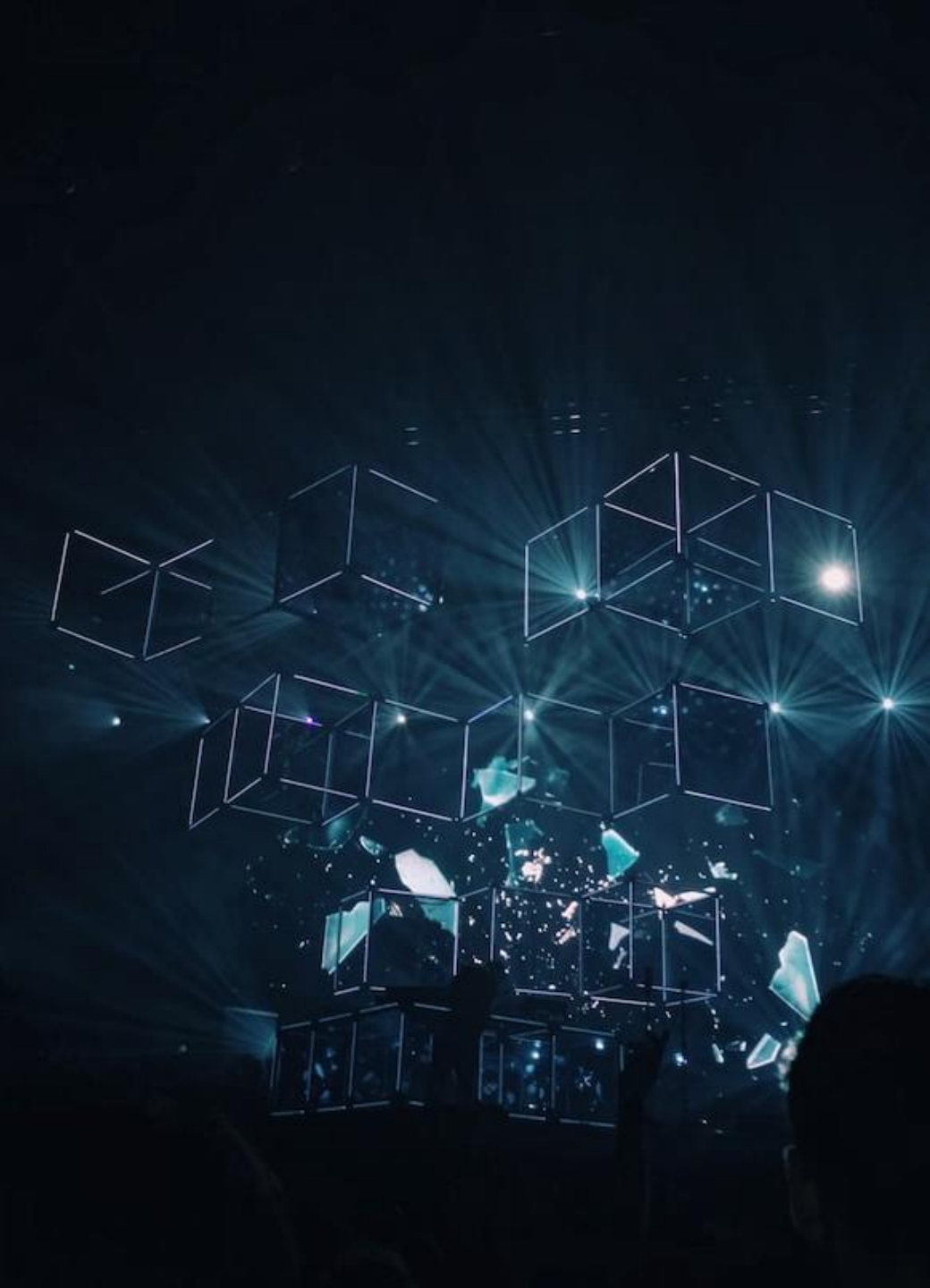
Additional analysis

# Breeding ewe flock size: a 3-year perspective

As part of the May 2023 Sheep Producers Intentions Survey, producers were asked to look back and estimate what their breeding ewe flock was in 2022 as well as to look forward and forecast their breeding ewe flock size for 2024. This then provided 3 points in time – the 2022 flock size, the current 2023 flock size and the forecast flock size for 2024. An analysis of this data is shown below.

We asked producers to look back and estimate what their breeding ewe flock was in 2022

MAY 2023
Reported number of breeding ewes on hand

We asked producers to look forward and forecast their breeding ewe flock in 2024

Increase from 2022 to 2023 — 50%

No change — 25%

Decrease from 2022 to 2023 — 25%

These diagrams represent the change from 2023 breeding ewe flock – looking back and then forecasting forward

