MLA and AWI Wool and Sheepmeat Survey Report - Sheepmeat

June, 2018

Prepared by Kynetec

Contents

Executive Summary – Lamb Production

Number of breeding ewes on hand

42,846,414 total breeding ewes on hand
31,847,066 Merino breeding ewe flock, 74% of total breeding flock
10,999,349 total non-Merino breeding ewes on hand, 25% of total breeding flock
Within the Merino flock, 55% for Merino lamb production and 45% for other lamb production

Ewe flock intentions for next 12 months

25% increase
62% maintain
13% decrease

Intended method for achieving ewe flock increase

23% Retain more older ewes than normal
40% Retain more replacement ewes than normal
21% Purchase more additional ewes than normal

Number of lambs on hand

20,791,149 total lambs on hand
13,740,341 total Pure bred Merino lambs, 66% of total lamb flock
7,050,808 total non-Merino lambs, 34% of total lamb flock

Expected lamb sales in the next four months (1 Jul – 31 Oct)

6,250,791 total lamb sales in the next four months
1,447,919 total Pure meat sales (23% of total lamb sales)
1,643,219 total First cross sales (26% of total lamb sales)
2,464,878 total Merino sales (39% of total lamb sales)
694,775 total other breed sales (11% of total lamb sales)

Number of lambs marked in the past four months (1 Mar – 30 Jun)

7,124,790 total lambs marked in the past four months
3,662,220 total Merino lambs marked (51% of total markings)
3,462,570 total non-Merino lambs marked (49% of total markings)

Number of ewes joined to produce those lambs

7,915,606 total number of ewes joined to produce those lambs
4,361,347 total Merino lambs joined (55%)
3,554,258 total non-Merino lambs joined (45%)

Marking rates

84% National Merino marking rate
97% National non-Merino marking rate

Background and Purpose

Survey Background

The current Sheepmeat and Wool survey has been running in various formats for the past 17 years. The survey has been running in its current format since June 2010, following discussions with MLA's Lamb Forecasting Advisory Committee (LFAC), where MLA decided that they needed to use a more vigorous methodology going forward.
Due to the success of the survey in June, a management agreement between MLA and AWI was negotiated and AWI signed on for the next wave in October 2010.
Since October 2010, MLA, AWI and the LFAC have worked closely to further develop the model, sample and breed code frame for the now combined Sheepmeat and Wool survey.
Kynetec took over from Axiom in October 2016 and have been working closely with MLA and AWI to increase the number of respondents and the amount of data collected by streamlining the online and mail-out surveys.

Purpose of the research

The project provides MLA and AWI with an accurate representation of flock population, demographics, sheep meat and wool supply information and producer production intentions during key production periods throughout the year.
The survey enables MLA and AWI to provide the Lamb Forecasting Advisory Committee (LFAC) and the Australian Wool Production Forecasting Committee (AWPFC), with solid forward looking information to assist industry projections.
Although information gathered has been extremely useful in flock and production forecasts, MLA and AWI are looking to add further value to the study by increasing responses, better aligning the sample collected with industry production structure and making better use of the results in various internal and external publications.

Methodology [1/3]

Sampling

The MLA and AWI Wool and Sheepmeat survey for June 2018 was built around the collection of an industry representative sample of sheep producers across all sheep growing regions of Australia. In order to achieve a representative sample, sheep producers were sampled with strong representation within each MLA defined sheep production region. A total number of 1,675 survey responses were achieved in June 2018, down from the 2,036 surveys in February 2018 due to a one off change to the type of incentive offered. Given many large producers have multiple properties in different states and their possible impact on weighting, we reported the results based on number of properties rather than respondents. As a result, 3,364 properties were included in the survey.

Data Collection

Three survey methodologies were adopted in order to collect the target sample:

1. **Online web based survey:** This methodology was presented to potential respondents using two different communication tools (email survey links and website survey links).
   - I. *Website survey links:* Two survey links were given to MLA and AWI to place on their website and to include in selected external communications with producer stakeholders e.g. Friday Feedback and Feedback magazine. Copies of these links were also sent to members of the Lamb Forecasting Advisory Committee (LFAC) to include in their email signatures and place on their websites during June. A total of 43 respondents completed the survey via this method (3% of the total sample).
   - II. *Email survey links:* A link to the survey was created for email purposes so Kynetec could track the number of completes and partial completes throughout the survey period (1 to 30 June 2018) and send reminder emails accordingly. A total of 17,304 emails were sent to MLA and AWI members via the email addresses provided by MLA and AWI databases. Of those 5,420 emails bounced, giving a total emails delivered of 11,884. A total of seven reminder emails were sent to non-respondents with a significant number of completes achieved after each reminder. The email survey link returned a total of 969 completed responses (58% of the sample).

2. **Mail-out survey:** A hard copy questionnaire and a reply paid envelope was sent to a random sample of 5,000 producers from the FARM database (Fairfax Agricultural Research and Marketing). This methodology was supported by CATI reminder calls to producers in specific regions (Tasmania, Murrumbidgee and western NSW) in order to boost response rates. A total of 644 producers responded by this methodology (38% of total sample).

3. **Telephone surveys:** In an attempt to boost the sample of very large sheepmeat and wool producers for the study, approximately 100 calls were made to MLA's top 50 sheep levy payers in order to do the survey over the phone. As a result of telephone calls an the online survey, a total of 19 very large producers were included in the survey (Ewe flock size >20,000 hd).

MEAT & LIVESTOCK AUSTRALIA

Methodology [2/3]

Weighting

This is the third survey using the new ABS Census 2015-16 data to estimate the number of flock types and other variables by state, MLA Reporting Region and MLA region by weighting the number of respondents to the ABS producer population. There were a number of changes in this wave however to improve estimation by better weighting procedures:

1. Breeding ewe and lamb estimates were again developed by weighting the number of respondents (by state) to the number of farm businesses with breeding ewes. Wether estimates however were developed by weighting to the number of total farm businesses with sheep and lambs. In the past, the number of breeding ewe businesses was used for all weighting. This change had the affect of increasing the estimate of wether numbers from those estimated in 2017.

2. As with October 2017 and February 2018 surveys, the ABS population of producers used for weighting the June 2018 survey was adjusted to account for the significant number of smaller producers (flock sizes of less than 250 head) that were excluded from the census due to the $40,000 EVAO cutoff. In this wave however, a more refined EVAO adjustment was applied based on feedback from AWI. This had the effect of slightly reducing the overall number of breeding ewe producers used in the weighting process. A comparison of the adjusted population used for the last two waves and the newly adjusted population for this wave is below:

State	Breeding Ewe Producers used for Jun and Oct 2017	Breeding Ewe Producers used for Feb and June 2018
Australia	36,604	35,947
New South Wales/ACT	13,801	13,725
Victoria	9,048	9,173
Queensland	1,538	1,410
South Australia	5,826	5,414
Western Australia	5,197	4,906
Tasmania	1,194	1,318

June 2018 survey results were weighted to both the previous and the new breeding ewe producer population. We will continue to run comparisons with future waves to monitor any differences.

Methodology [3/3]

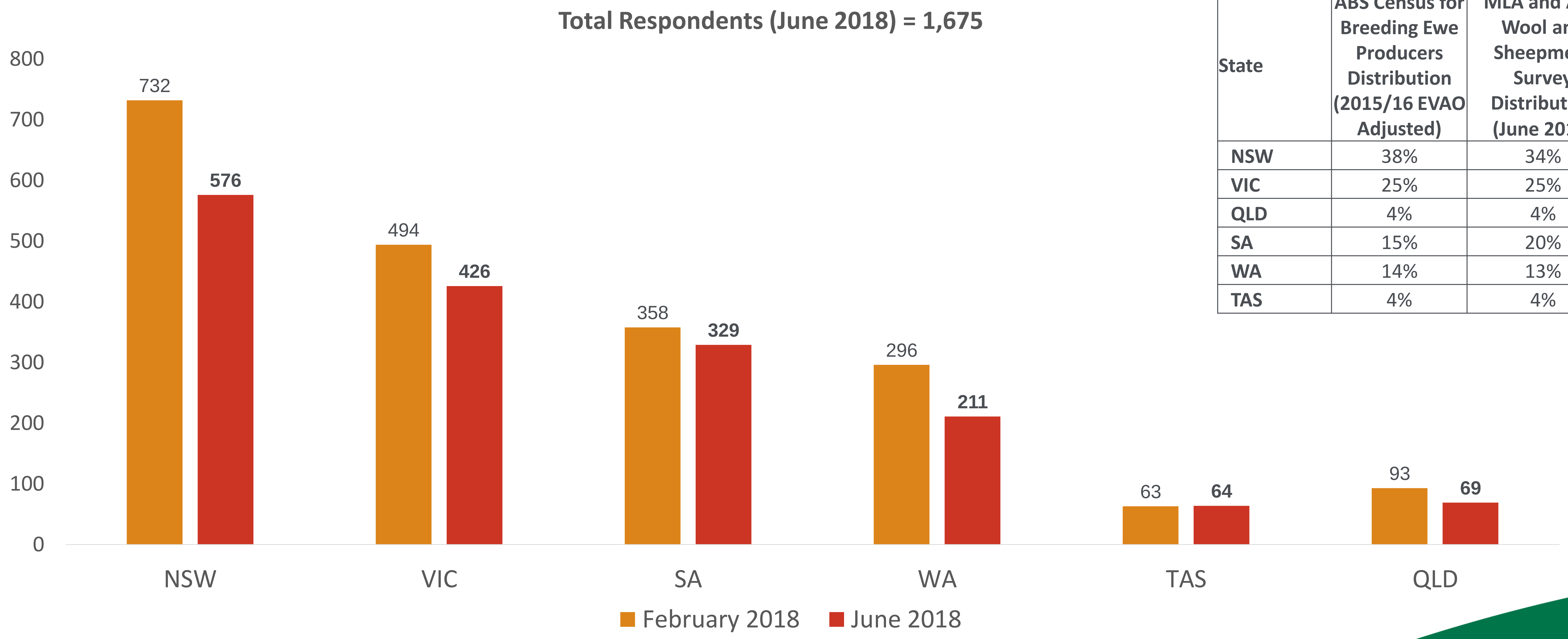
Statistical significance

The total research sample of 1,675 will give the results of this study a margin of error of ± 2.39% at a 95% confidence level based on 35,947 breeding ewe producers in Australia (ABS 2015-16 Census adjusted for $40,000 EVOA cutoff). This is basically saying that if you conducted the same survey 100 times, 95 out of the 100 sheep producers should yield results within ± 2.39% of the published number or percentage. However, the % of error increases as the sample size decreases (e.g. at the state and regional level).

- New South Wales ± 4.09%
- Victoria ± 4.71%
- Queensland ± 11.73%
- South Australia ± 5.35%
- Western Australia ± 6.83%
- Tasmania ± 12.18%

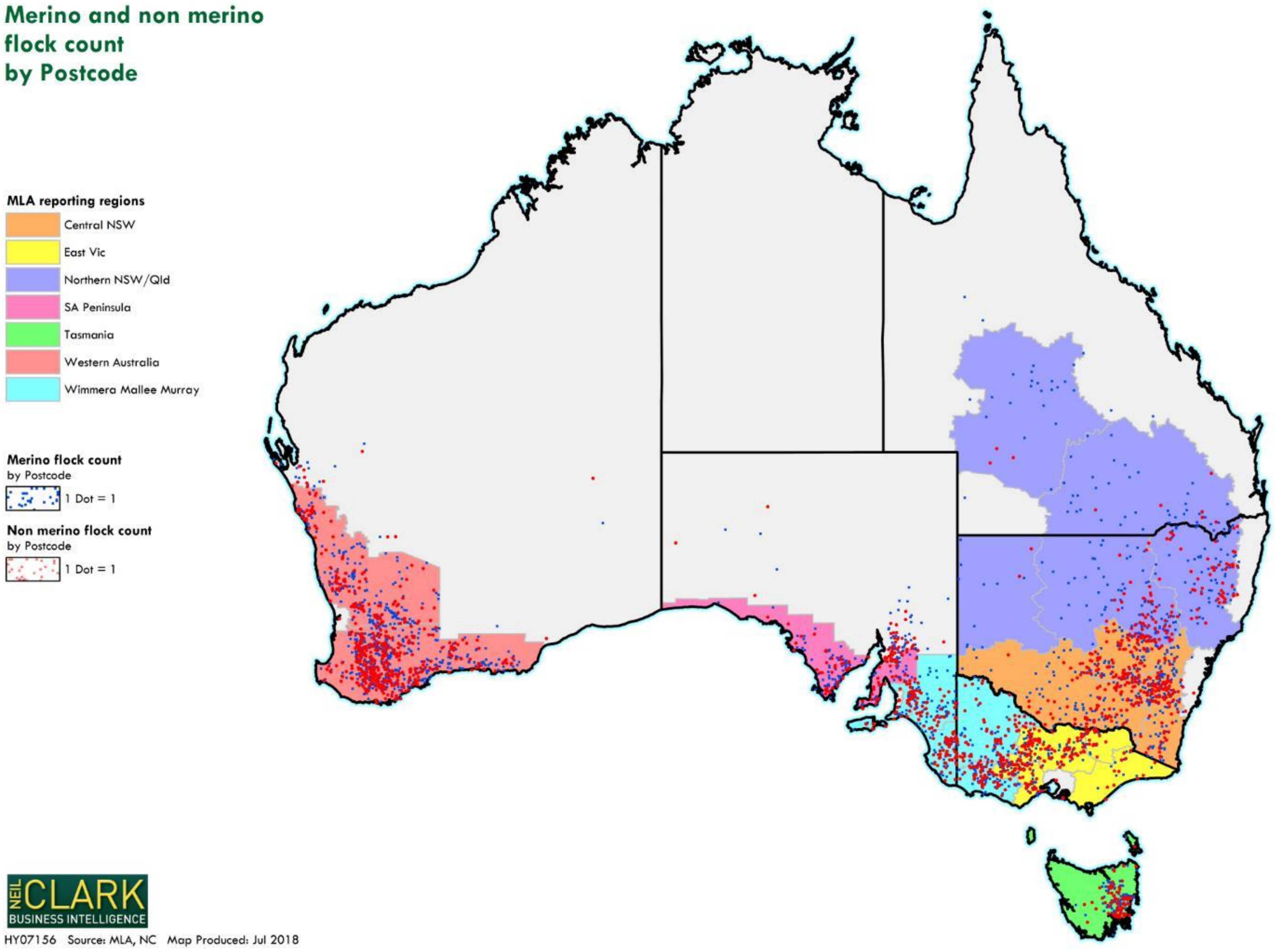
Survey Respondents [1/4]: By State

The total number of respondents (n=1,675) represented national industry distribution of breeding sheep producers (31,136 as reported in the ABS Census 2015-16 with an adjustment to 35,947 for the new EVAO cutoff of $40,000), with the proportion of respondents in each state being similar to that of the Census producer distribution. The ABS perform a substantial yearly survey of 35,000 agricultural businesses between Census years in order to continually track agricultural production and producer population. Although it is a survey, it is still indicative of the industry structure and sheep producer distribution and will be used to update state sampling structures in future surveys.



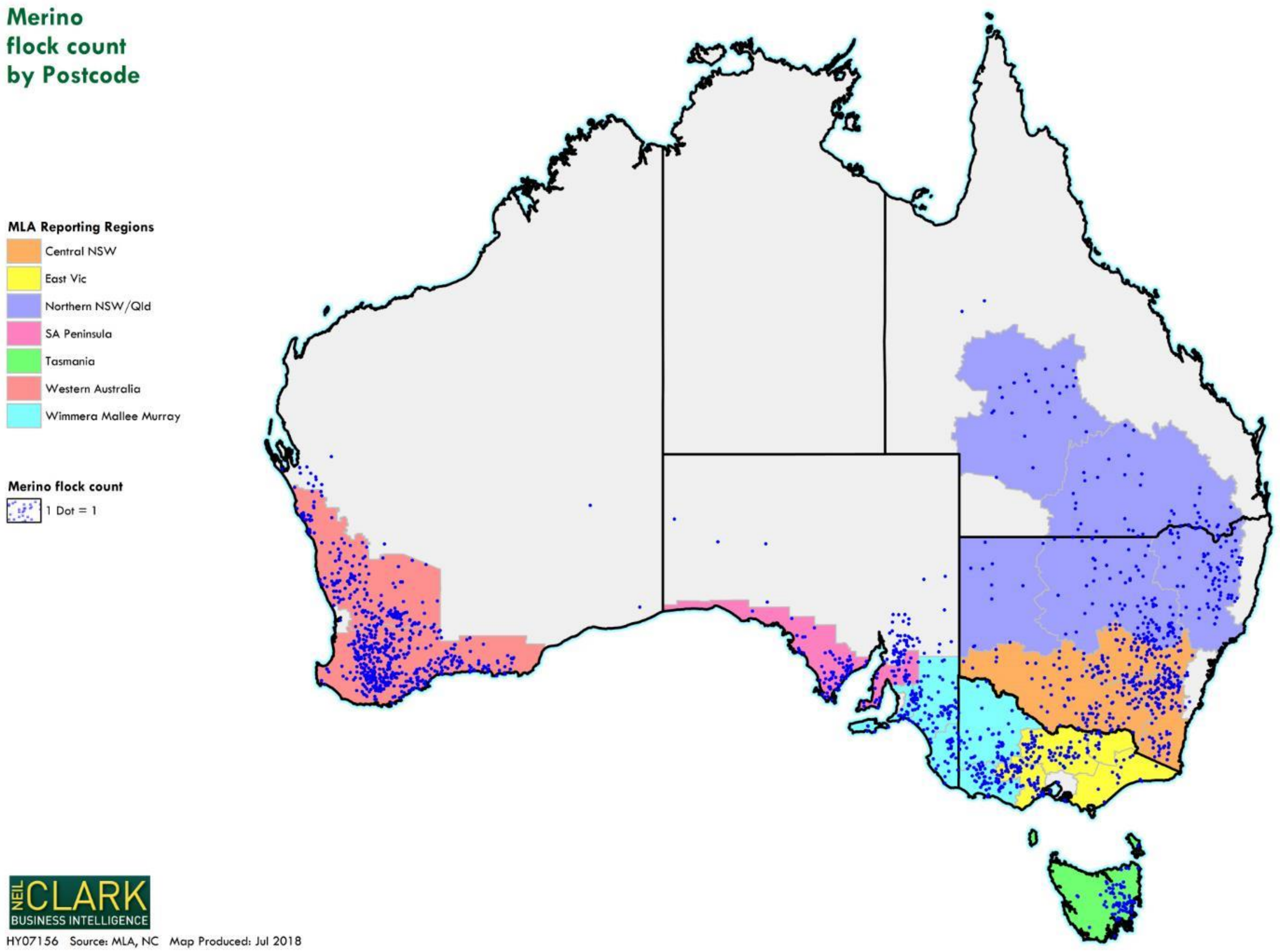
State	ABS Census for Breeding Ewe Producers Distribution (2015/16 EVAO Adjusted)	MLA and AWI Wool and Sheepmeat Survey Distribution (June 2018)
NSW	38%	34%
VIC	25%	25%
QLD	4%	4%
SA	15%	20%
WA	14%	13%
TAS	4%	4%

Survey Respondents [2/4]: Total Flock Counts (Merino & Non-Merino)



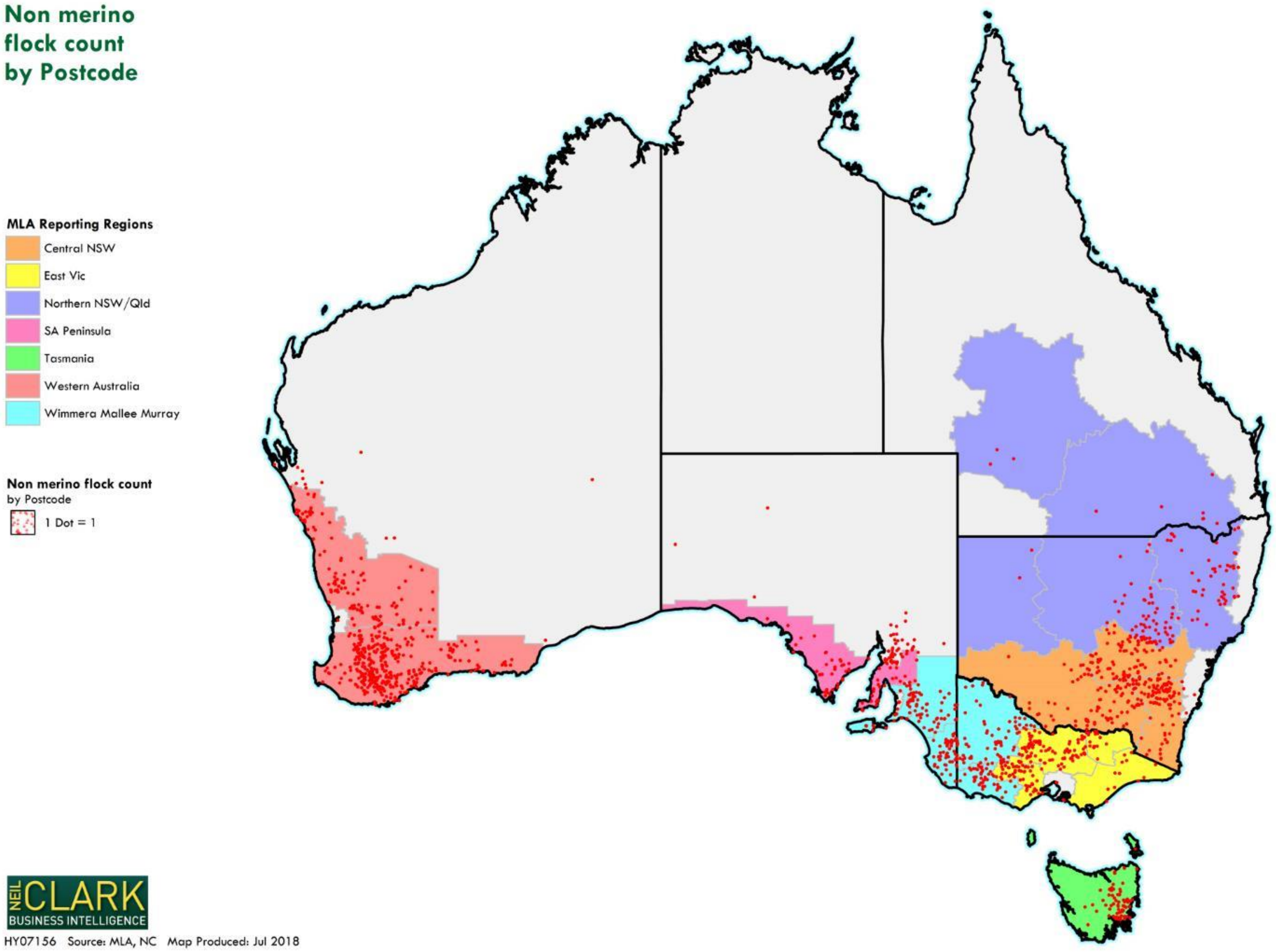
Total properties: n = 3,364
Merino properties: n = 1,876
All other properties: n = 1,488

Survey Respondents [3/4]: **Merino** Flock Counts



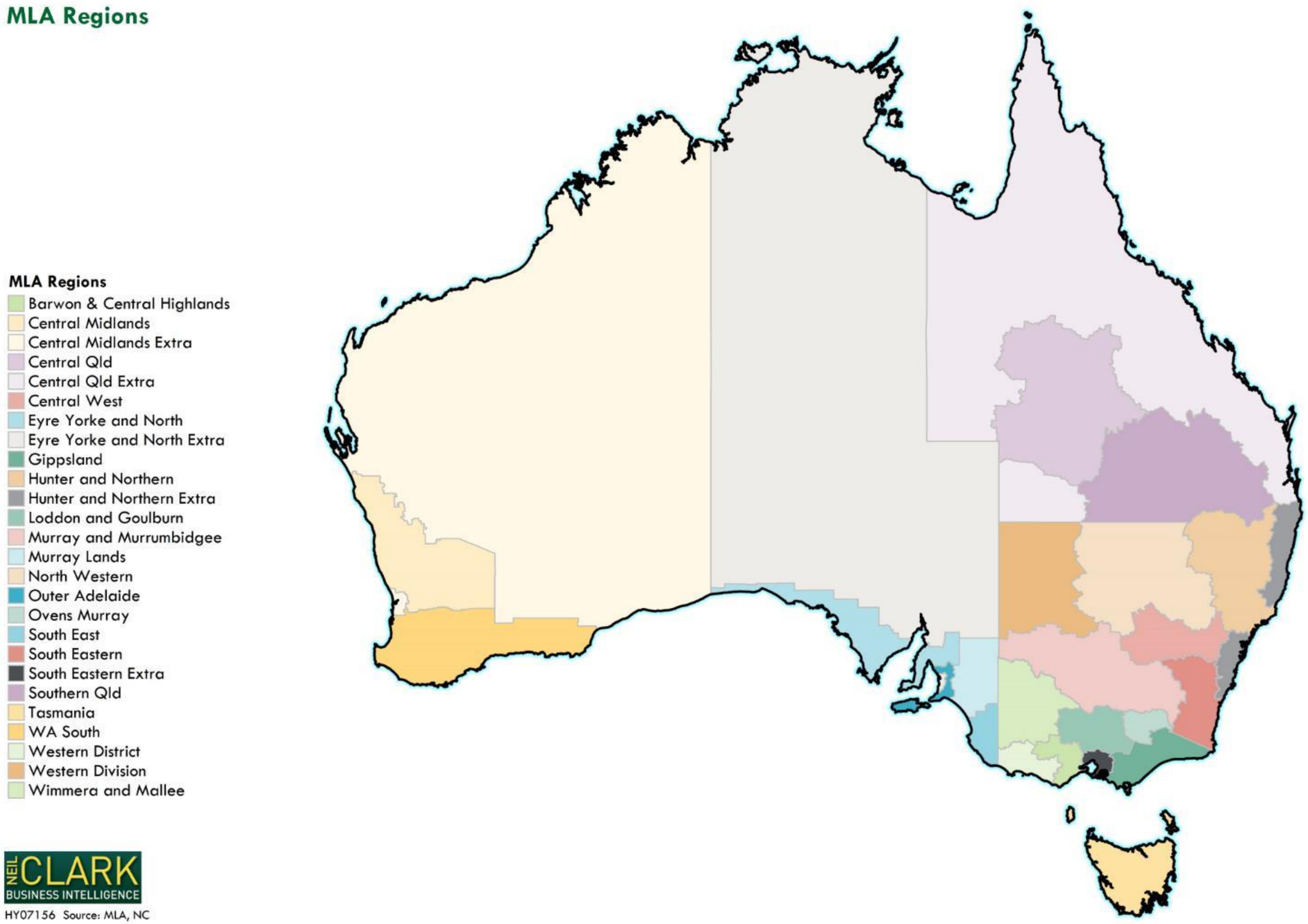
Merino properties: n = 1,876

Survey Respondents [4/4]: **Non-Merino** Flock Counts



All other properties: n = 1,488

MLA Sheep Producing Regions



Due to seasonal and growing condition variability throughout Australia and even within states, Australia was divided into 26 sheep producing regions so that sheep numbers and flock demographics could be reported at a regional level.

Of the 26 sheep producing regions, 7 are located in NSW, 7 in Victoria, 5 in SA, 3 in WA, 3 in Queensland and 1 in Tasmania. These producing regions are likely to change as the flock distribution changes.

MEAT & LIVESTOCK AUSTRALIA

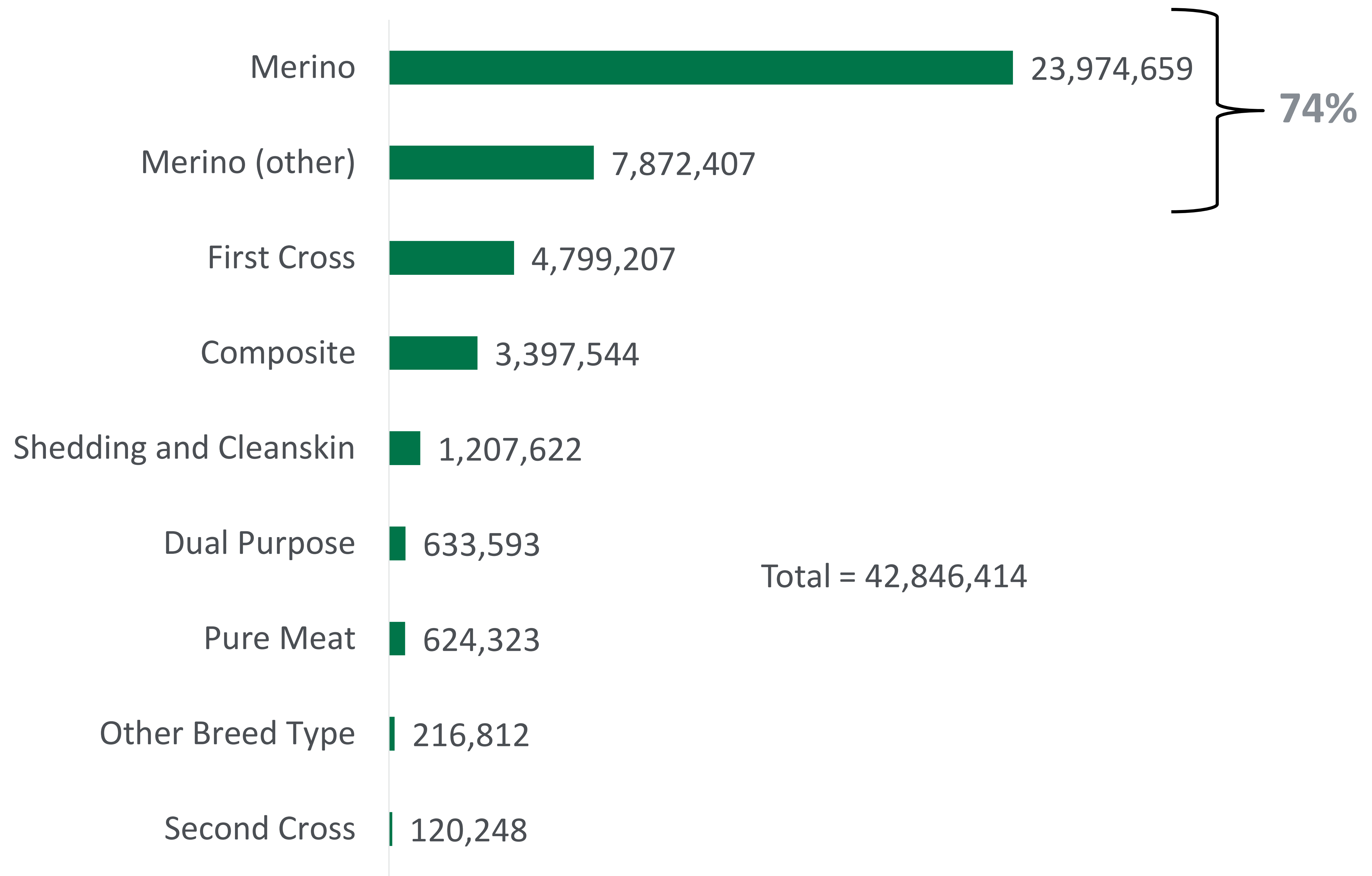
National Results

Ewes on hand and Lambs on hand - Australia

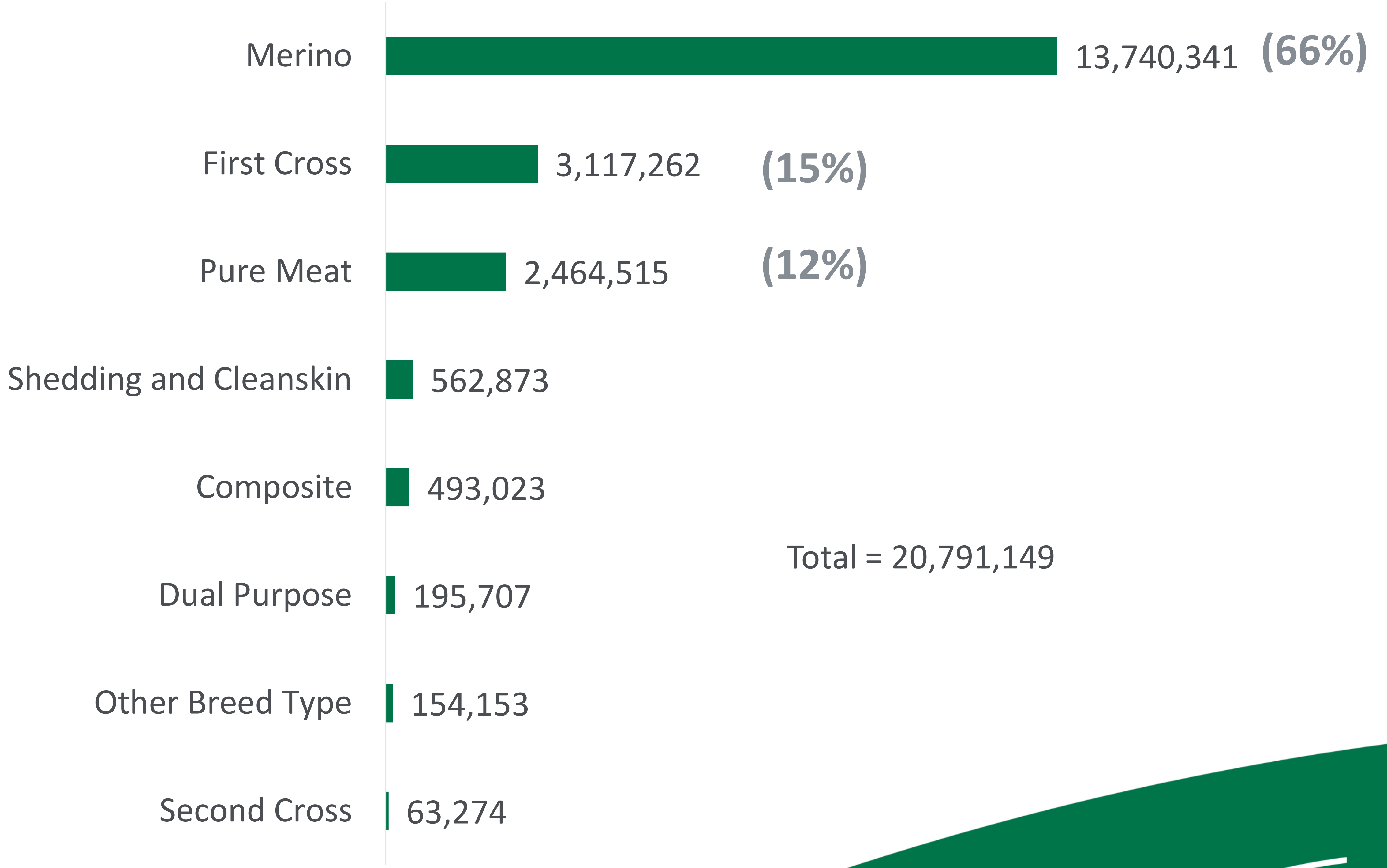
Merinos accounted for 74% of the total breeding ewe flock at 32 million head. Merino breeding ewes were further divided into Merino ewes for pure bred Merino production and Merino ewes for crossbred production and 'other' Merinos, accounting for 74% and 25% of the merino flock, respectively.

There were **21 million** lambs on hand at 30 June 2018. Merinos made up 66% of the total lamb flock, at **13.7 million head**, followed by First cross and Pure meat lambs (accounting for 15% and 12% of the national lamb flock respectively).

Number of ewes on hand



Number of lambs on hand



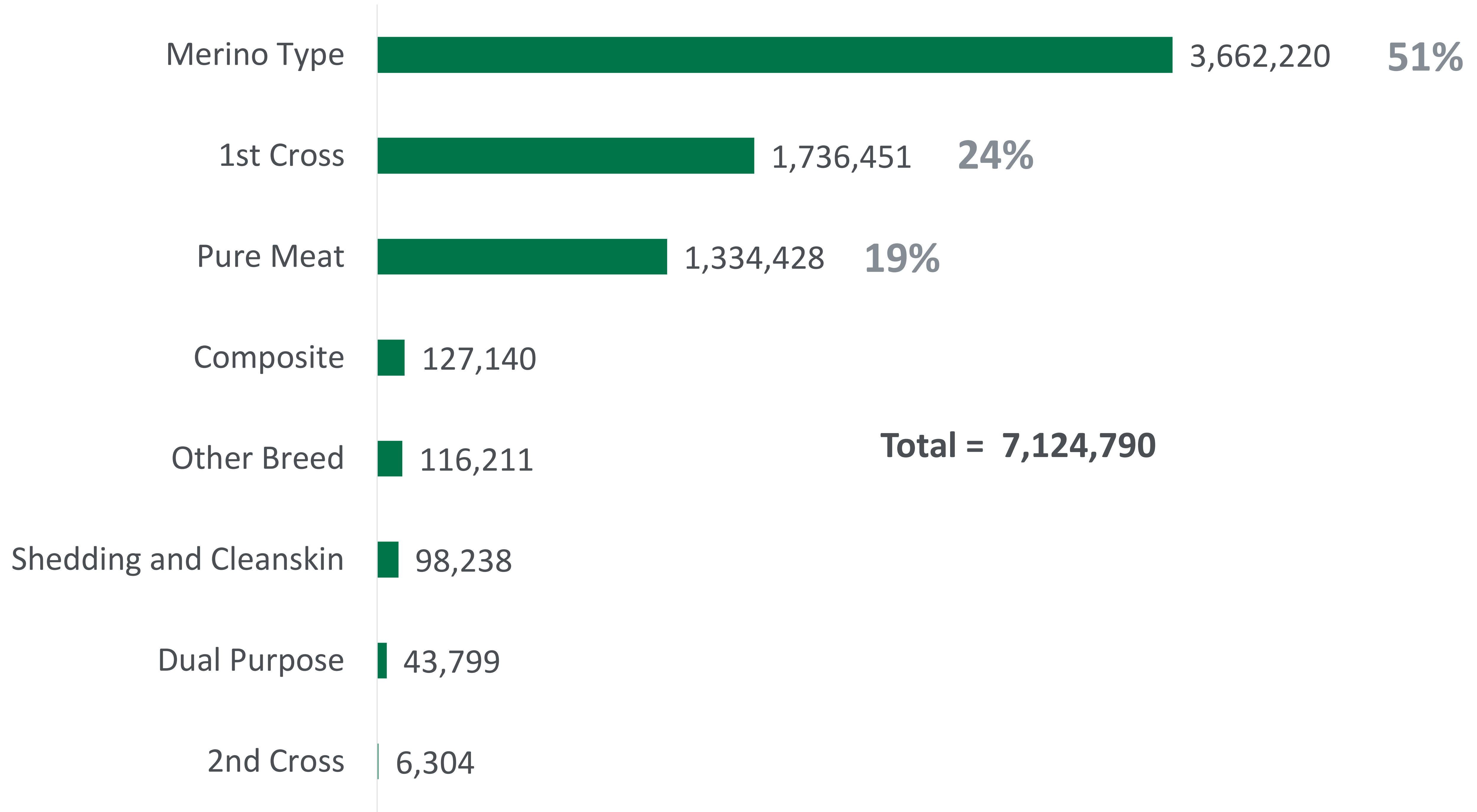
Sample base (properties) n=3,364

Lambs marked in the past four months (1 Mar – 30 Jun 2018) and Ewes joined to produce those lambs - Australia