Increase from 2023 to 2024 — 30%

No change — 38%

Decrease from 2023 to 2024 — 32%

# Breeding ewe flock size: a 3-year perspective

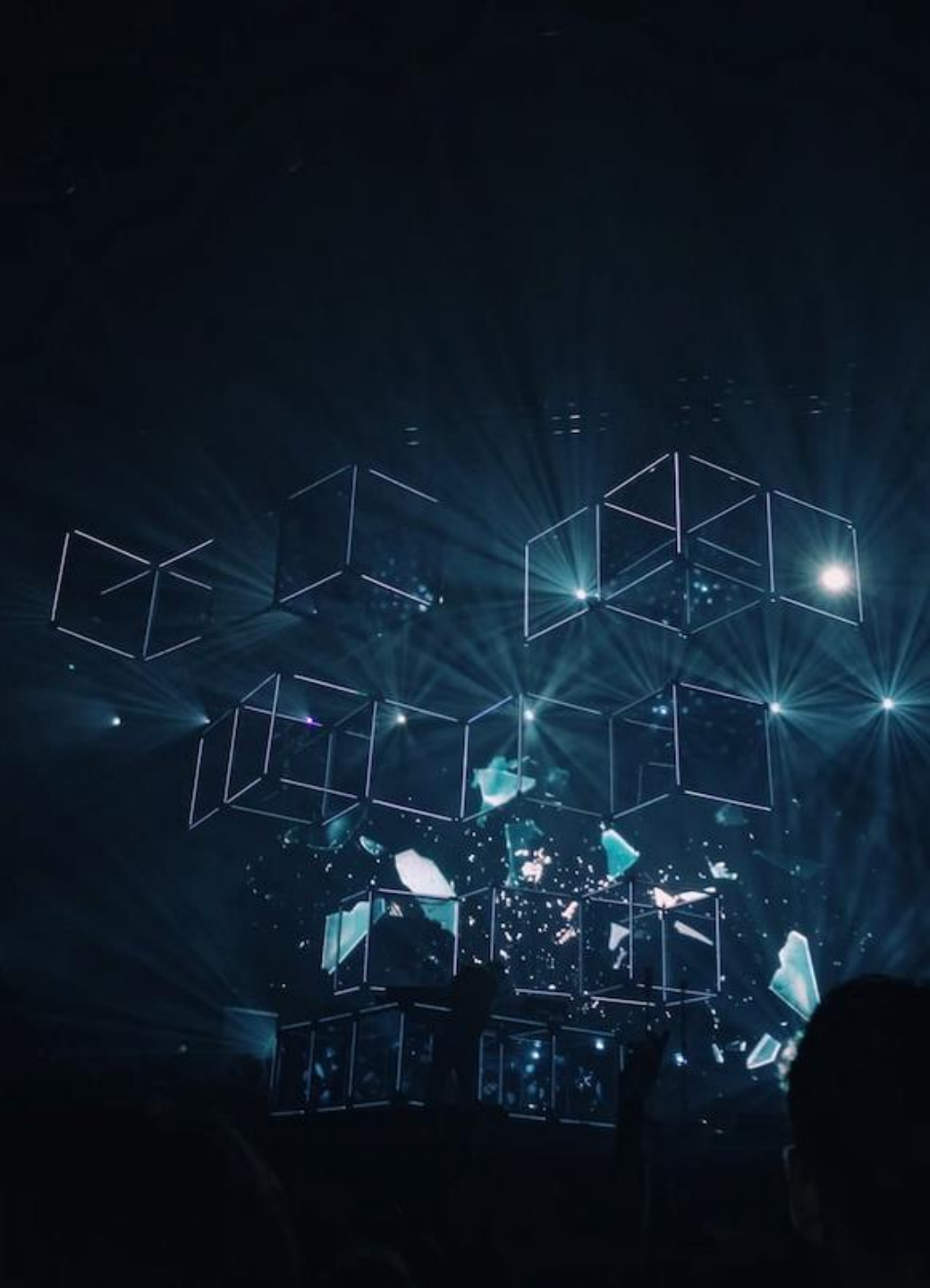| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| **Increase from 2023 to 2024** | **33%** | **55%** | **27%** | **31%** | **27%** | **19%** | **31%** | **26%** | **31%** | **30%** | **27%** | **28%** | **28%** | **22%** |
| 2022 -> Increase 2023 -> Increase 2024 | 20% | 46% | 17% | 18% | 14% | 13% | 18% | 15% | 18% | 20% | 20% | 19% | 20% | 18% |
| 2022 -> Same 2023 -> Increase 2024 | 4% | 5% | 3% | 3% | 3% | 3% | 4% | 3% | 4% | 3% | 3% | 4% | 1% | 4% |
| 2022 -> Decrease 2023 -> Increase 2024 | 9% | 4% | 7% | 10% | 10% | 4% | 10% | 8% | 9% | 8% | 4% | 5% | 6% | 0% |
| **No change** | **38%** | **22%** | **40%** | **50%** | **41%** | **35%** | **41%** | **40%** | **35%** | **31%** | **37%** | **40%** | **36%** | **23%** |
| 2022 -> Increase 2023 -> Same 2024 | 16% | 7% | 12% | 18% | 16% | 14% | 15% | 12% | 14% | 11% | 19% | 17% | 20% | 2% |
| 2022 -> Same 2023 -> Same 2024 | 16% | 7% | 20% | 23% | 16% | 17% | 16% | 20% | 17% | 14% | 15% | 21% | 12% | 20% |
| 2022 -> Decrease 2023 -> Same 2024 | 6% | 7% | 8% | 10% | 8% | 5% | 9% | 8% | 4% | 6% | 3% | 2% | 4% | 0% |
| **Decrease from 2023 to 2024** | **29%** | **24%** | **34%** | **19%** | **32%** | **46%** | **28%** | **34%** | **34%** | **39%** | **36%** | **32%** | **36%** | **55%** |
| 2022 -> Increase 2023 -> Decrease 2024 | 16% | 14% | 18% | 11% | 15% | 25% | 12% | 17% | 19% | 27% | 22% | 23% | 24% | 35% |
| 2022 -> Same 2023 -> Decrease 2024 | 3% | 5% | 5% | 1% | 5% | 9% | 4% | 5% | 4% | 4% | 5% | 4% | 5% | 20% |
| 2022 -> Decrease 2023 -> Decrease 2024 | 10% | 5% | 10% | 7% | 12% | 11% | 11% | 13% | 11% | 8% | 9% | 5% | 7% | 0% |

# Wether flock size: a 3-year perspective

As part of the May 2023 Sheep Producers Intentions Survey, producers were asked to look back and estimate what their wether flock was in 2022 as well as to look forward and forecast their wether flock size for 2024. This then provided 3 points in time – the 2022 flock size, the current 2023 flock size and the forecast flock size for 2024. An analysis of this data is shown below.

We asked producers to look back and estimate what their wether flock was in 2022

**MAY 2023**
Reported number of wethers on hand

We asked producers to look forward and forecast their wether flock in 2024

These diagrams represent the change from 2023 wether flock – looking back and then forecasting forward

Increase from 2022 to 2023 — 28%

No change — 49%

Decrease from 2022 to 2023 — 23%

Increase from 2023 to 2024 — 19%

No change — 53%

Decrease from 2023 to 2024 — 28%

# Wether flock size: a 3-year perspective

| | State | | | | | | Total Flock Size (sheep and lambs) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSW | QLD | SA | TAS | VIC | WA | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
| *Base:* | *646* | *68* | *291* | *77* | *470* | *405* | *454* | *305* | *393* | *211* | *272* | *214* | *86* | *23* |
| **Increase from 2022 to 2023** | **27%** | **31%** | **11%** | **11%** | **14%** | **19%** | **21%** | **16%** | **19%** | **23%** | **14%** | **18%** | **18%** | **33%** |
| 2021 -> Increase 2022 -> Increase 2023 | 9% | 13% | 3% | 1% | 6% | 5% | 6% | 6% | 6% | 10% | 7% | 8% | 9% | 11% |
| 2021 -> Same 2022 -> Increase 2023 | 4% | 2% | 1% | 2% | 2% | 4% | 3% | 2% | 3% | 3% | 1% | 3% | 3% | 4% |
| 2021 -> Decrease 2022 -> Increase 2023 | 13% | 16% | 7% | 7% | 6% | 9% | 12% | 8% | 9% | 10% | 6% | 7% | 6% | 18% |
| **No change** | **49%** | **55%** | **58%** | **64%** | **61%** | **36%** | **56%** | **56%** | **52%** | **47%** | **47%** | **45%** | **42%** | **50%** |
| 2021 -> Increase 2022 -> Same 2023 | 5% | 10% | 4% | 7% | 6% | 4% | 6% | 4% | 3% | 6% | 6% | 8% | 4% | 5% |
| 2021 -> Same 2022 -> Same 2023 | 38% | 37% | 46% | 55% | 48% | 29% | 42% | 48% | 45% | 38% | 39% | 30% | 38% | 45% |
| 2021 -> Decrease 2022 -> Same 2023 | 6% | 9% | 7% | 3% | 7% | 3% | 8% | 4% | 4% | 3% | 3% | 6% | 0% | 0% |
| **Decrease from 2022 to 2023** | **25%** | **14%** | **32%** | **24%** | **24%** | **45%** | **23%** | **28%** | **29%** | **30%** | **38%** | **38%** | **40%** | **16%** |
| 2021 -> Increase 2022 -> Decrease 2023 | 15% | 6% | 21% | 16% | 12% | 30% | 11% | 16% | 20% | 20% | 28% | 28% | 28% | 0% |
| 2021 -> Same 2022 -> Decrease 2023 | 4% | 5% | 3% | 0% | 6% | 5% | 6% | 4% | 3% | 3% | 4% | 5% | 3% | 9% |
| 2021 -> Decrease 2022 -> Decrease 2023 | 6% | 3% | 8% | 8% | 6% | 11% | 7% | 8% | 7% | 6% | 7% | 5% | 8% | 8% |

Focus area: factors impacting on-farm decision making

# factors impacting on-farm decision making:
# an overview of the feedback

A special focus topic included in the May Sheep Producer Intentions Survey were two open ended questions asking producers to identify and describe the factors that would impact their on-farm decisions.

The survey sought to understand two different factors sets – firstly the off farm external factors and secondly the on-farm factors (see actual questions opposite). A summary of these two questions follows.

From the feedback we would note that:



Q22. What off-farm external factors, other than prices (for wool, lambs and sheep meat), are likely to have the most impact on your on-farm decision making over the next 6 months?
Base: All respondents who provided a response, n = 1,417

Q23. What on-farm factors are likely to have the most impact on your on-farm decision making over the next 6 months?
Base: All respondents who provided a response, n = 1,443

*We first note that there was no single factor that dominated the response from producers. This means that there are likely to be a range of off farm external influences that will shape the decision making on farm. This is likely to vary by region and by farm size.*

*That said, there were five off farm external factors that producers identified as likely to have a significant influence on their on-farm decisions:*

o *Weather – articulated in various forms including too much or too little rainfall, the potential change in seasons (early, later and nature), the possibilities of natural events influencing their decision making (fires, droughts and floods).*

o *Input costs – of fertiliser, feed, drench, chemicals and importantly the day-to-day expenses like fuel and maintenance supplies (ie fencing).*

o *Workforce – both from the perspective of supply and availability and also the costs. Reference during the survey was made to both shears and other non-shearing farm labour.*

o *Business factors including the impact of rising interest rates.*

o *Regulation – the impact of government decisions and specific mention of the upcoming legislative change to live shipping of sheep.*