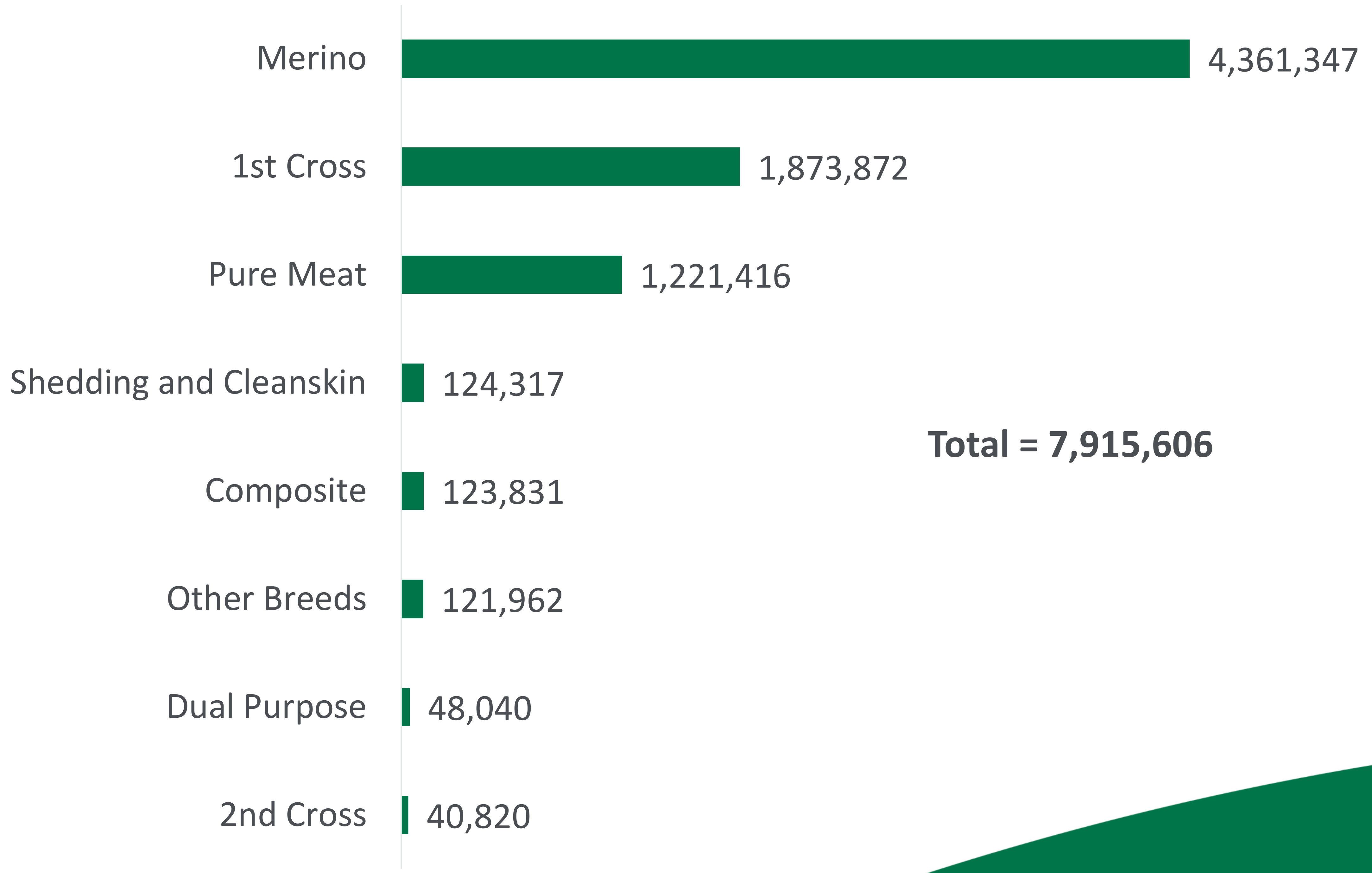
There were a total of 7.1 million lambs marked in the four months (from 1 March to 30 June 2018). Merinos accounted for the largest proportion of lambs marked in the past four months at **51%**, with First cross and Pure meat breeds accounting for **24%** and **19%**, respectively.

A total number of 7.9 million ewes were joined to produce the lambs that were marked in the past four months. National Merino marking rates were well below that of non-merino breeds at 84% and 97% respectively.

Lambs marked in the past 4 months (1 Mar to 30 Jun)



Ewes joined to produce marked lambs (1 Mar to 30 Jun)



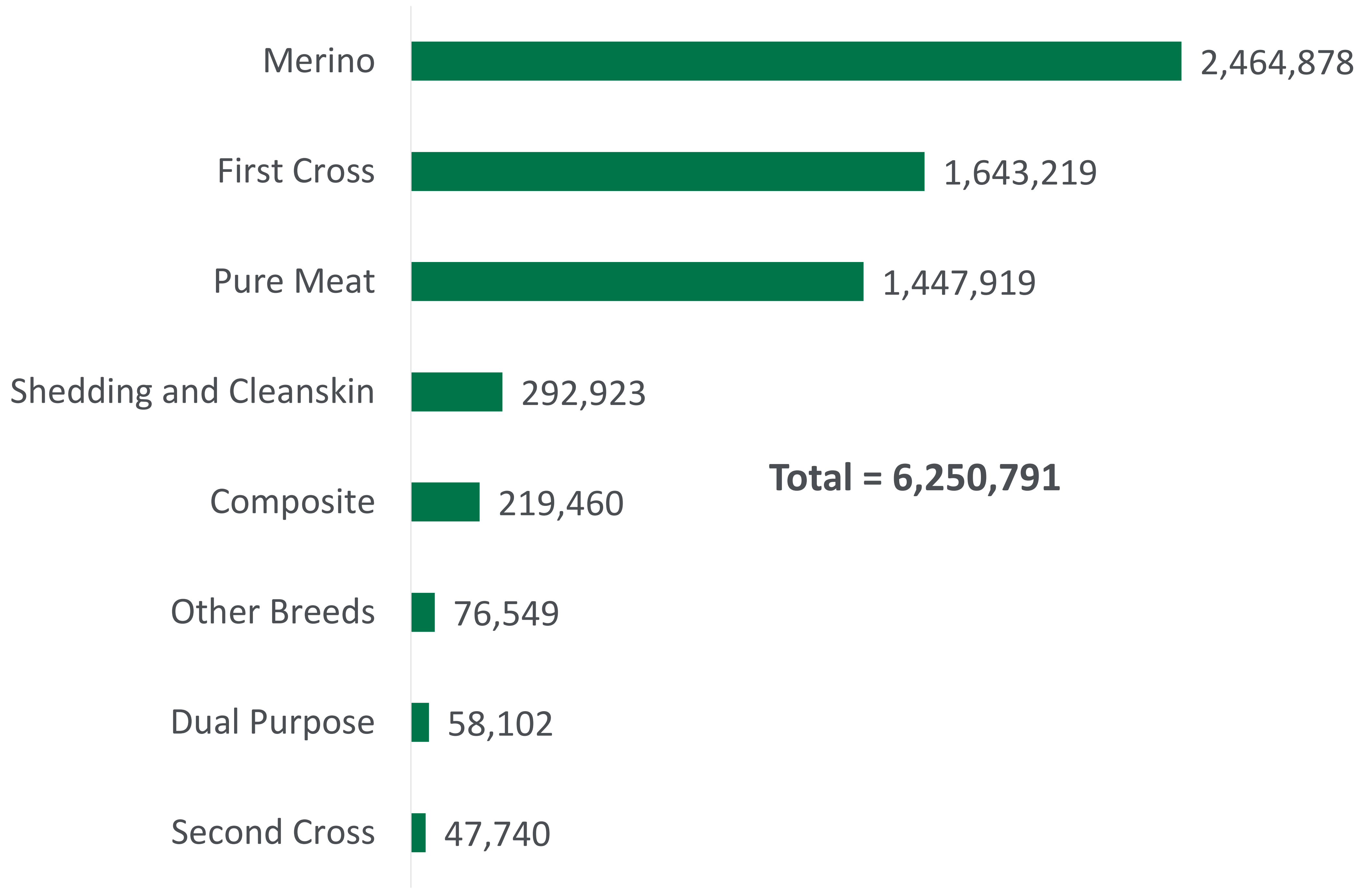
Sample base (properties) n=3,364

Expected lamb sales in the next 4 months - Australia

A total number of **6.3 million lambs** are expected to be sold in the next four months (1 July 2018 to 31 October 2018), approximately 30% of the total number of lambs on hand (21 million). Of these: First Cross, Merino and Pure Meat breeds are expected to account for 26%, 39% and 23% of lamb sales respectively.

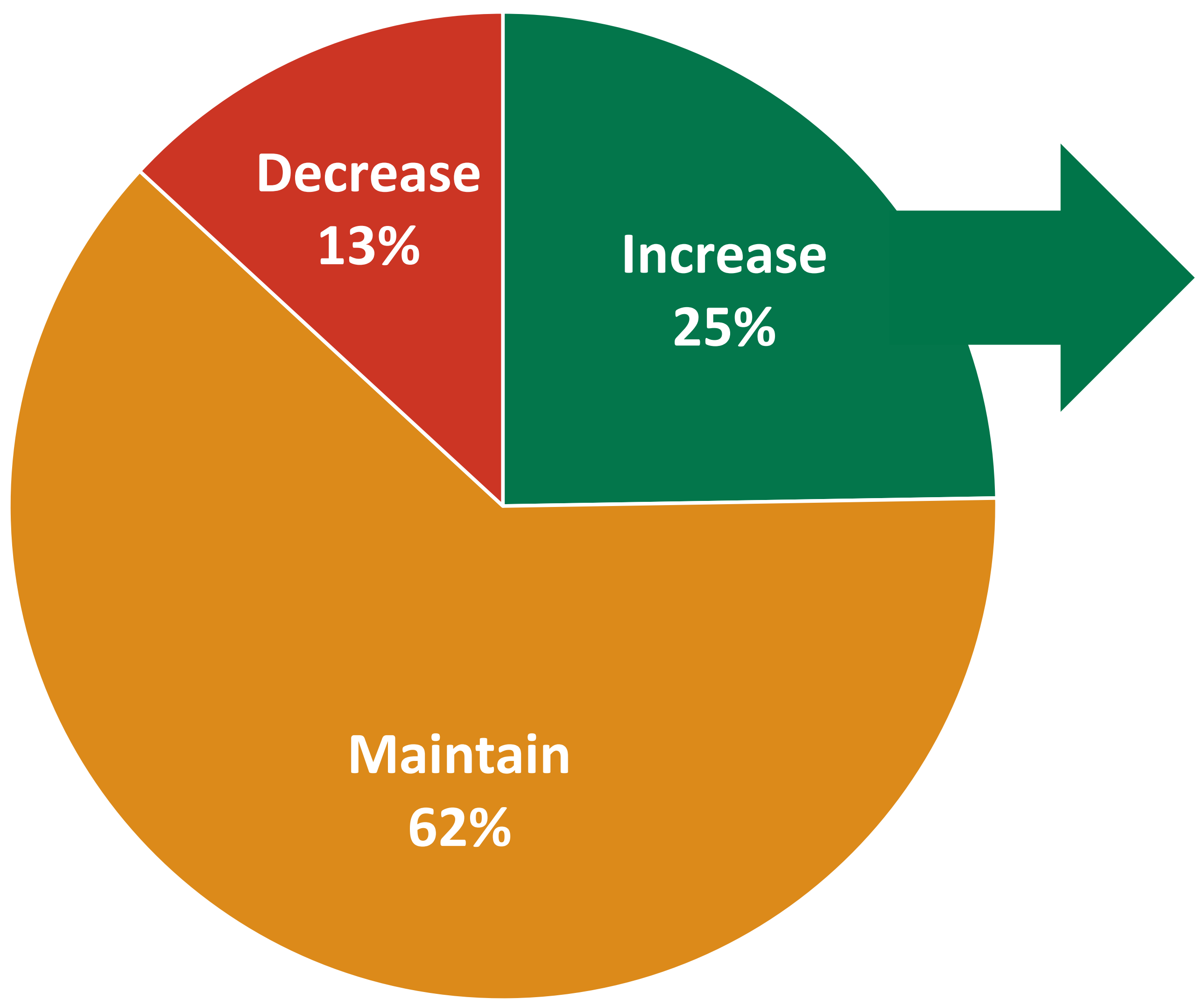
These results are consistent with producer ewe flock intentions for the next 12 months and method of achievement, with **25%** looking to increase their ewe flocks and of these 40% are expected to retain more replacement ewes than normal.