# factors impacting on-farm decision making:
# an overview of the feedback
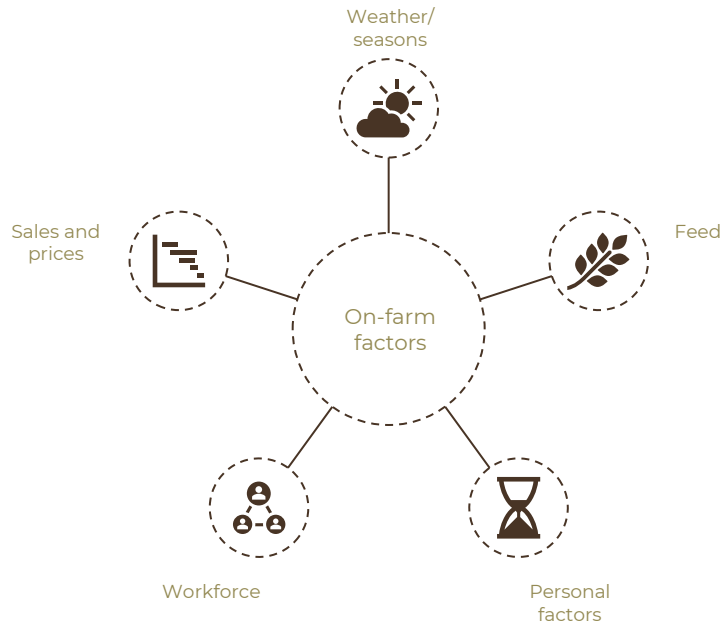
*Again, we note that there was no single factor that dominated the response from producers.*

*That said, there were five on farm external factors that producers identified as likely to have a significant influence on their on-farm decisions:*

o   *Weather – interestingly producers identified weather as both off-farm and on-farm factors. It clearly signals the top of mind focus on weather (in its various reportable categories).*

o   *Feed – some producers identified the supply of and access to feed for the immediate future was likely to present a key influence on their decision making.*

o   *Workforce – both the supply, access  and availability but also the costs.  Reference during the survey was made to both shears and other non-shearing farm labour.*

o   *Sales and prices – for some producers the price and ease of selling available stock into the market were seen as key influences on their planning and decision making.*

o   *Personal factors – there was a recognition form some producers that their age, health, ambition to achieve more balance, family factors and decisions on the future of the farm were all active influences on their forward planning.*

# Off-farm external factors impacting on-farm decision making

Q22. What off-farm external factors, other than prices (for wool, lambs and sheep meat), are likely to have the most impact on your on-farm decision making over the next 6 months?
Base: All respondents who provided a response, n = 1,417

*Some of what they said…*

**31% - Weather / seasonal conditions**
- 17% - Weather (NFI)
- 8% - Amount of rainfall
- 4% - Seasonal conditions (NFI)
- 3% - Climate / climate change (NFI)
- 1% - Drought

**18% - Input costs**
- 7% - Input costs (NFI)
- 5% - Cost of farm supplies
- 4% - Feed costs
- 3% - Fertiliser costs
- 1% - Cost of production
- 1% - Cost of drench
- 1% - Cost of chemicals

**16% - Business factors**
- 14% - Interest rates
- 2% - Cash flow
- 1% - Access to more land / land prices

**13% - Other factors**
- 5% - Govt policy/intervention (NFI)
- 5% - Live export trade/ban
- 2% - Space at abattoirs / other abattoir issues

**12% - Labour**
- 6% - Shortage / availability of shearers
- 5% - Shortage of / access to / availability of labour
- 2% - Cost of shearers
- 1% - Labour costs

**8% - Personal circumstances**
- 2% - Age
- 2% - Health
- 2% - Scaling back
- 1% - Family factors
- 1% - Change in direction

**5% - Sheep sales**
- 1% - Lamb prices
- 1% - Ability to sell sheep
- 1% - Wool prices
- 1% - Sheep prices

**4% - Markets**
- 2% - Markets (NFI)
- 1% - Global instability/war

*"There are lots of things - consumer decisions and choices, the unseen or uncontrollable global factors; war, pandemic, poor EU policy, WEF interference, carbon policies, ESG factors etc. Then there are the processor decisions and influence. Not to mention supply, sales avenues and methods: removal of weight scales, increased levies and taxes. Increased costs for inputs ( doubled during covid ) and continue rising."*

*"How the season shapes up in different states will dictate what to do with store lambs. Either finish or if grain prices great will sell grain and stores. Will also depend on if abattoirs can keep up with expected kill numbers (given work visas for foreign workers have been largely revoked). Will try and avoid when other people are selling."*

*"just had a lease block but I don't have a lot of faith unless something improves dramatically. For us live exports - that's the main problem and I would like to see more support for us farmers. I am also conscious of my wife's ability to make money she has a lot better paying job than me and then the practical stuff like children - someone has to look after the kids"*

*"I don't know if there is much else besides the climate and the weather. I guess a lot depends on what the market is doing and really it just depends on the pricing. Then there is the cost of shearers and the lack of shearers as well//"*

*"The decision to not live export The demand to be carbon neutral by 2030. The increase price of input costs The high demand for surrounding farmland due to tree companies purchasing for biomass and blue gums and mining companies buying for carbon credits, therefore no room to expand Weather -"*

*"Breed longevity. Finding whilst rams are now being bred to gain weight faster, they aren't lasting as long as in the past. Maybe just coincidence but my father and I purchase rams from the same place and find the same issue. Also looking at going to a different breed more suited to our area."*

*"Federal government decision to ban live exports. Already having to carry more stock for longer due to difficulty selling - this is the main reason for our increased numbers. Will likely have to either increase proportion mated to cross bred or decrease total sheep numbers. Or both."*

*"Shearers , holding grazers to ransom by increasing prices mid shearing and crutching. Plus, total disrespectful to quarters and wool equipment. We have had enough this is our last shearing after 101 years all our merino sheep will be sold. Because of shearing teams."*

*"Obviously interest rates are making a big difference to our decisions."*

*"Input costs have gone through the roof. Well, you have to be careful what you're doing for example not drenching when you shouldn't. You just being more cautious because the costs have skyrocketed"*

Results shown if mentioned by at least 1% of respondents.
Results are provided unweighted and are a subjective coding of the open-ended questions.

# On-farm factors impacting on-farm decision making

Q23. What <u>on-farm factors</u> are likely to have the most impact on your on-farm decision making over the next 6 months?
Base: All respondents who provided a response, n = 1,443

**50% - Weather / seasonal conditions**
- 21% - Weather (NFI)
- 17% - Amount of rainfall
- 10% - Seasonal conditions (NFI)
- 2% - Drought
- 2% - Climate / climate change (NFI)

**16% - Feed**
- 7% - Access/availability of feed
- 3% - Feed NFI
- 3% - Amount of feed / production
- 2% - Pasture growth
- 1% - Availability of water

**11% - Labour**
- 6% - Shortage of / access to / availability of labour
- 3% - Shortage / availability of shearers
- 1% - Labour (NFI)
- 1% - Cost of shearers

**10% - Sheep sales & prices**
- 4% - Price (NFI)
- 2% - Lamb prices
- 2% - Wool prices
- 1% - Ability to sell sheep
- 1% - Commodity prices
- 1% - Sheep prices
- 1% - Beef prices

**9% - Personal circumstances**
- 2% - Change in direction
- 2% - Health
- 2% - Workload / scaling back
- 1% - Age
- 1% - Family factors
- 1% - Time

**7% - Input costs**
- 3% - Input costs (NFI)
- 2% - Fertiliser costs
- 2% - Cost of farm supplies
- 1% - Feed costs

**5% - Business factors**
- 1% - Interest rates
- 1% - Cash flow
- 1% - Margins / profitability
- 1% - Access to more land / land prices
- 1% - Other business factors

**5% - Other factors**
- 2% - Insects / pests / parasites
- 1% - Feral animals

**4% - Fertility**
- 2% - Herd health
- 2% - Lambing %

**1% - Markets**
- 2% - Markets (NFI)
- 1% - Global instability/war

*Some of what they said…*

*"oh well you know its always the same thing its will always be weather."*

*"The availability of labor is quite a big one. I'm still looking for someone else to help us on the farm here. That said, it really gets back to the seasons, rainfall so critical to the amount of grass you've got."*

*"Depends which way the weather pans out. The weather the forecasters have got it right or not – the potential to reduce rainfall so that might be the biggest on farm factor and of course prices for our surplus stock whether that be in the fat market or store market"*

*"a lot to do with the weather mate. The weather is the main one – it might be getting dry again, so preparation is the biggest thing with all of it. I mean I've got plenty of reserve feed on hand if it does get dry but got to be so careful about what you do if you're buying machinery and that"*

*"Trying to get shearers when one wants to shear, having to wait 3 months and be on standby all that time. Getting crutching done is a joke, we do it ourselves. With small numbers the cost of animal health requirements is against us. Love growing wool but the inputs make it a challenge"*

*"Feed availability as we are carrying 250 x wethers more than I would like. Typically, I would have sold them as lambs. Drench withholding periods due to increased worm pressure has meant that the lambs were unsaleable at the time, and poor mutton prices have proven to be very costly."*