Expected lamb sales in the next 4 months



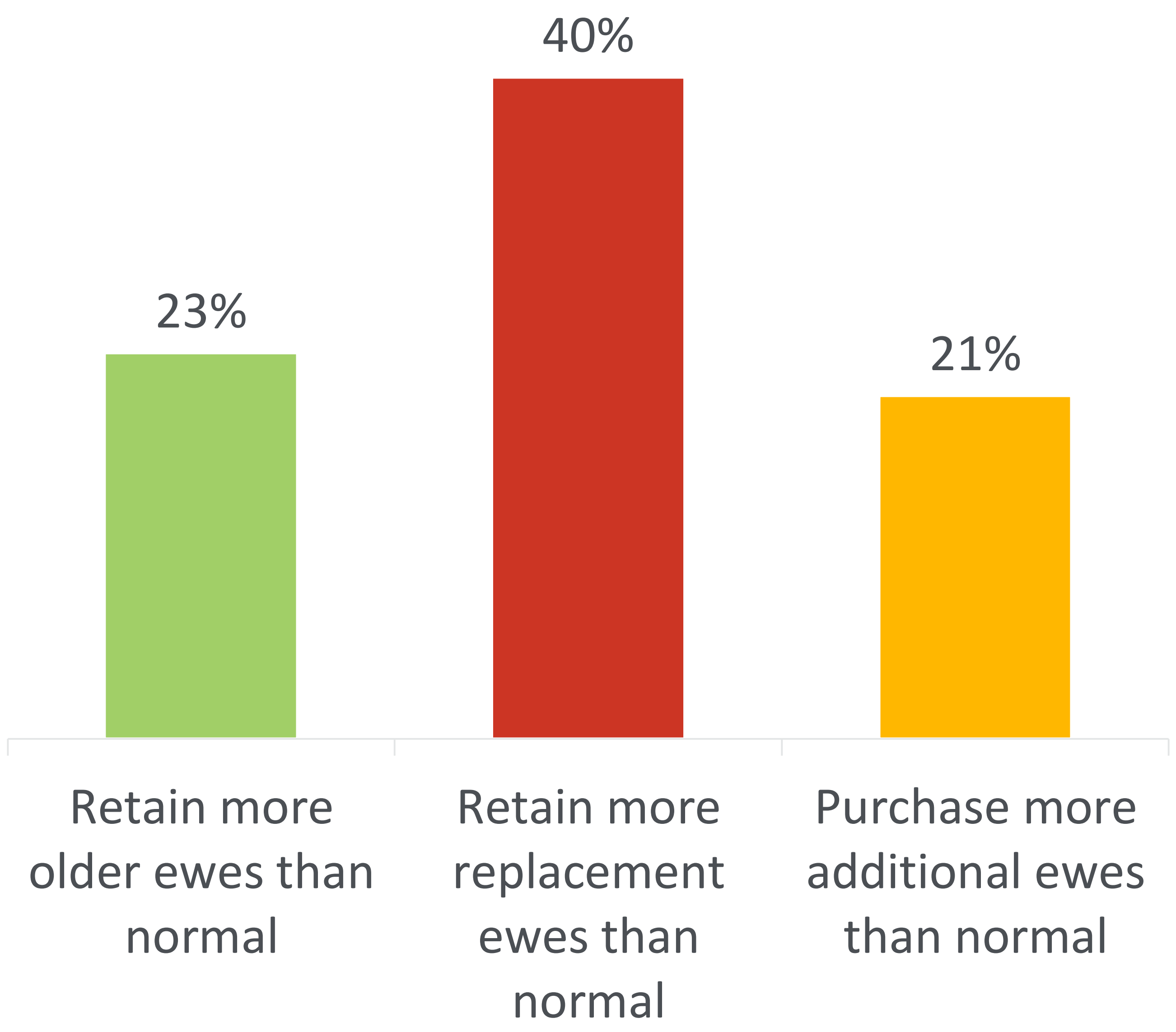
Sample base (properties) n=3,364

Ewe flock intentions



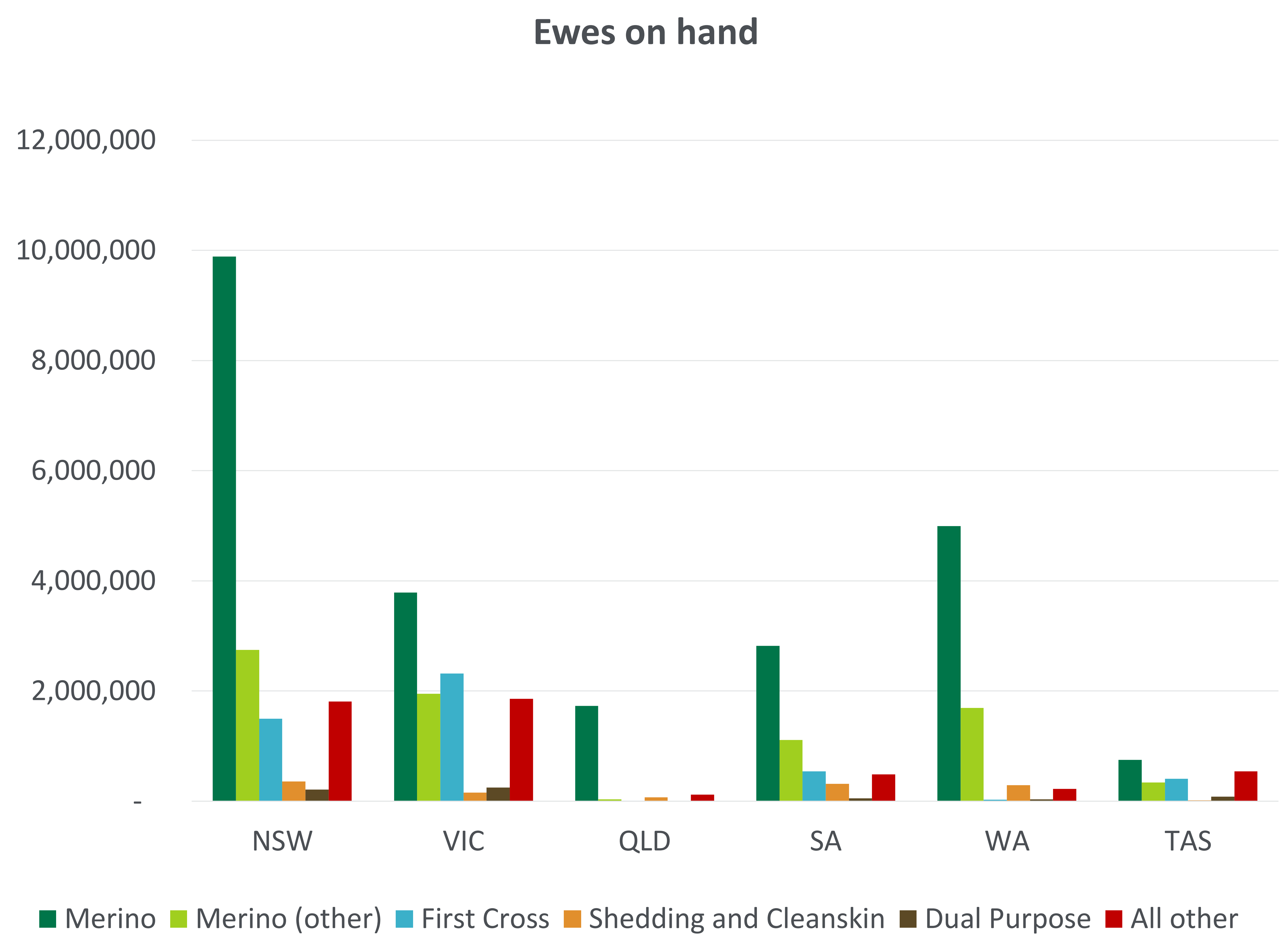
Sample base (respondents) n=1,565

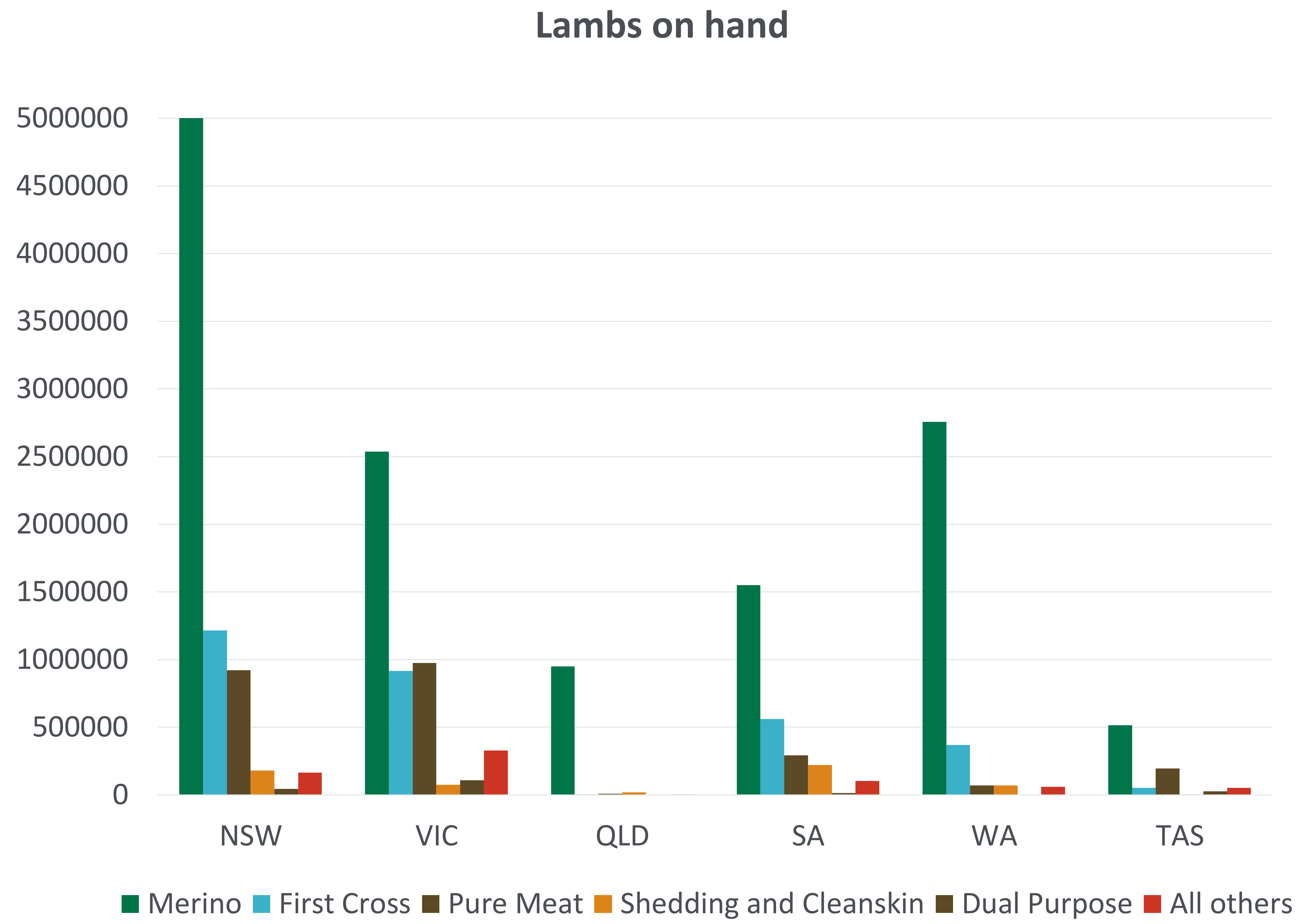
How to achieve increase



Results by State

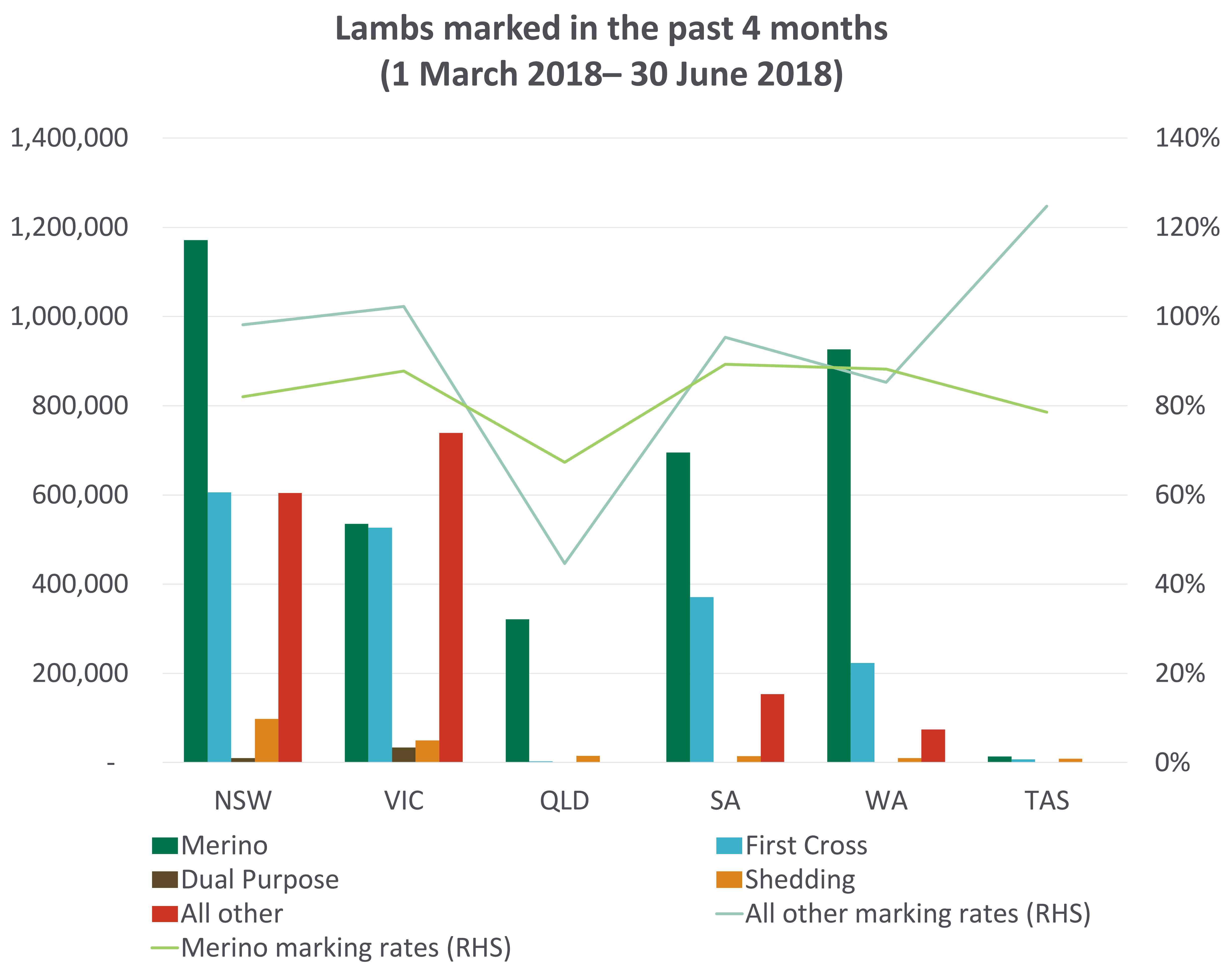
Ewes on hand and Lambs on hand - State

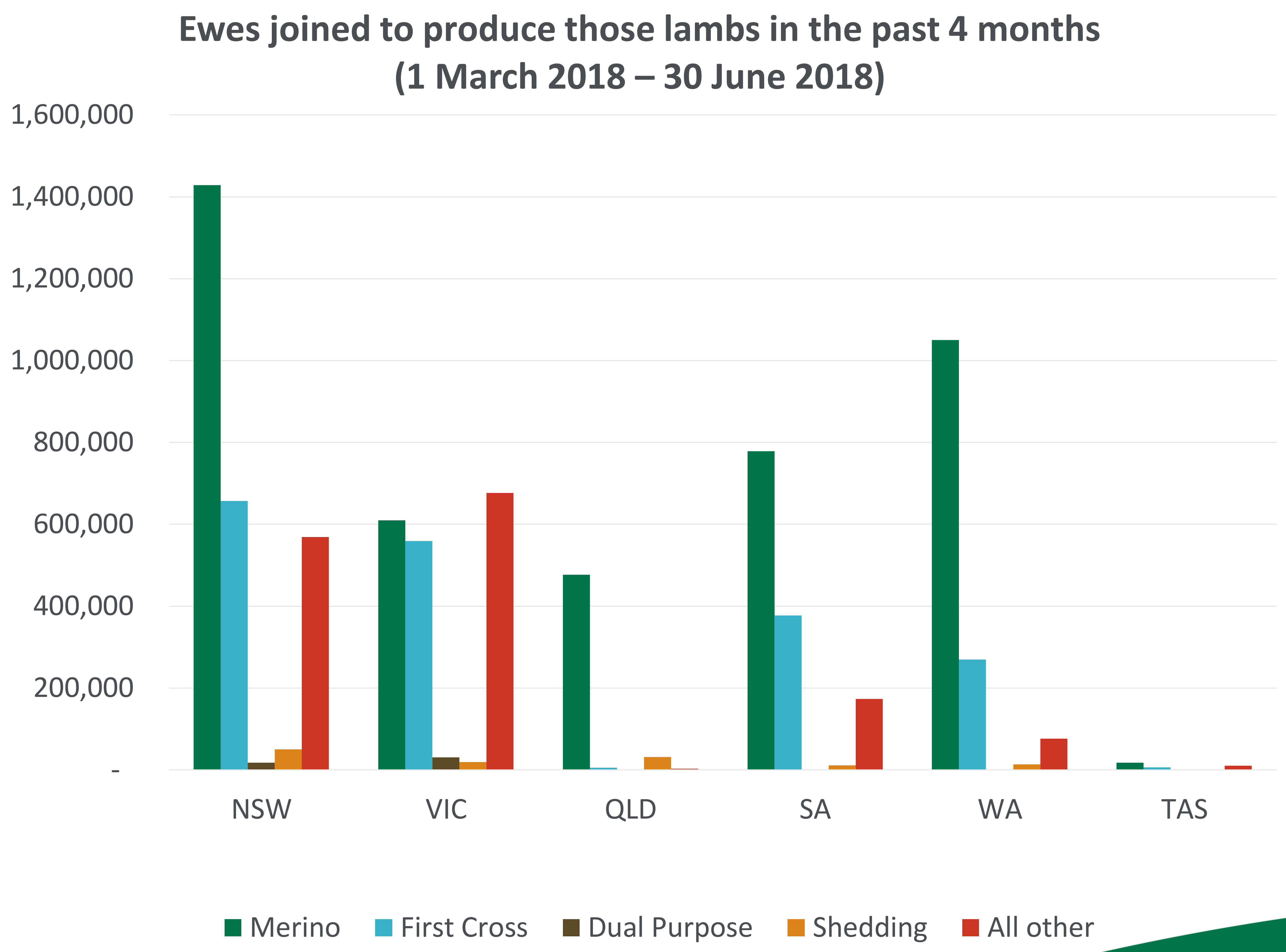




Sample base (properties) n=3,364

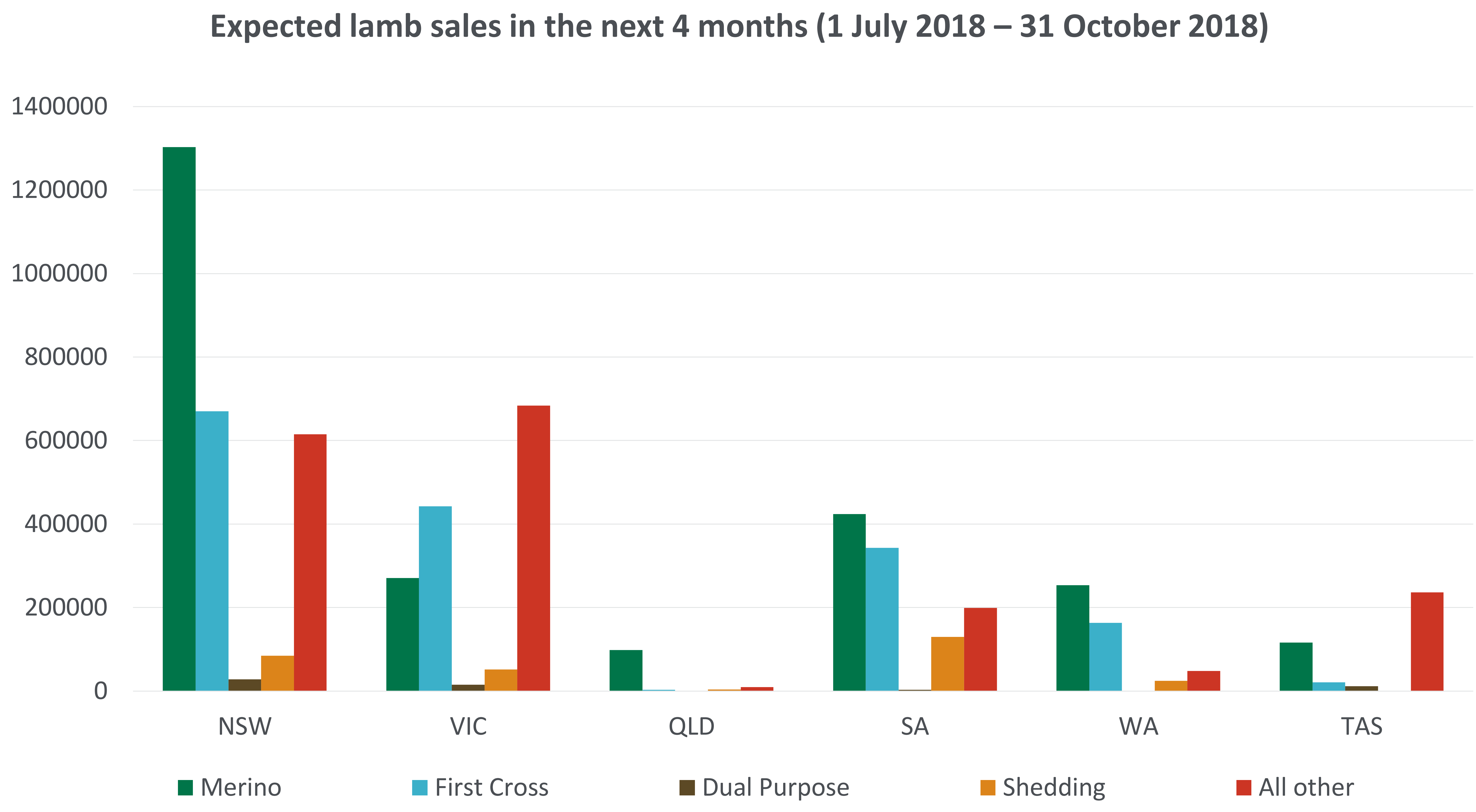
Lambs marked in the past four months and Ewes joined to produce those lambs - State





Sample base (properties) n=3,364

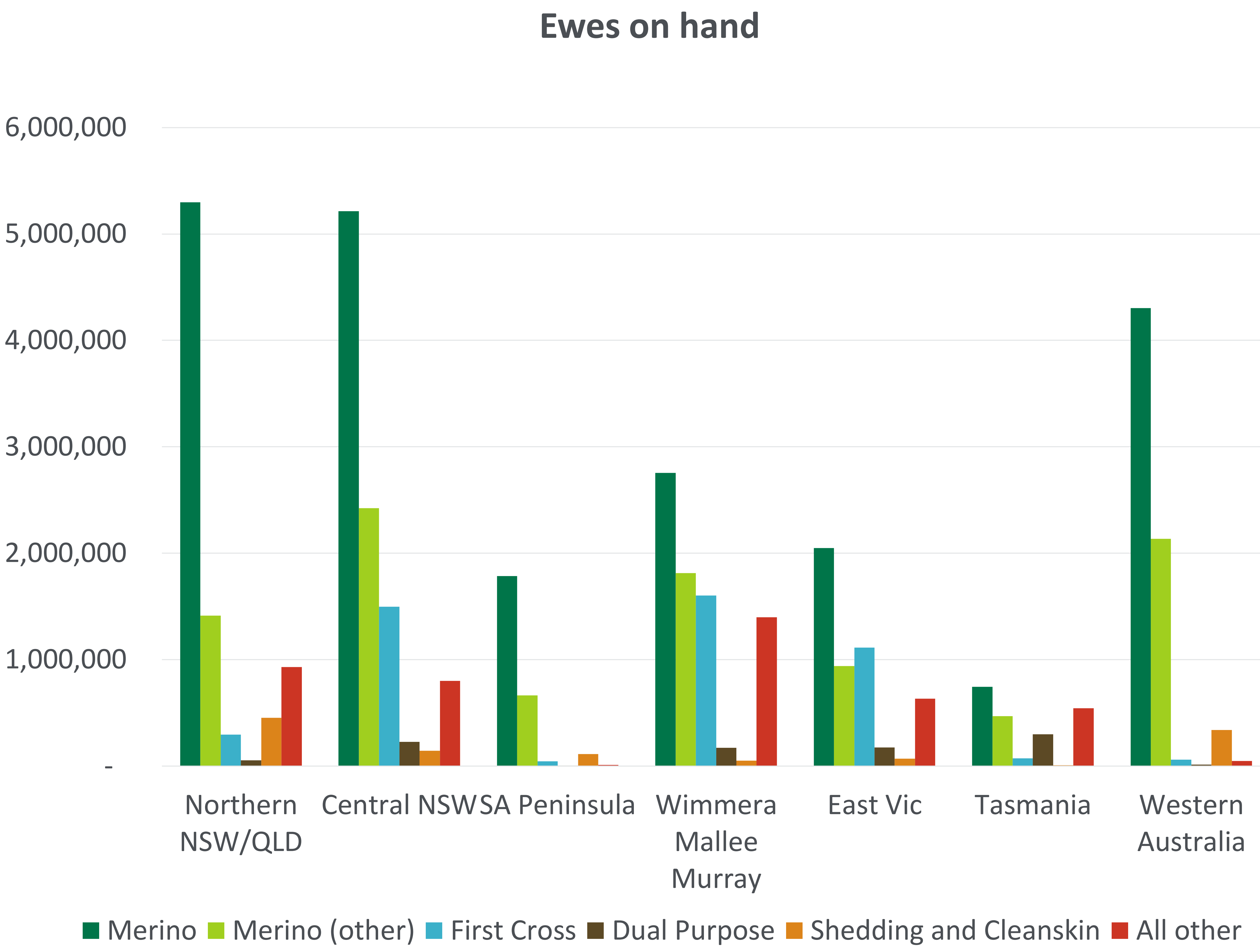
Expected lamb sales in the next four months – by State