*"Just rainfall typical. Just rainfall and what the cropping side of the business side of thing wants to do"*
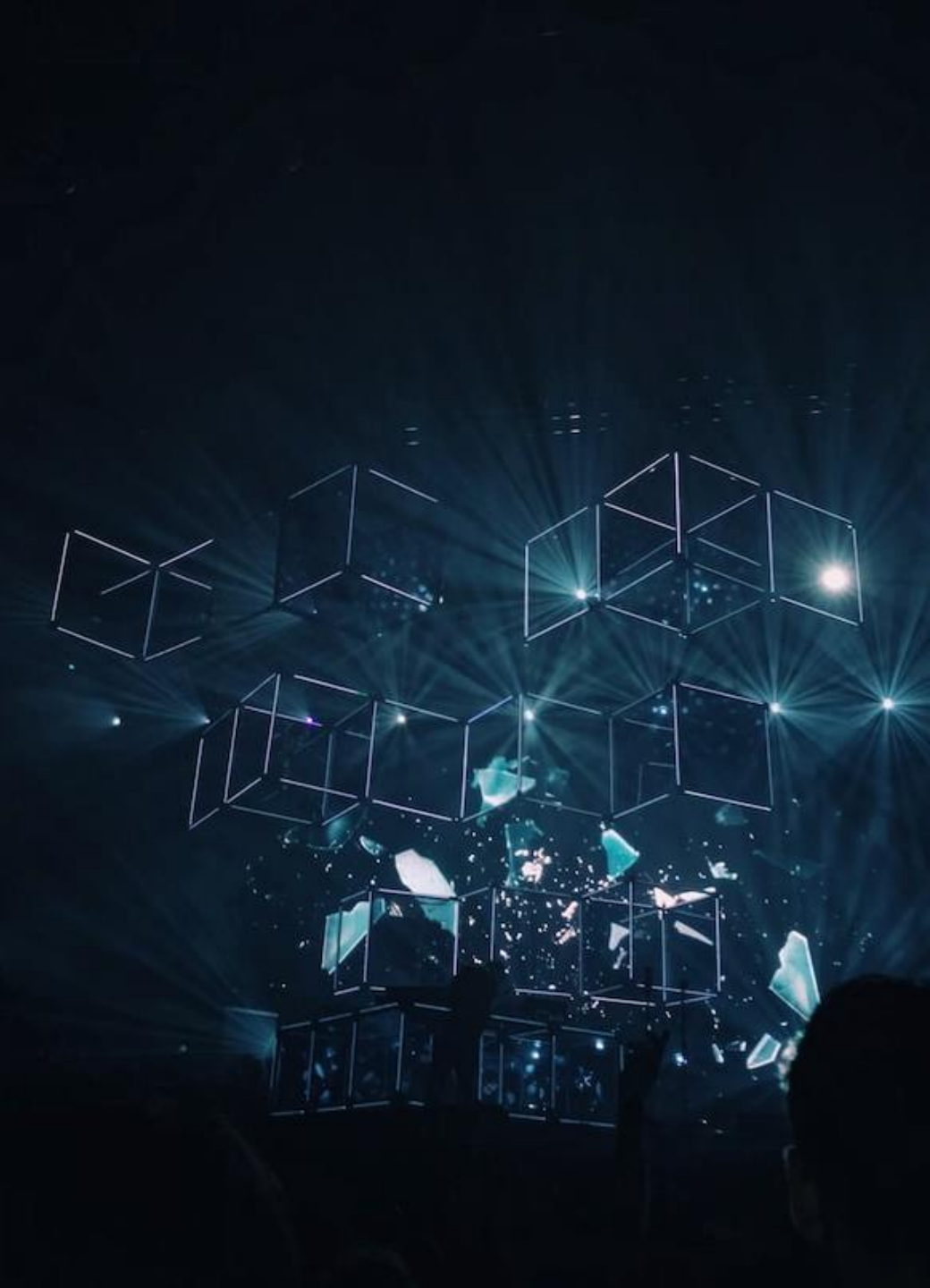
*"Concerned about predictions for Elnino- drying seasons and potentially drought in years to come. Difficulty accessing casual workers to get jobs done."*

*"All seasonal dependent. If i can't get shearers will sell xb lambs in wool prior to fly wave and risk of grass seeds. If too wet, sell cattle and bale hay. Too dry graze some crops depending on economic analyses of grains future vs grazing vs selling sheep."*

*"the seasons are the biggest thing."*

*"Rain/weather and costs/fertilizers especially and animal health products/and seed/fuel anything you want to name costs are going through the roof. Ultimately it depends how much rain and which way the costs are going and the best way around all that to save costs"*
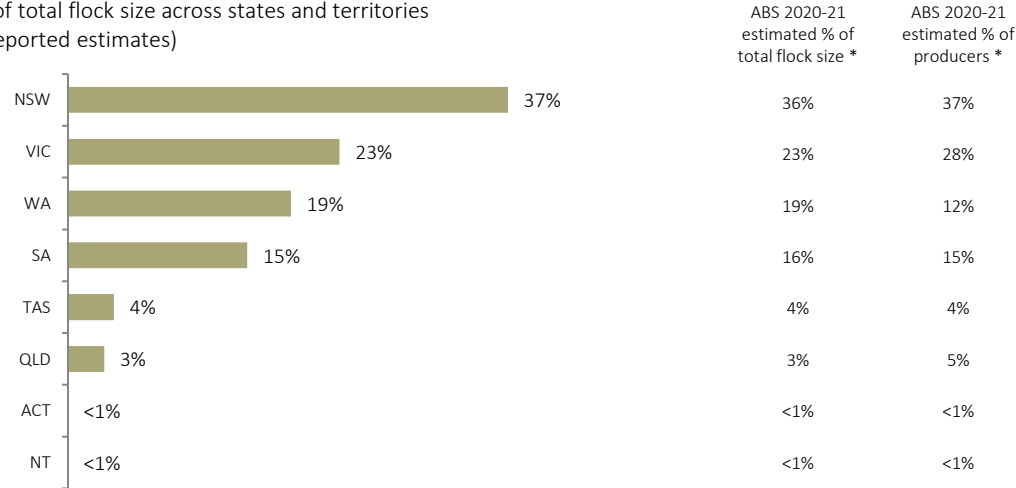
*"Being able to continue to access shearers , and how much the cost of shearing and shed staff is going to increase. Quality of shearing and shed staff has gone downhill while the costs have escalated, this is unsustainable,"*
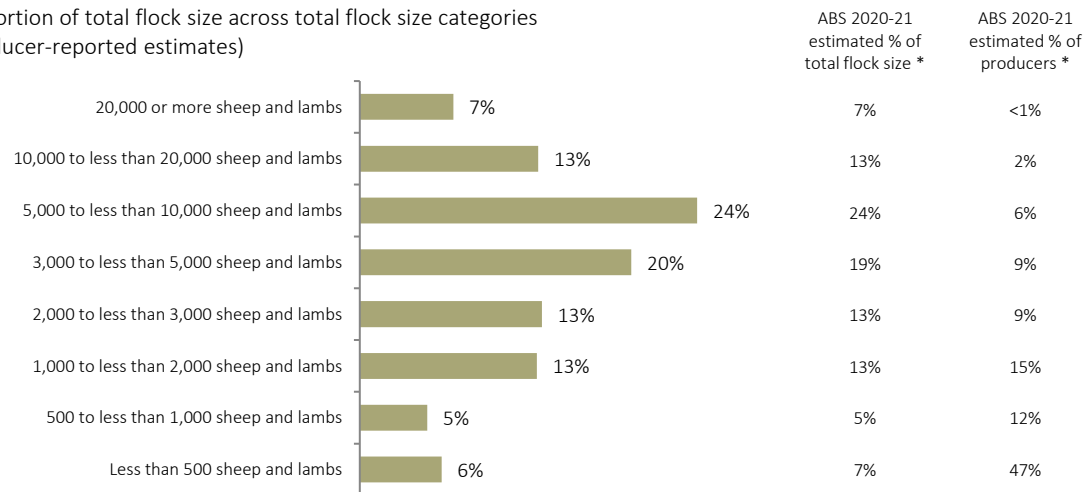
Results shown if mentioned by at least 1% of respondents.
Results are provided unweighted and are a subjective coding of the open-ended questions.