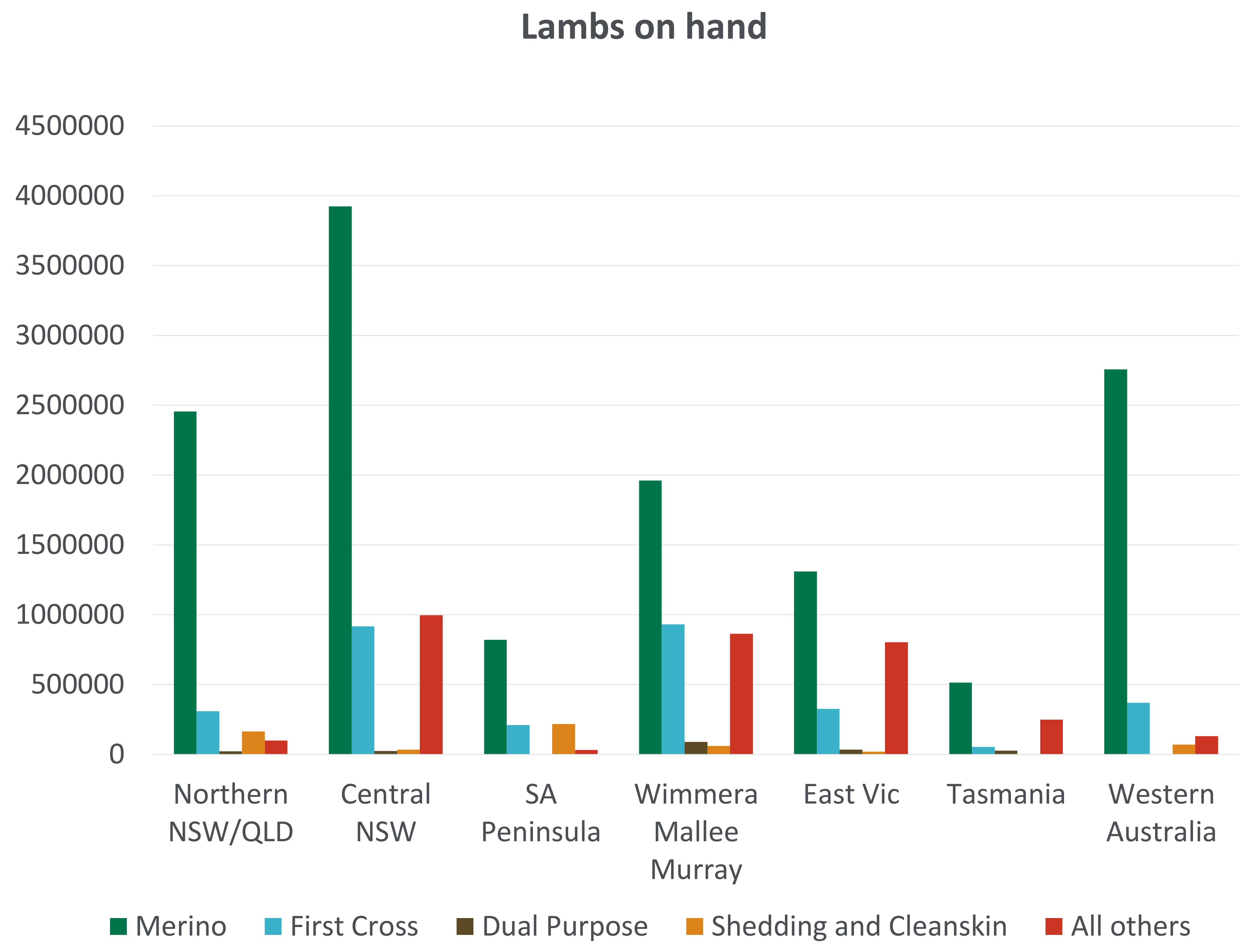


Sample base (properties) n=3,364

Results by MLA Reporting Region

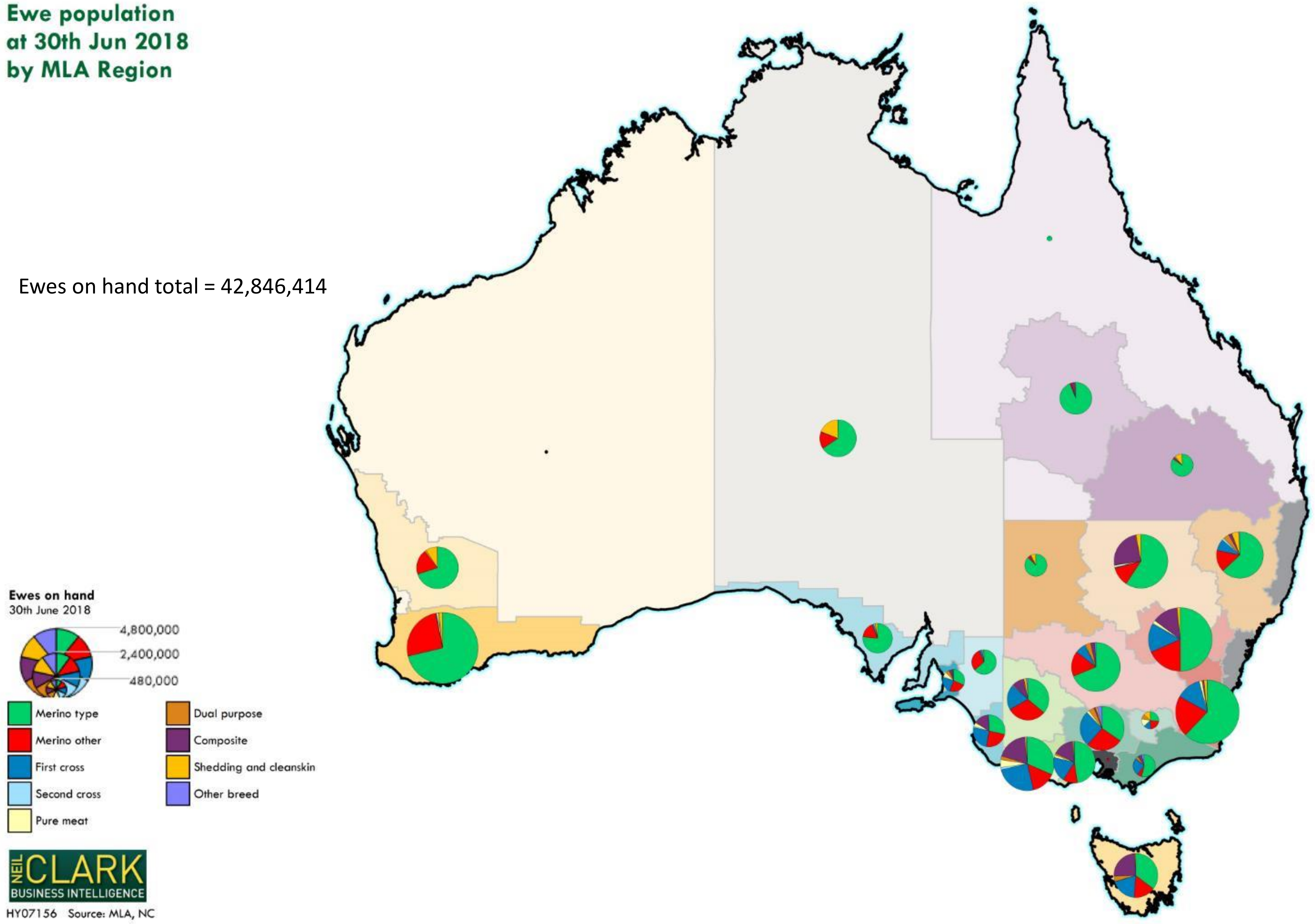
Ewes on hand and lambs on hand 30 June 2018 - by MLA reporting regions





Sample base (properties) n=3,364

Ewes on hand – MLA reporting regions



Ewes on hand total = 42,846,414

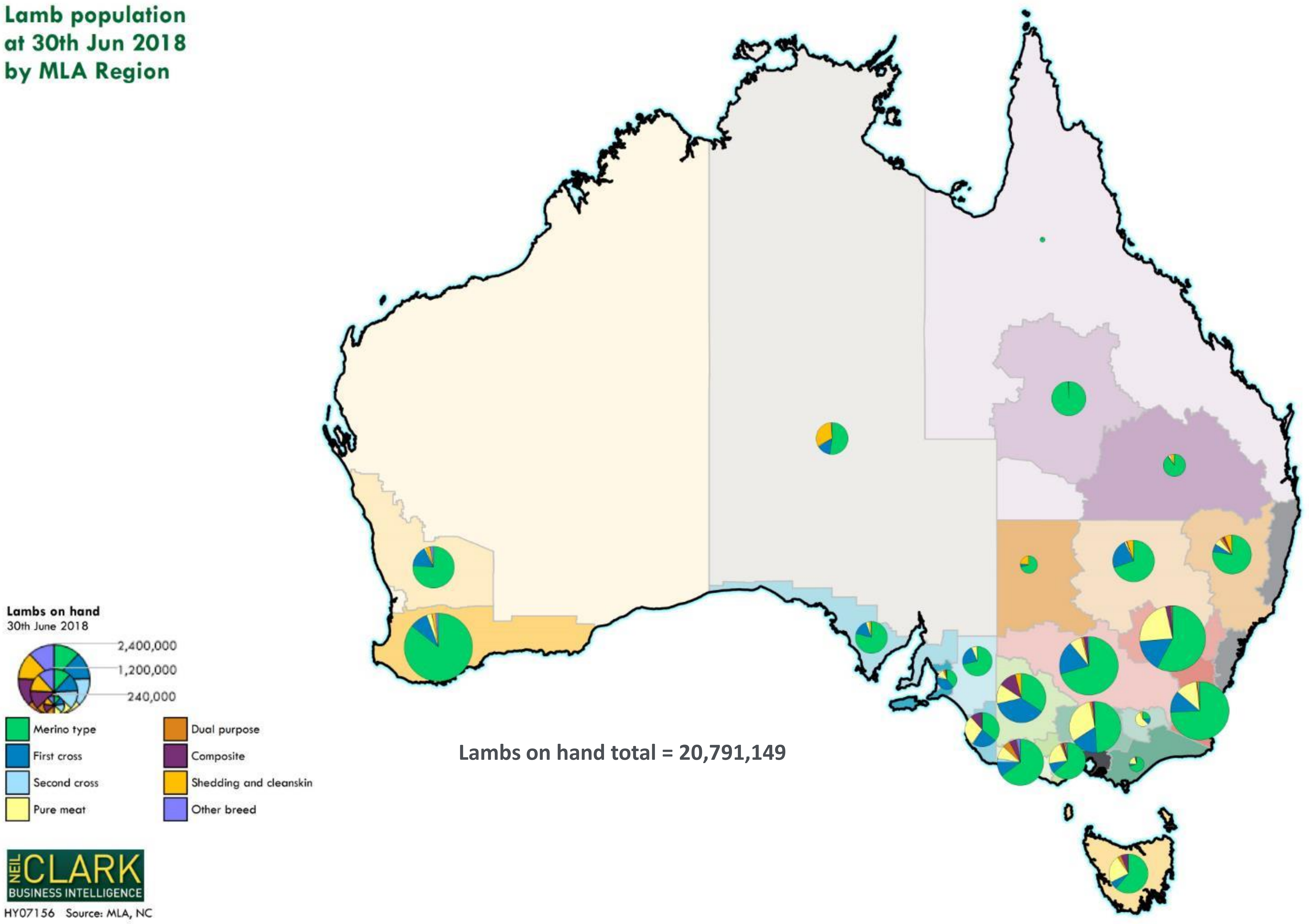
The breeding ewe population was largest in Southern WA and the South Eastern region NSW, with around 5.1 million and 4 million head, respectively.

Central QLD extra had the highest percentage of merinos in their flock at 98% however, this regions has only a little over 40 thousand sheep in total. With Southern WA with the second largest percentage of Merinos in their flock, at 97% (Merino + Merino other).

Conversely, when considering regions with over 30 thousand non merinos the largest percentage of non-Merino ewes was in Victoria and Tasmania, with all non-Merino breeds combining to account for 42% and 49% of each state's breeding ewe population respectively.

MLA and AWI Wool and Sheepmeat Survey Report, June 2018

Lambs on hand – by MLA reporting regions

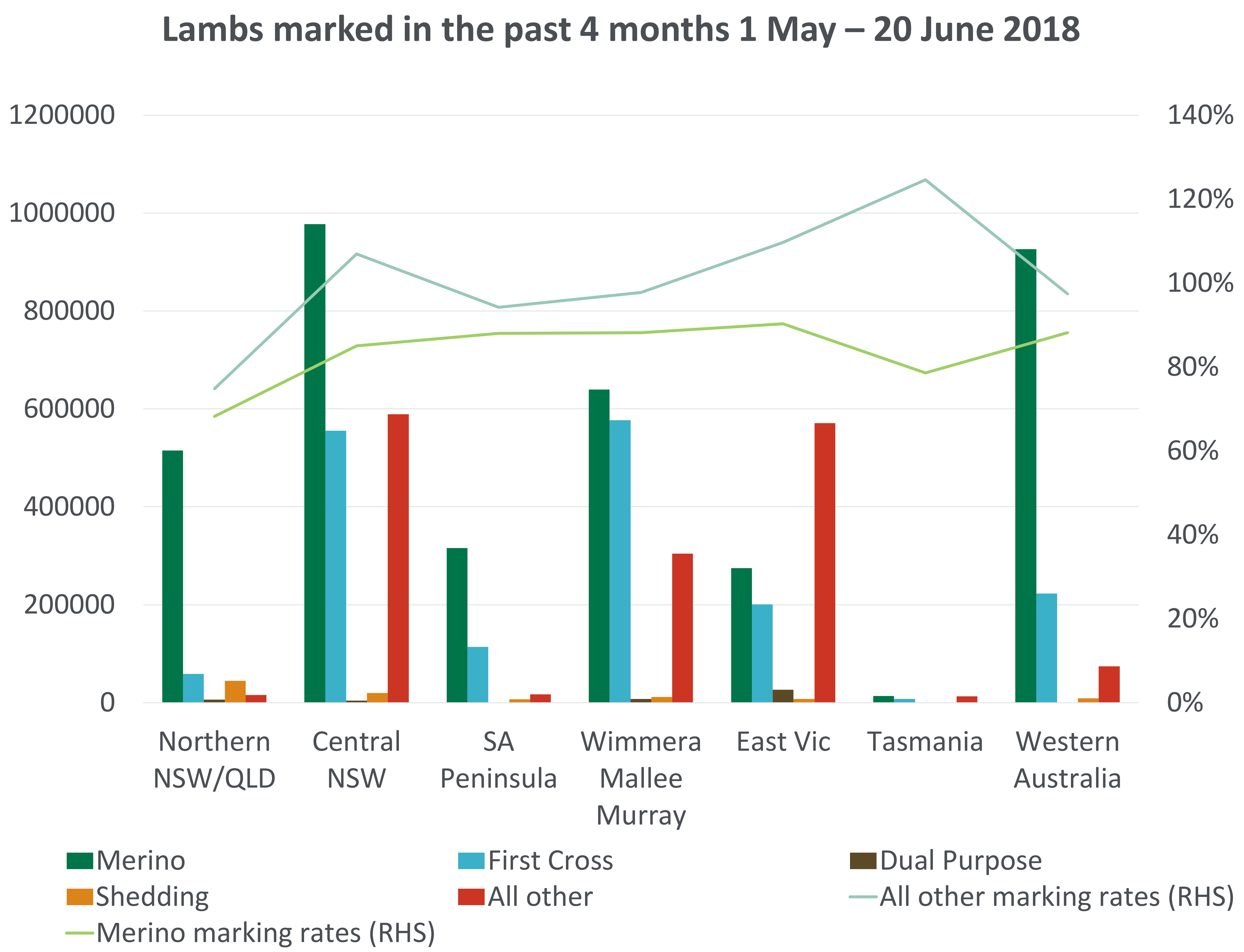


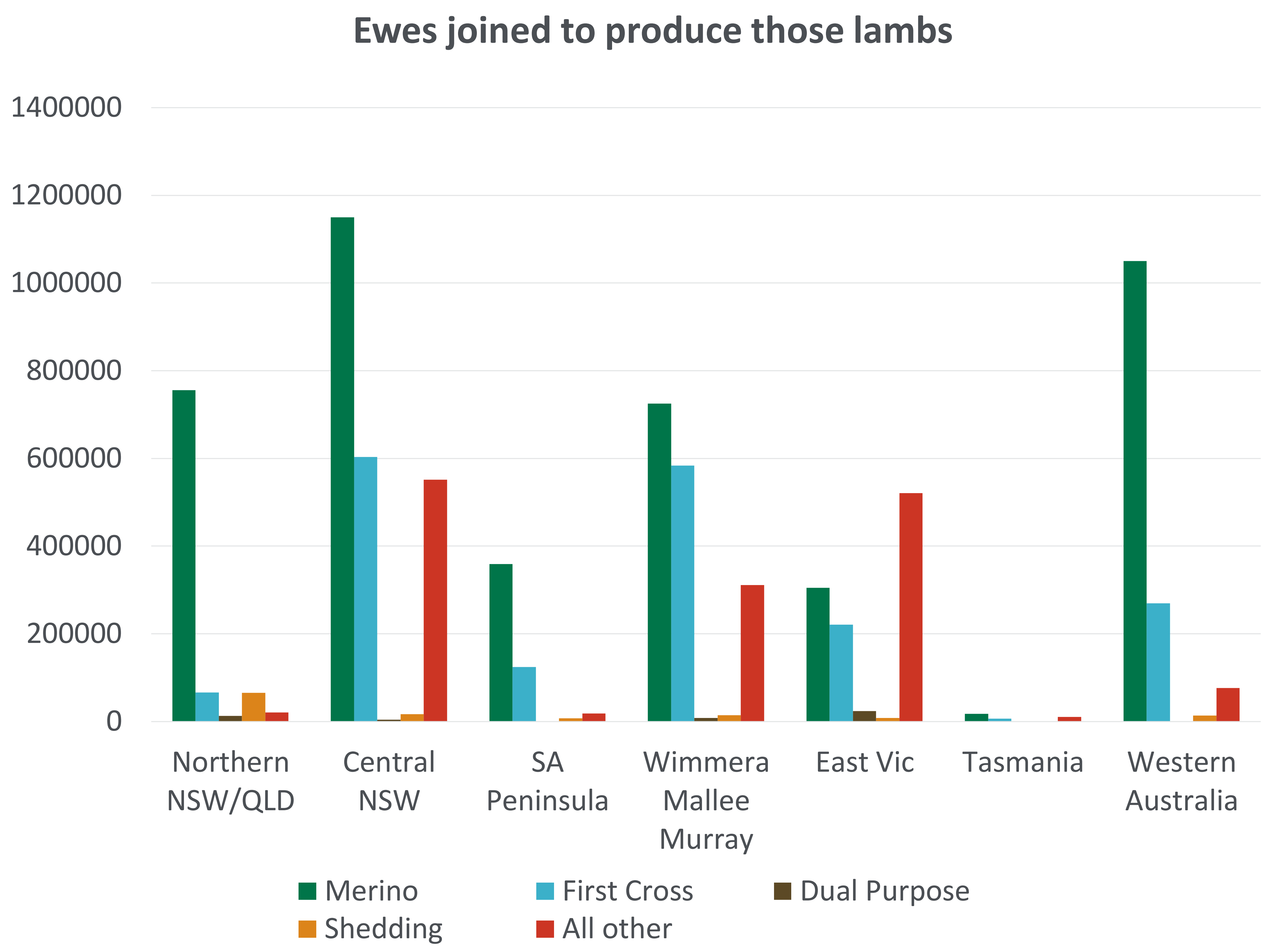
In line with a larger ewe flock population, the number of lambs on hand on 30 June was greatest in Southern WA, at 2.4 million head. This was followed by the Central West NSW region, recording around 2.2 million head.