Attachments

# Estimates of total flock size

Proportion of total flock size across states and territories
(Producer-reported estimates)

| State/Territory | Producer-reported estimates | ABS 2020-21 estimated % of total flock size * | ABS 2020-21 estimated % of producers * |
|---|---|---|---|
| NSW | 37% | 36% | 37% |
| VIC | 23% | 23% | 28% |
| WA | 19% | 19% | 12% |
| SA | 15% | 16% | 15% |
| TAS | 4% | 4% | 4% |
| QLD | 3% | 3% | 5% |
| ACT | <1% | <1% | <1% |
| NT | <1% | <1% | <1% |

Proportion of total flock size across total flock size categories
(Producer-reported estimates)

| Category | Producer-reported estimates | ABS 2020-21 estimated % of total flock size * | ABS 2020-21 estimated % of producers * |
|---|---|---|---|
| 20,000 or more sheep and lambs | 7% | 7% | <1% |
| 10,000 to less than 20,000 sheep and lambs | 13% | 13% | 2% |
| 5,000 to less than 10,000 sheep and lambs | 24% | 24% | 6% |
| 3,000 to less than 5,000 sheep and lambs | 20% | 19% | 9% |
| 2,000 to less than 3,000 sheep and lambs | 13% | 13% | 9% |
| 1,000 to less than 2,000 sheep and lambs | 13% | 13% | 15% |
| 500 to less than 1,000 sheep and lambs | 5% | 5% | 12% |
| Less than 500 sheep and lambs | 6% | 7% | 47% |

* Includes adjustment for very small producers due to ABS data not collected for those with Estimated Value of Agricultural Operations (EVAO) under $40,000.

# Survey definitions

There were several definitions and specifications provided to producers in the survey. An outline of the key definitions used in the survey are provided below.

## Flock Categories

| | |
|---|---|
| Breeding ewes | Breeding ewes (including ewe lambs and hoggets intended for breeding). |
| Lambs | Lambs (not including ewe lambs and hoggets intended for breeding). |

## Sheep Breeds (breeding ewes and wethers)

| | |
|---|---|
| Merino | Main breed of sheep for wool production. |
| First cross | Merino crossed with a long-haired sheep of a different breed. |
| Shedding | Breeds of sheep that shed their wool without shearing e.g. Australian White or Dorper. Could also be referred to as hair sheep. |
| Prime lamb | Animal entirely focused on meat (lamb) production e.g. Composite, Terminal, Suffolk or Dorset. |
| Dual purpose | Animal with no more than 50% Merino content geared towards both meat and wool production equally. |
| Other | Any breeds that do not fit into the definitions above. |

## Sheep Breeds (rams)

| | |
|---|---|
| Merino | Main breed of sheep for wool production. Mainly used to provide pure-bred Merino lambs. |
| Poll Dorset | Short wool, meat producing sheep and is Australia's No.1 terminal sire in the prime lamb industry. |
| Maternal composite | Examples are Prime Line maternals, White Suffolk, East Friesian, etc. |
| Shedding | Examples are Dorpers, Ultrawhites, Aussie Whites and other derivatives of shedding type breeds. |
| Other | Any breeds that do not fit into the definitions above. |

# Research design

**Survey Program**

The Sheep Producers Intentions Survey, undertaken by MLA and AWI, is used to help industry determine wool and lamb production forecasts, and to understand the breed composition of the Australian flock on a national, state and regional basis. The results are used by processors for budgeting purposes and allows import markets to ascertain short-term supply estimates.