Although Merinos tended to be the most dominant breed of lamb across almost all regions, a large proportion of flocks in some regions were made up of first cross and pure meat breeds. In Ovens Murray, South East SA and Outer Adelaide a combination of first cross and pure meat breeds accounted for 70%, 51% and 52% of total lamb flocks, respectively.

NSW had the largest Merino lamb flock nationally at around 5.4 million head with Merinos accounting for 68% of the total flock. In QLD however, Merinos accounted for 97% of the total lamb flock (0.95m of 0.98m head).

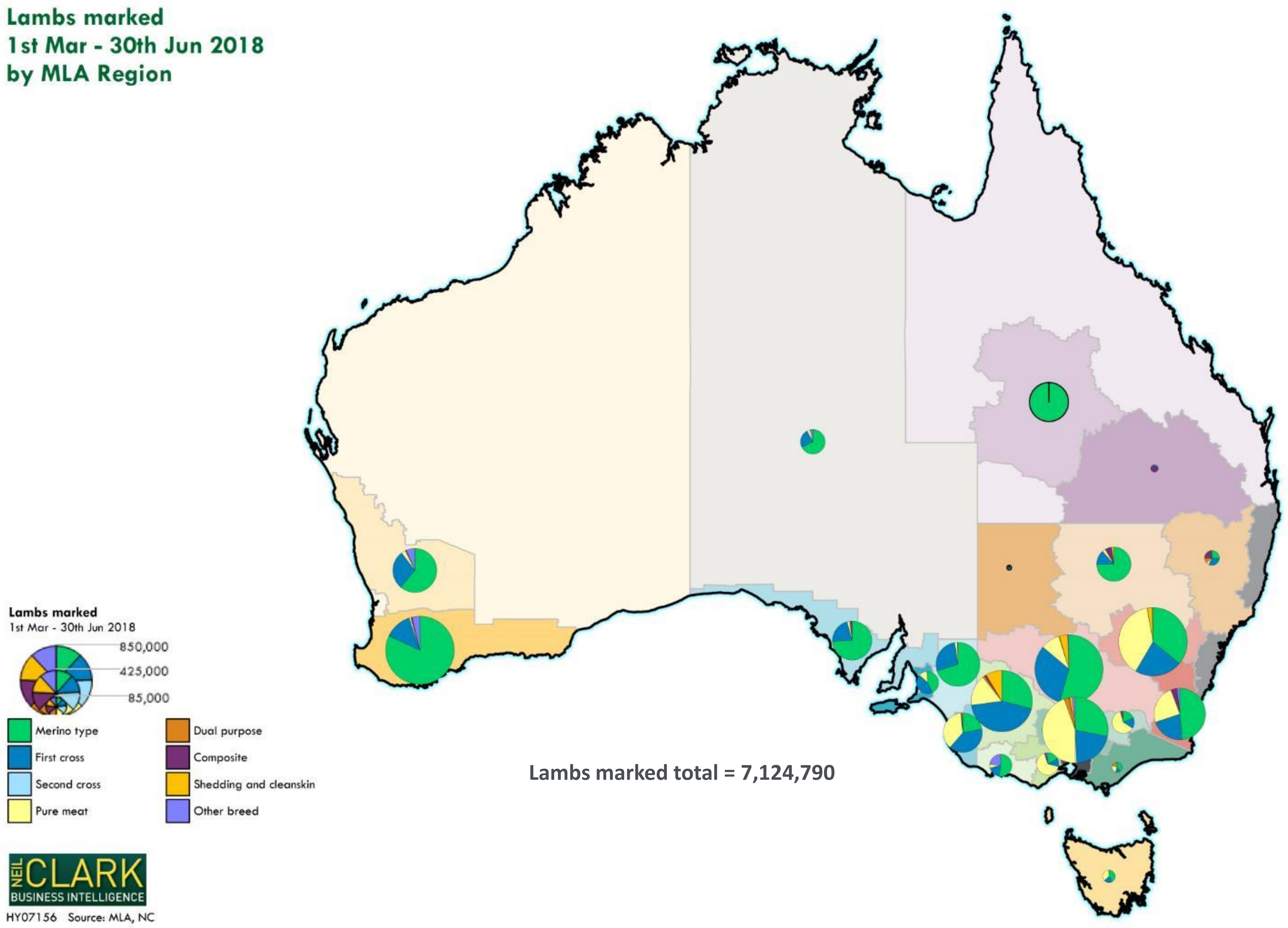
Lambs marked in the past 4 months and Ewes joined to produce those lambs – by MLA reporting regions





Sample base (properties) n=3,364

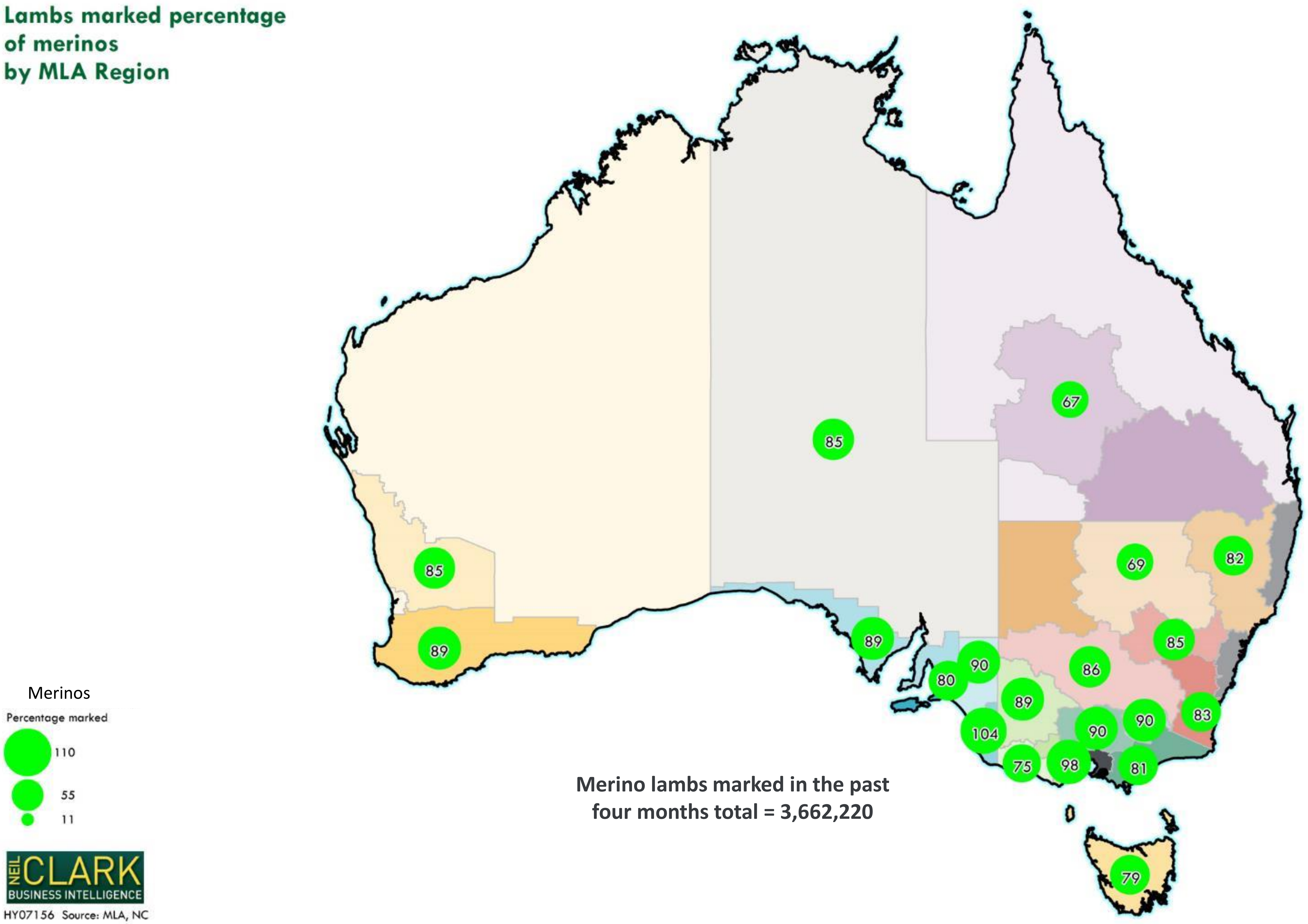
Lambs marked in the past four months



Around 7.1 million lambs were marked over the past four months.

Central West, WA South, Murray and Murrumbidgee accounted for a large proportion of new lambs, with markings of 0.85m, 0.84m and 0.8m head respectively.

Merino lamb marking rates – by MLA reporting regions



Merino lambs marked in the past four months total = 3,662,220

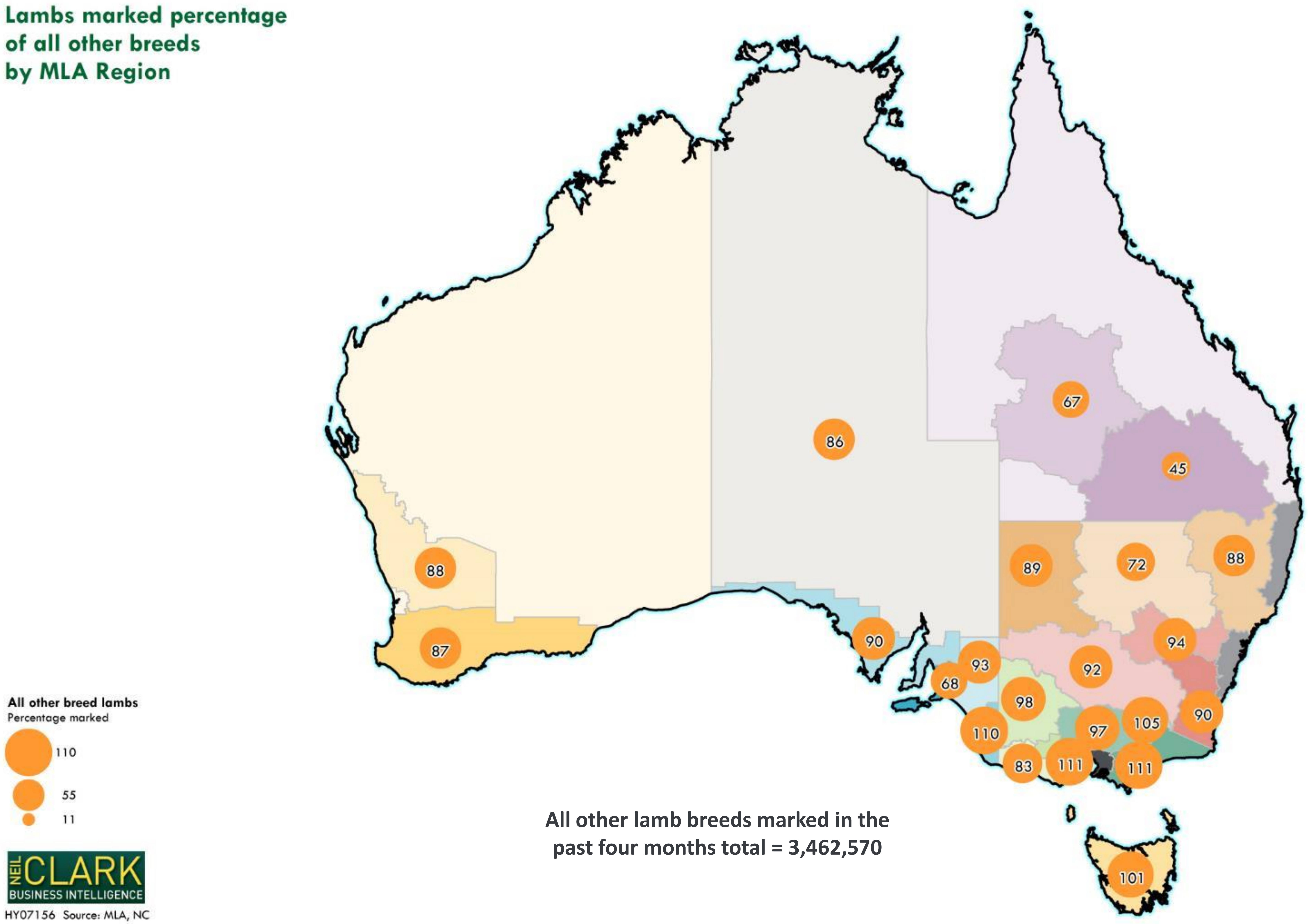
The highest Merino marking rate was recorded in the South Eastern of SA (104%) and Barwon and central highlands in Victoria (98%). Conversely, the lowest marking rates were recorded in Central Queensland, North Western and Gippsland in VIC, with 67%, 69% and 81% respectively.

On a state basis, Queensland had the lowest marking rate at 67%, while SA, WA and VIC recorded the highest Merino marking rates of 89%, 88% and 88% respectively.

Note: These marking rates are for the period between 1 March 2018 to 30 June 2018 and are not an accurate representation of annual marking rates.

Sample base (properties) n = 1,876

All other breed lamb marking rates – by MLA reporting regions



All other lamb breeds marked in the past four months total = 3,462,570

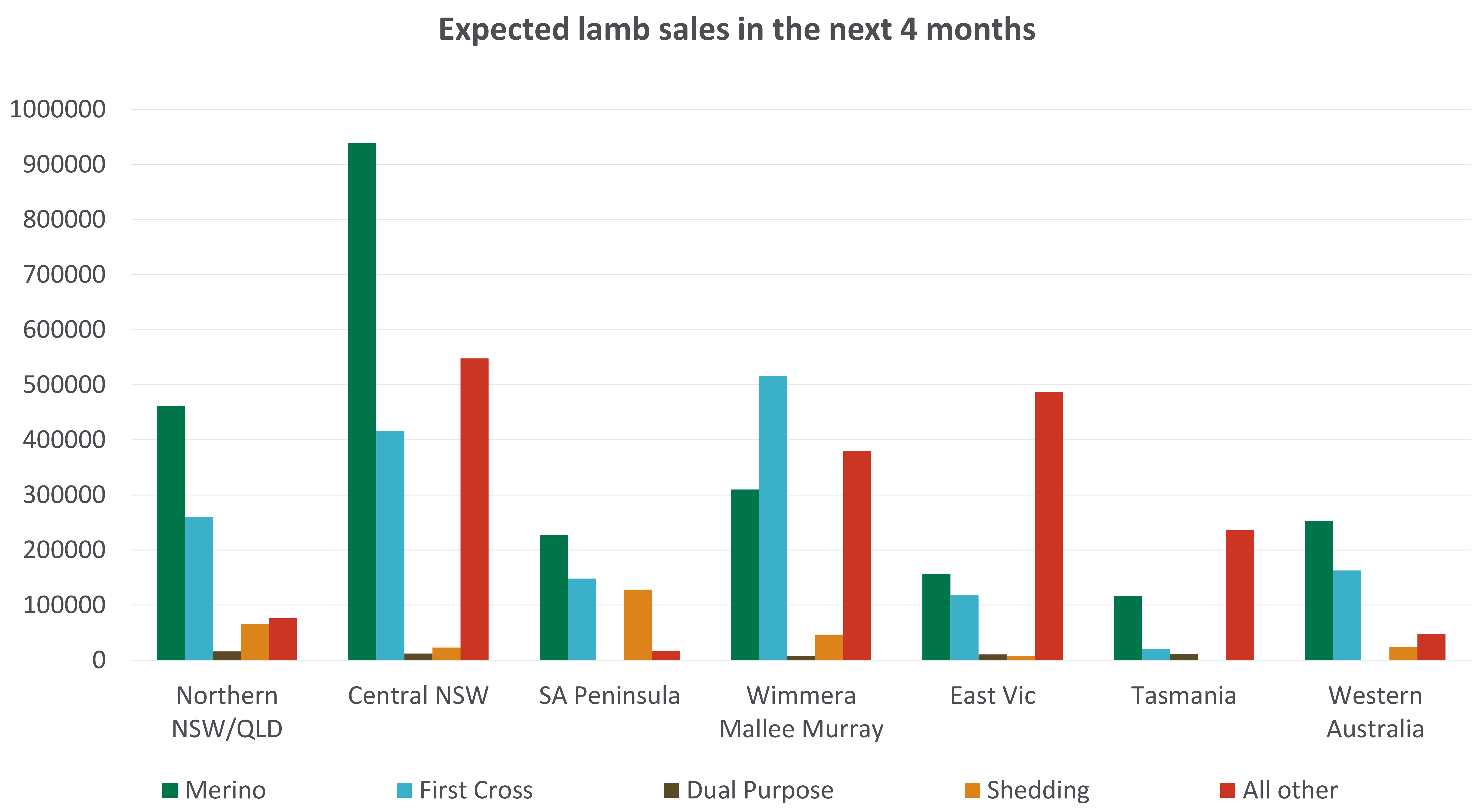
South East, Barwon and Central Highlands and Gippsland recorded the highest marking rates for non-Merino lambs at 110%, 111% and 111% respectively.

On a state basis, Tasmania recorded the highest non-merino marking rates at 125%, well above both Vic and NSW at 102% and 98% respectively.

Note: These marking rates are for the period between 1 July 2018 and 30 June 2018. As this may be outside of the peak lambing period in some regions this year, these are not representations of the average annual marking rates.