**Methodology**

The May 2023 survey used a mixed-method approach. Producers with email contact details were provided with the opportunity to respond to an online survey invitation. After 2 reminders, phone surveys were used as the method to 'top up' the final sample of respondents.

**Sample lists**

A list of producers was provided by MLA and AWI separately, These lists were merged, de-duped and producers who had requested not to be contacted for market research removed.

**Questionnaire**

A 10-minute questionnaire was used to collected the required information. The survey questionnaire covered, amongst others, the following topic areas:

o    Producer sentiment – on the wool sector and on the sheepmeat sector;
o    Flock size estimates (flock estimates included breeding ewes, wethers and lambs)
o    Breeding ewe, wether and ram flock profiles
o    Producer intentions (for their breeding ewe flock and wether flock)

**Sample size**

A total of n = 1,958 responses were provided by producers as follows:

| | Overall | ACT | NSW | NT | QLD | SA | TAS | VIC | WA |
|---|---|---|---|---|---|---|---|---|---|
| # of surveys | **n = 1,958** | n = 1 | n = 646 | n = 0 | n = 68 | n = 291 | n = 77 | n = 470 | n = 405 |

**Timing**

The interviewing was undertaken between the 27th April – 23rd May 2023.

**Weighting**

The survey results were weighted. A description of the weighting process used for the May 2023 Sheep 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 Sheep 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:

o   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 – obviously, the larger businesses have larger flocks so ensuring we have an appropriate mix of small, medium, large and very large producers is vital for the estimation process.

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

For this survey, ABS data was used as the population structure that guided the weighting approach. Data at a state and flock size segment was requested from the ABS. This data and its source are shown opposite.  The weighting approach involved:

o   Using the estimate of the total number of agricultural businesses with sheep and lambs produced by the ABS as the population estimates.

o   Adjust this number to reflect that the ABS survey does not include estimates of producers with an EVAO (Estimated Value of Agricultural Operations) of less than $40,000. This adjustment is made using the proportional difference between estimates provided by the ABS in 2014-15 of businesses with an EVAO of $40,000 and above (The current standard for the Agricultural Census), and businesses with an EVAO of $5,000 and above (the standard before the 2014-15 Agricultural Census). This proportional difference is applied to the lowest flock size category (less than 500 sheep and lambs) at the state level.

This final weighting matrix was then used to weight the May 2023 Sheep Producers Intentions survey data.

Total number of agricultural businesses with sheep and lambs (ABS 2020-21) *

|  | ALL FLOCK SIZES | Less than 500 | 500 – < 1,000 | 1,000 – < 2,000 | 2,000 – < 3,000 | 3,000 – < 5,000 | 5,000 – < 10,000 | 10,000 – < 20,000 | 20,000 or more |
|---|---|---|---|---|---|---|---|---|---|
| **AUSTRALIA** | **40,949** | 19,200 | 4,813 | 6,197 | 3,787 | 3,573 | 2,513 | 709 | 157 |
| NSW | 14,981 | 6,768 | 1,876 | 2,414 | 1,431 | 1,341 | 851 | 239 | 61 |
| VIC | 11,445 | 6,067 | 1,390 | 1,561 | 963 | 766 | 539 | 127 | 30 |
| QLD | 1,881 | 1,350 | 93 | 124 | 85 | 97 | 96 | 29 | 7 |
| SA | 5,980 | 2,305 | 829 | 1,192 | 627 | 556 | 346 | 102 | 24 |
| WA | 5,107 | 1,736 | 473 | 770 | 611 | 735 | 590 | 171 | 20 |
| TAS | 1,522 | 950 | 148 | 135 | 70 | 76 | 90 | 40 | 15 |
| NT | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ACT | 32 | 23 | 4 | 1 | 0 | 1 | 1 | 1 | 0 |

* Based on Australian Bureau of Statistics data (ABS, Customised report, 2022)

# 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:

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

where *n* is the sample size, p̂ is the fraction of responses that you are interested in, and *z* is the [critical value](#) for the 95% confidence level (in this case, 1.96).

This calculation is based on the [Normal distribution](#) and assumes you have more than about 30 samples.

| Margin of Error for a given sample size and survey estimate | Sample Size |
|---|---|
| | **1,958** (total surveys completed) |
| 10% | ± 1.33% |
| 20% | ± 1.77% |
| 30% | ± 2.03% |
| 40% | ± 2.17% |
| 50% | ± 2.21% |
| 60% | ± 2.17% |
| 70% | ± 2.03% |
| 80% | ± 1.77% |
| 90% | ± 1.33% |

(Survey Estimate)

| | Estimated Population | Sample Size | Margin of Error (assuming max survey estimate of 50%) |
|---|---|---|---|
| **Australia** | **40,949** | **1,958** | **± 2.21%** |
| NSW | 14,981 | 646 | ± 3.86% |
| VIC | 11,445 | 470 | ± 4.52% |
| QLD | 1,881 | 68 | ± 11.88% |
| SA | 5,980 | 291 | ± 5.74% |
| WA | 5,107 | 405 | ± 4.67% |
| TAS | 1,522 | 77 | ± 10.89% |
| NT | 1 | 0 | n/a |
| ACT | 32 | 1 | n/a |

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 (np̂ < 10 or n(1-p̂) < 10).<

Sheep Producers Intentions Survey

MAY 2023

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## May 2023

This research was conducted by Intuitive Solutions on behalf of MLA and AWI. For more information, please contact:

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