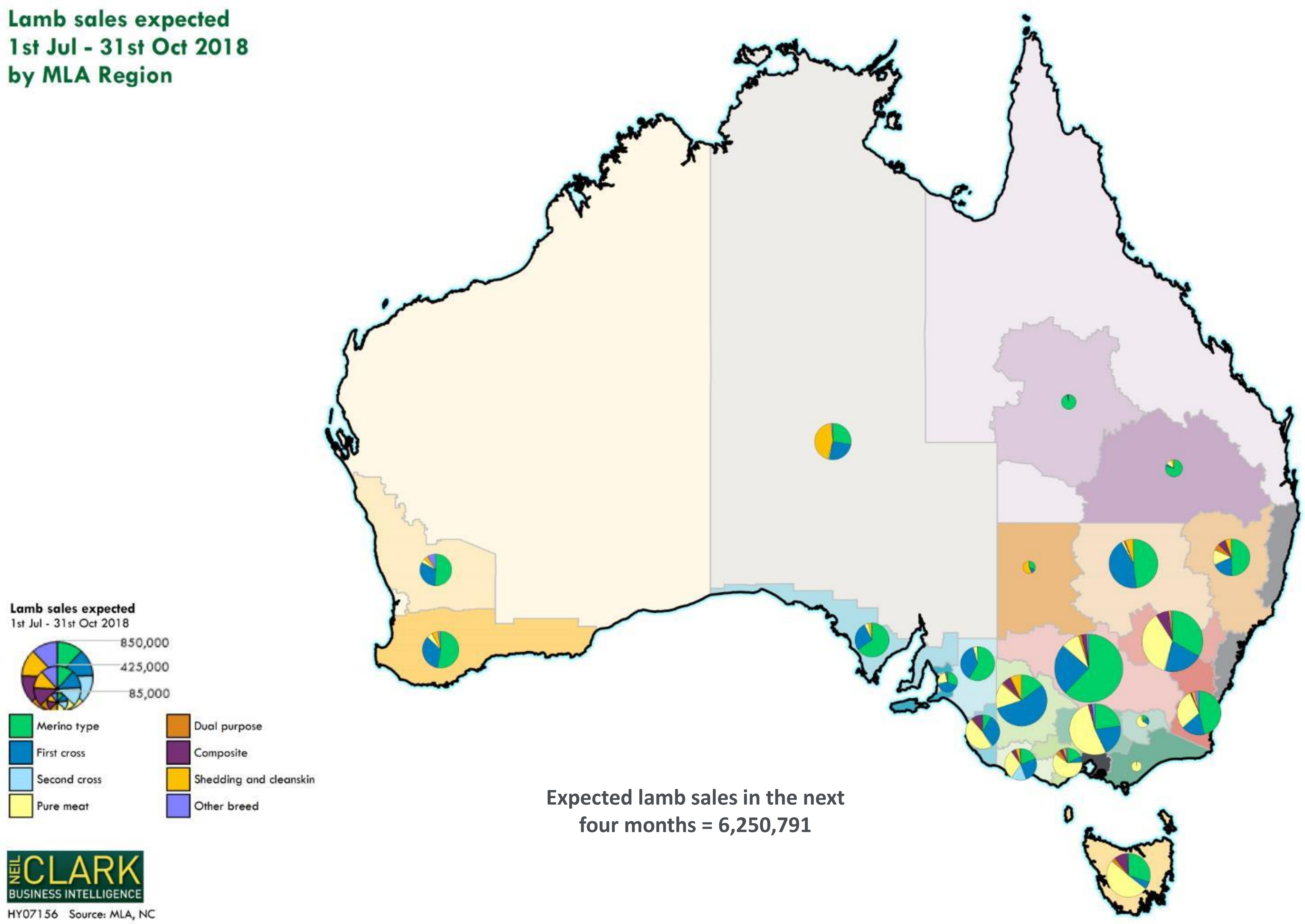
Sample base (properties) n = 1,488

Expected lamb sales in next four months (1 July - 31 October 2018) – by MLA reporting regions



Sample base (properties) n=3,364

Expected lamb sales in next four months



Expected lamb sales in the next four months = 6,250,791

Over the next four months (1 July 2018 to 31 October 2018), most lamb sales are expected to occur in Murray and Murrumbidgee (0.85m), Central West (0.69m), Loddon and Goulburn (0.5m) and Wimmera and Mallee (0.5m).

Merino's are expected to dominate QLD and WA lamb sales over the next four months (86% and 52% respectively). First crosses and pure meat breads will combine to account for 70% of lamb sales in Victoria and 56% in Tasmania.

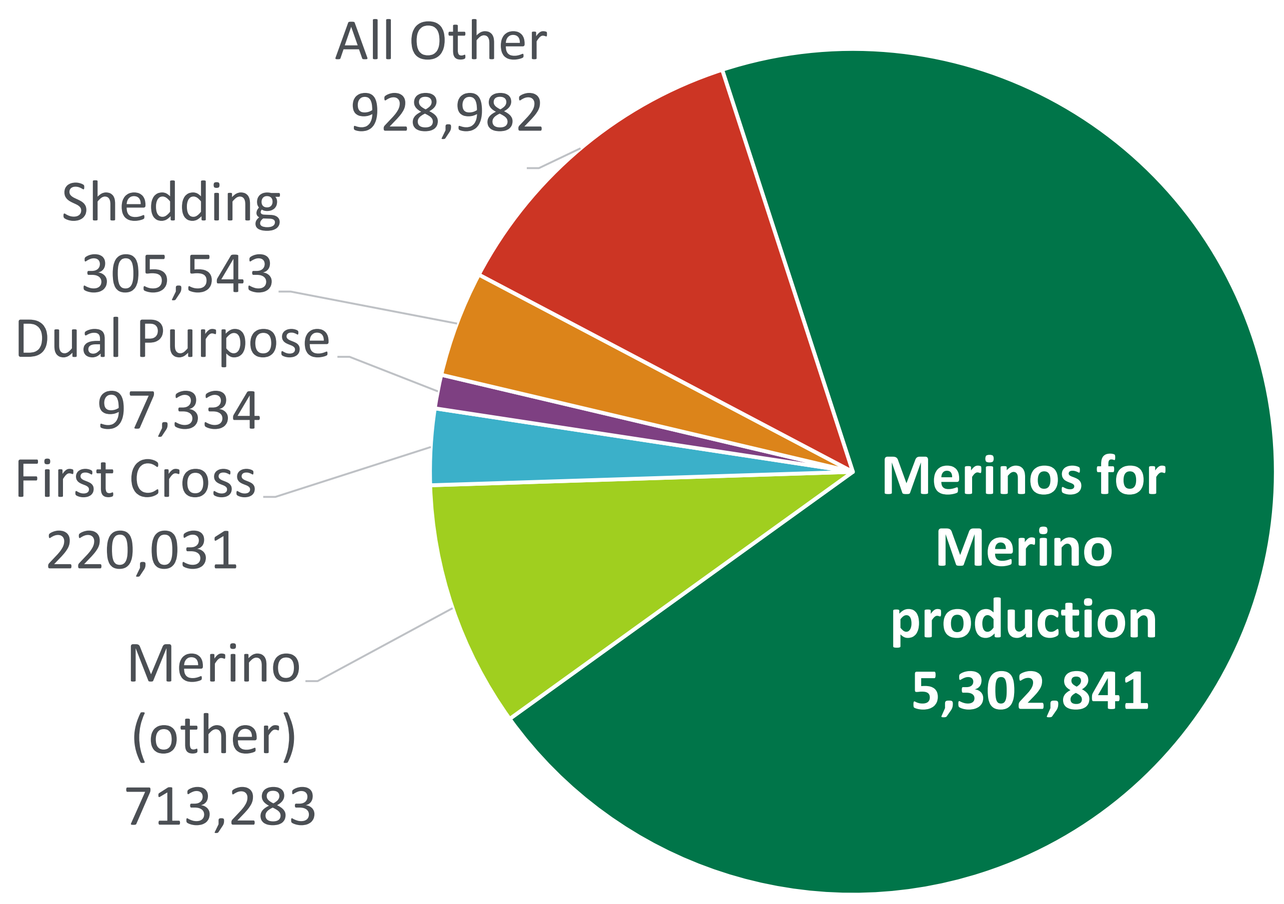
NSW is expected to account for 43% of total lamb sales over the next four months, with around 2.7 million lambs expected to be on offer. This is followed by Victoria and South Australia 23% and 18% of total lamb sales, respectively.

Sample base (properties) n=3,364

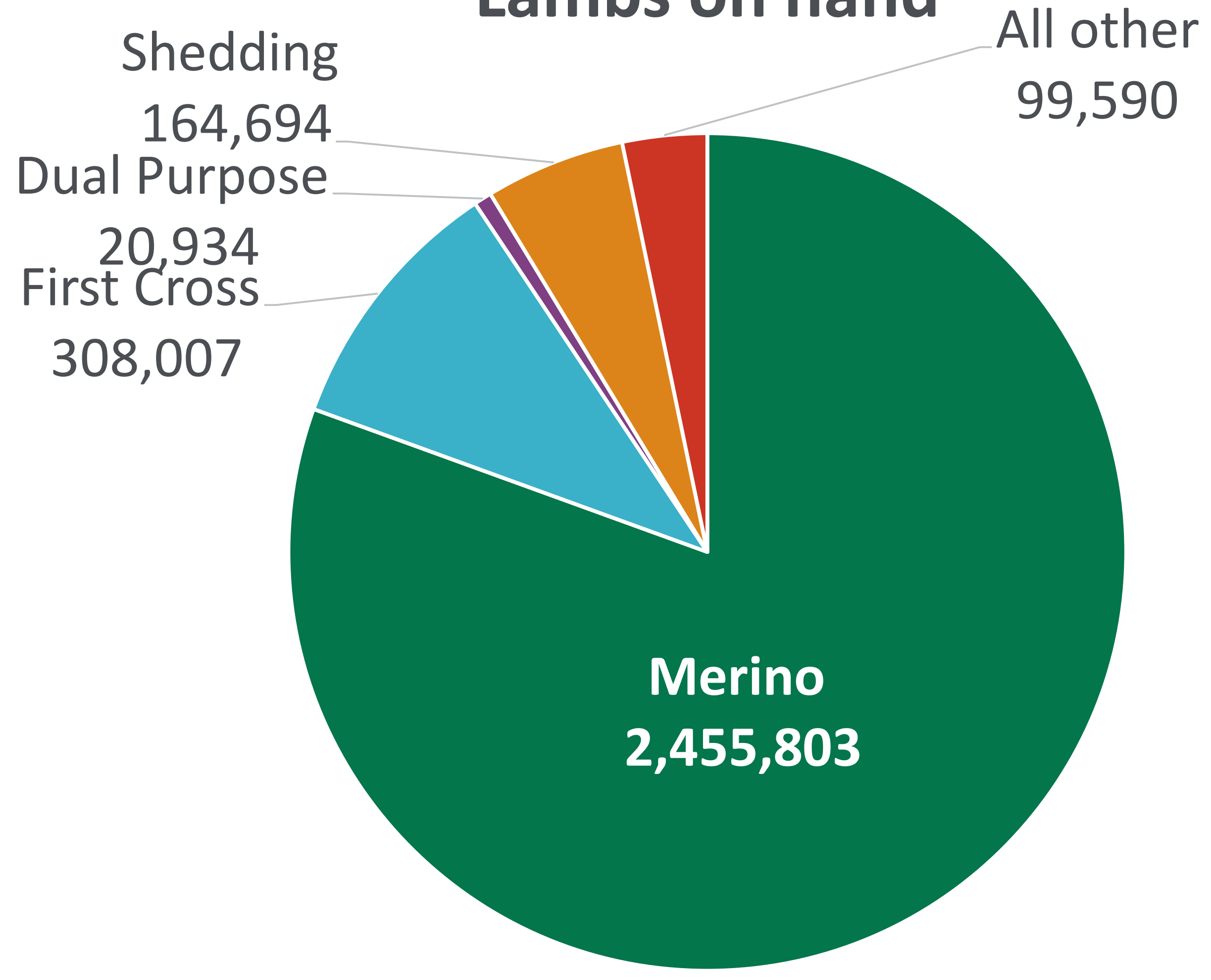
Regional Snapshots

Northern NSW/QLD

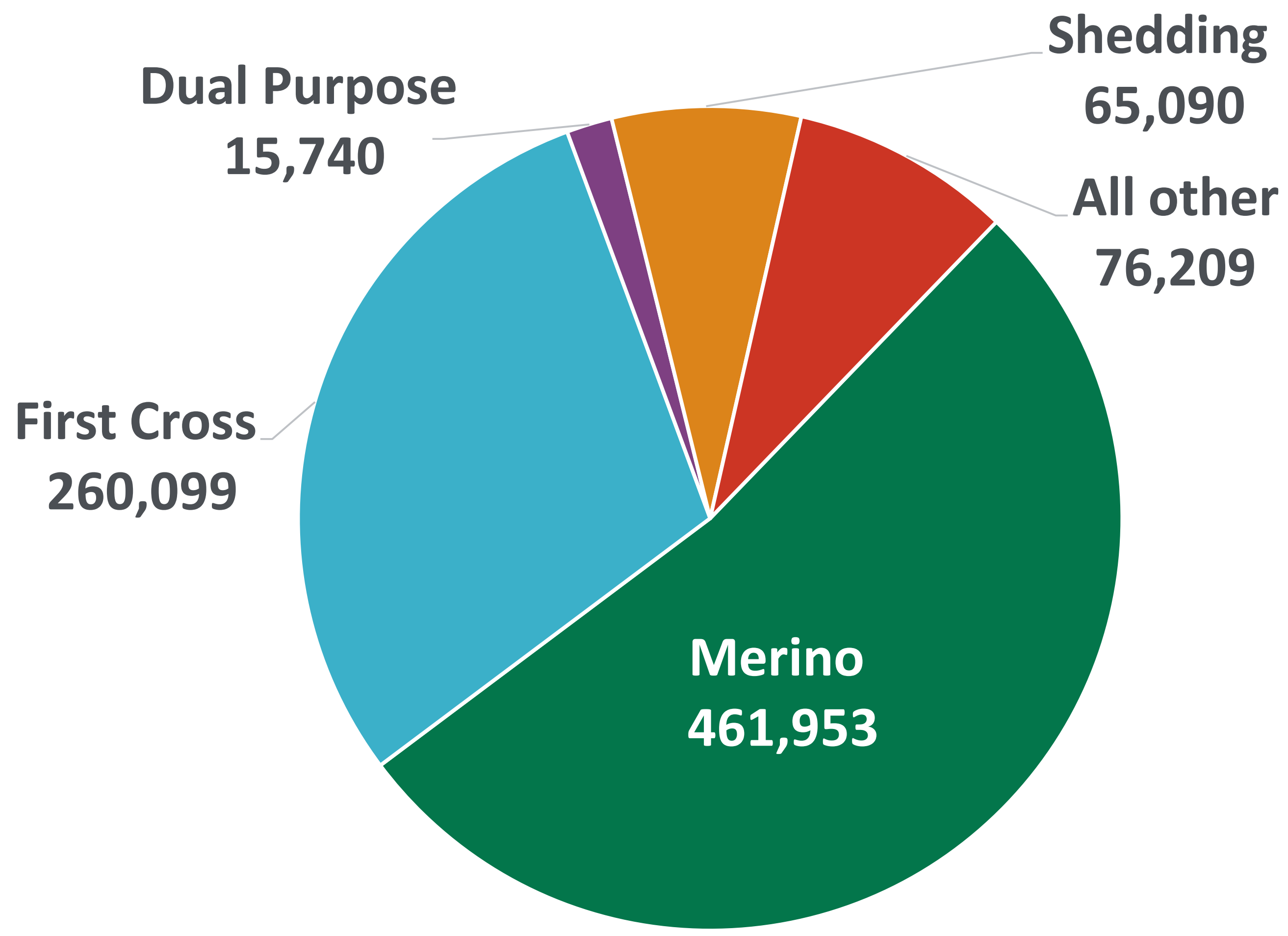
Breeding ewes on hand



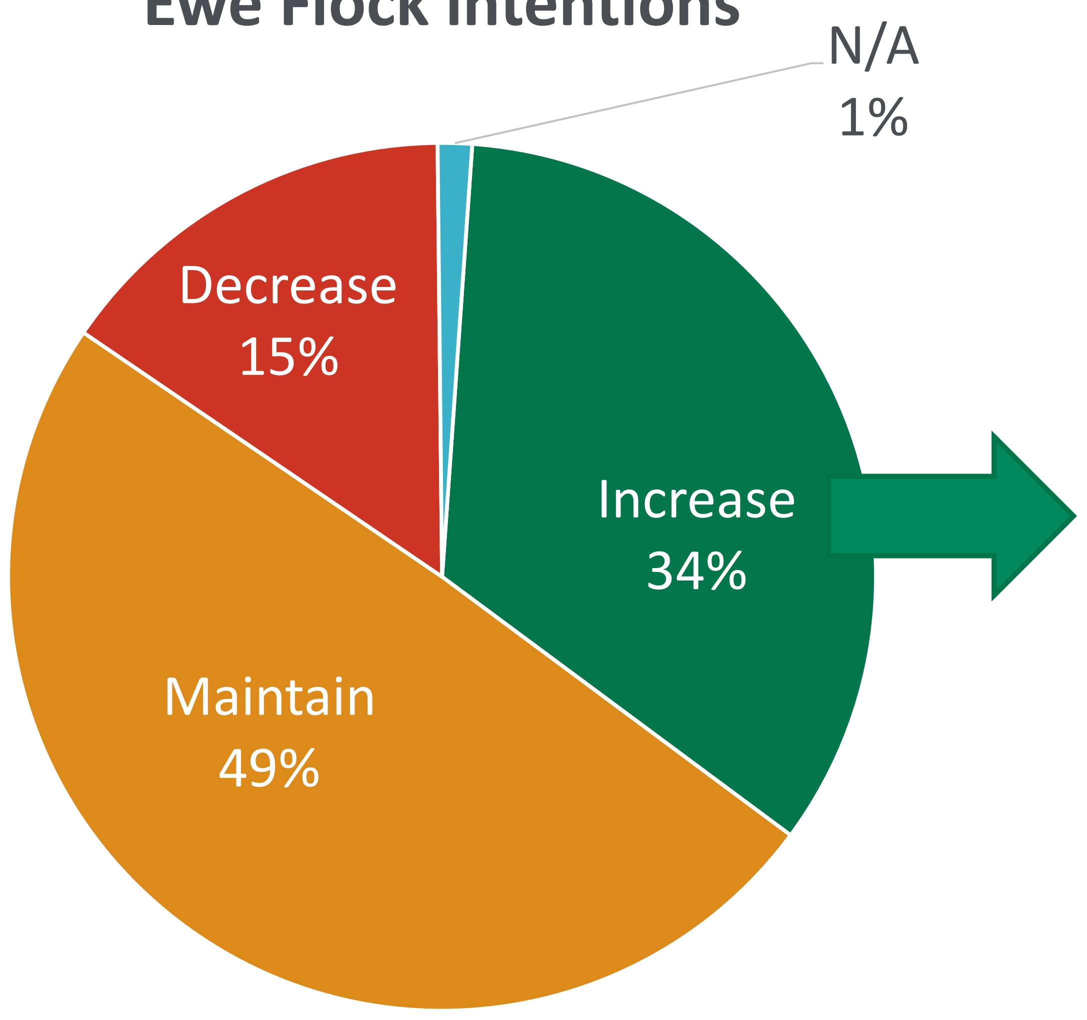
Lambs on hand



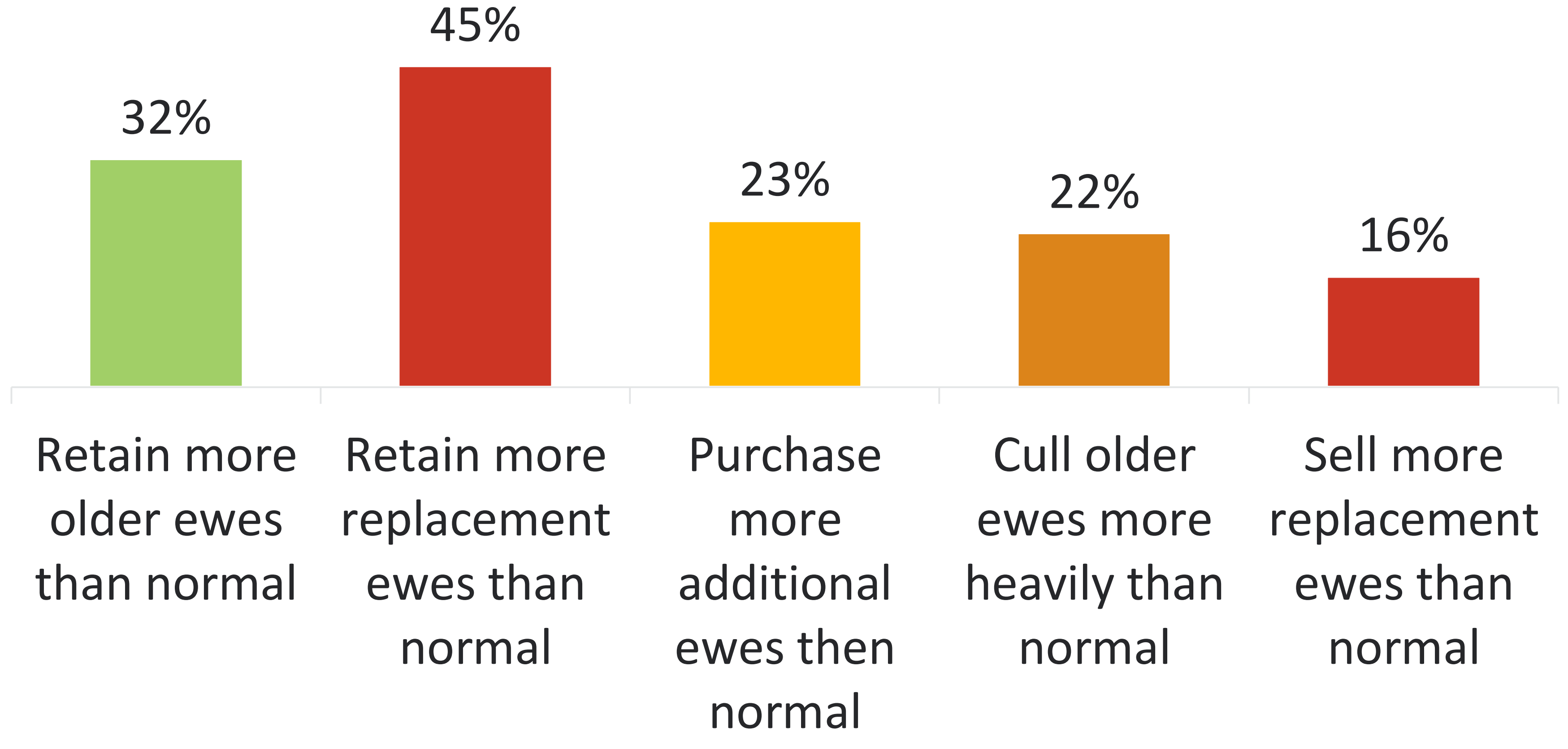
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase

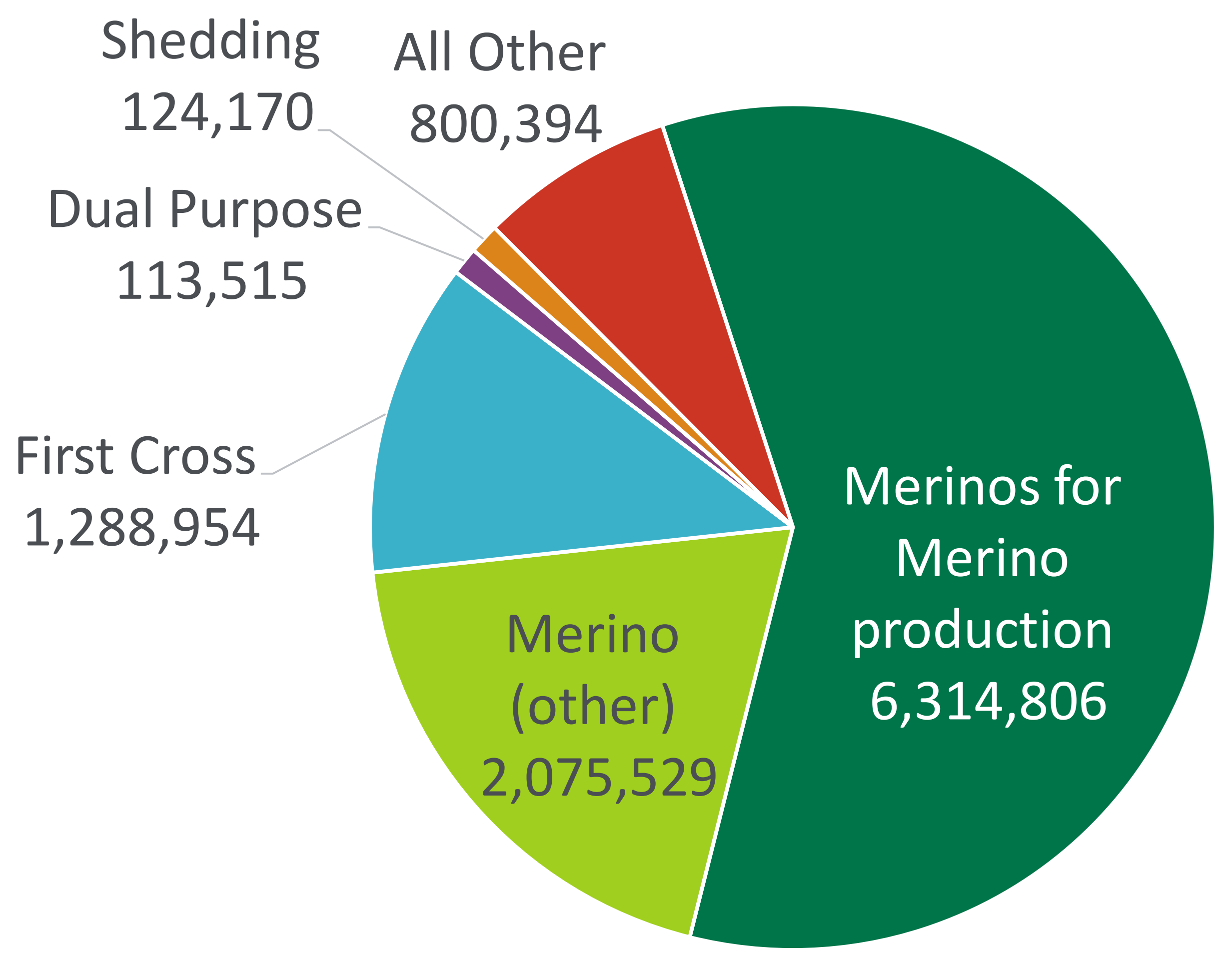


Totals

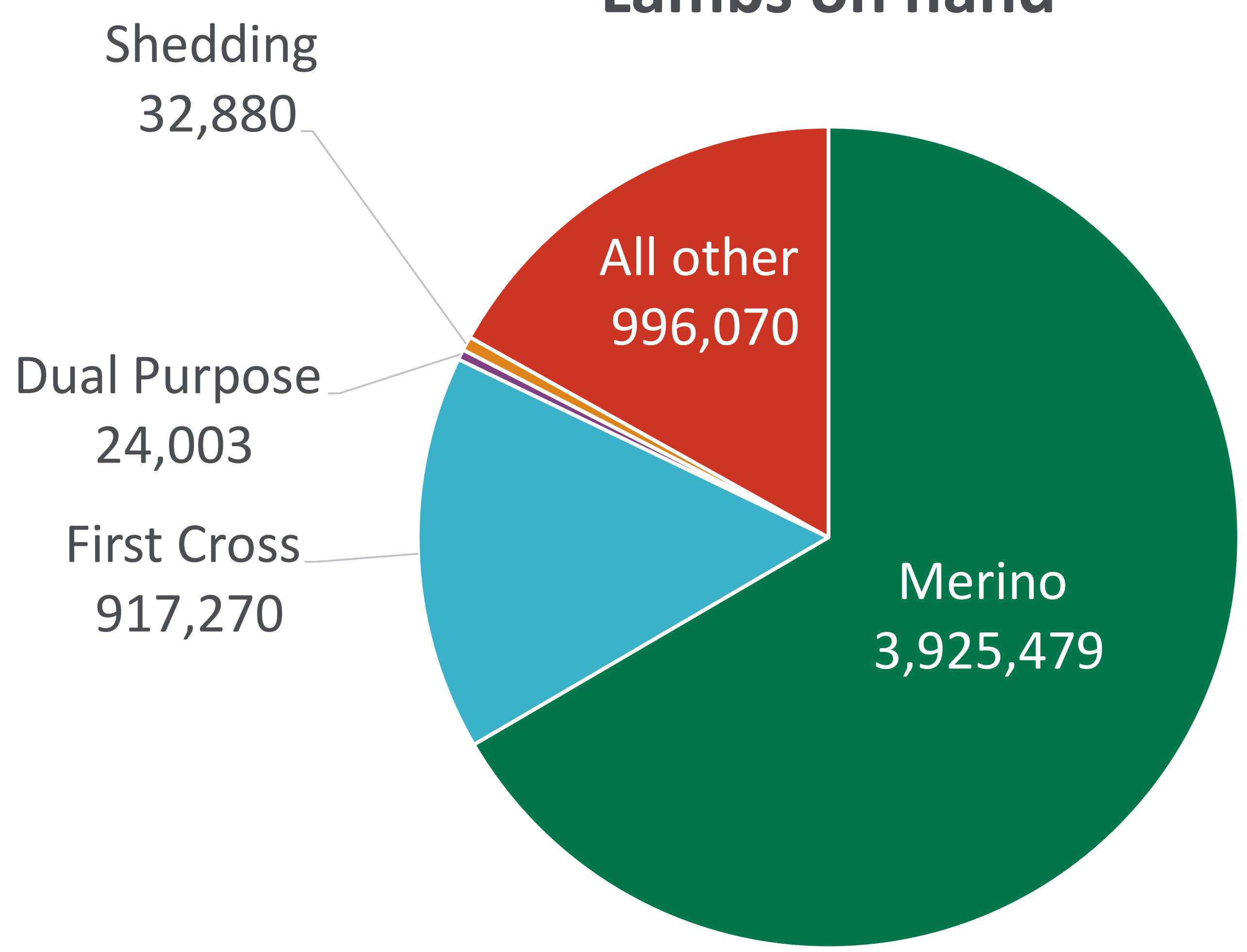
Breeding ewes on hand	7,743,690
Lambs on hand	3,049,028
Expected lamb sales in the next 4 months	879,092
Lambs marked in the past 4 months (1 Mar – 30 Jun)	639,925
Number of ewes joined to produce marked lambs	920,432

Central NSW

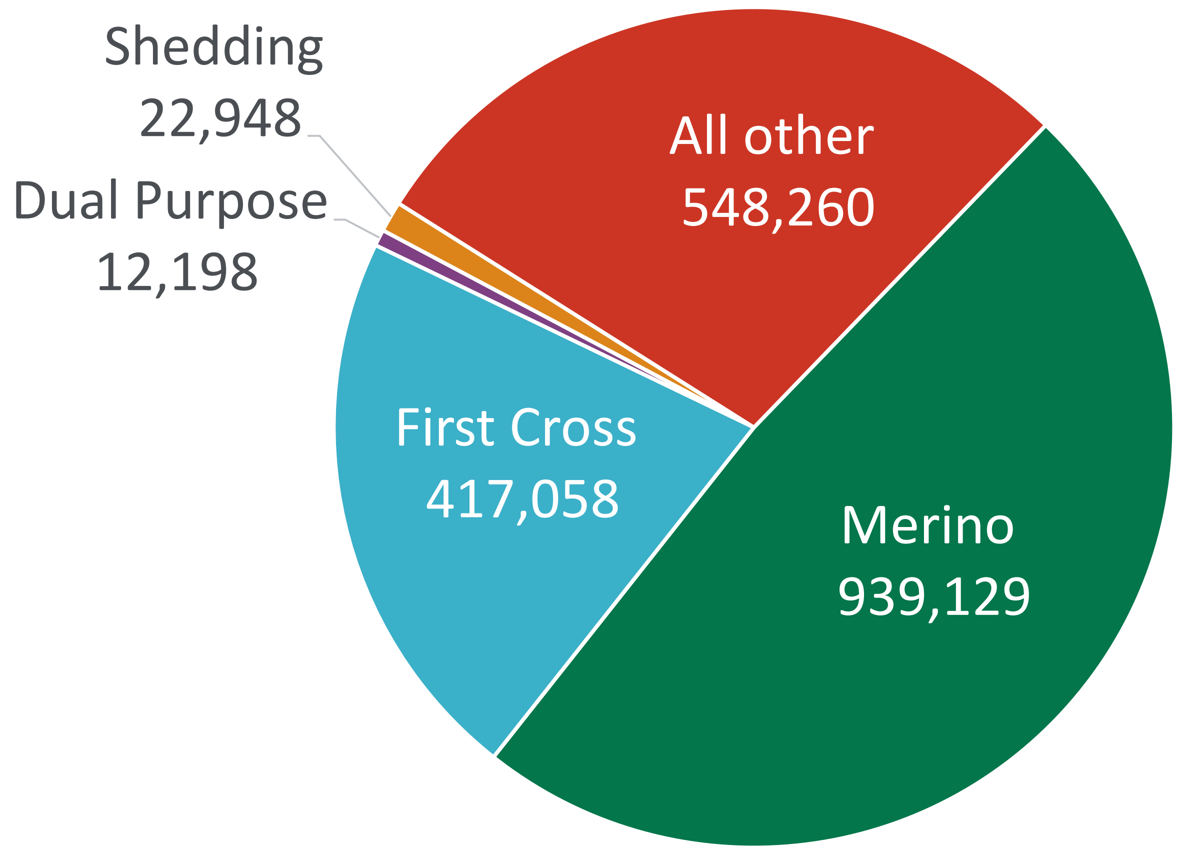
Breeding ewes on hand



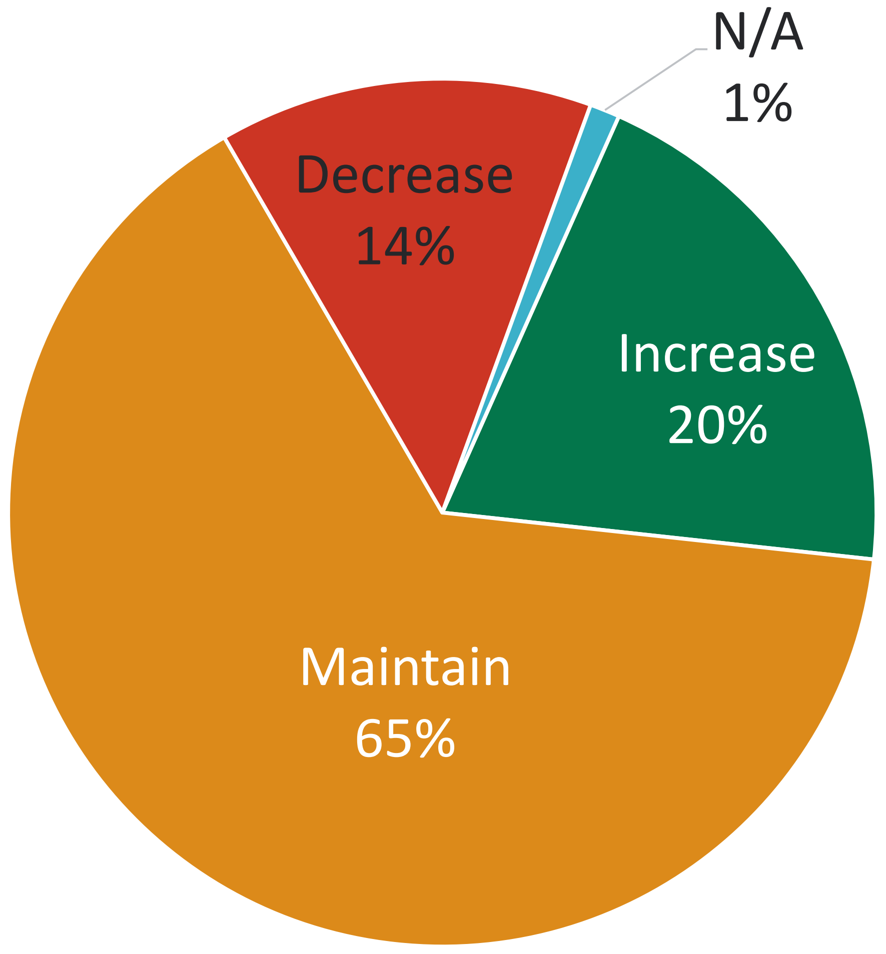
Lambs on hand



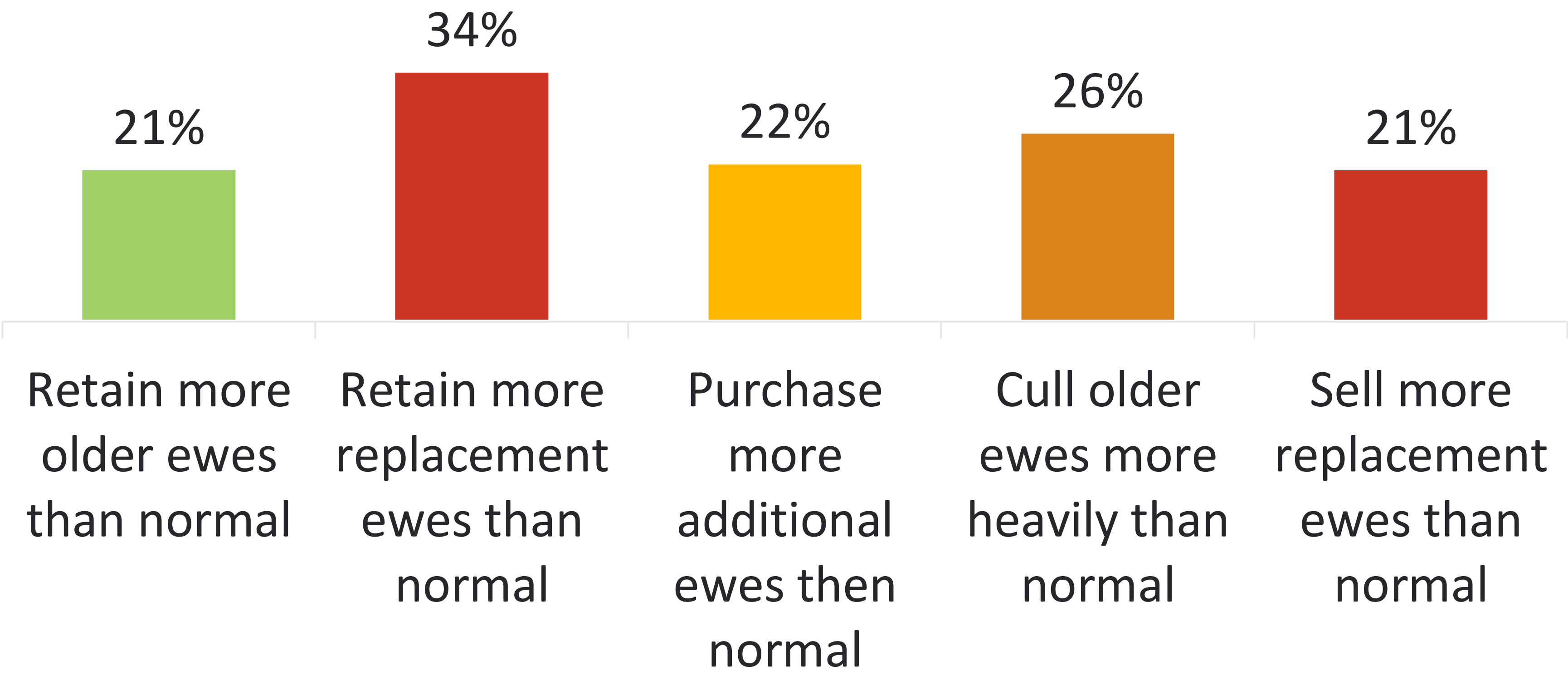
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase

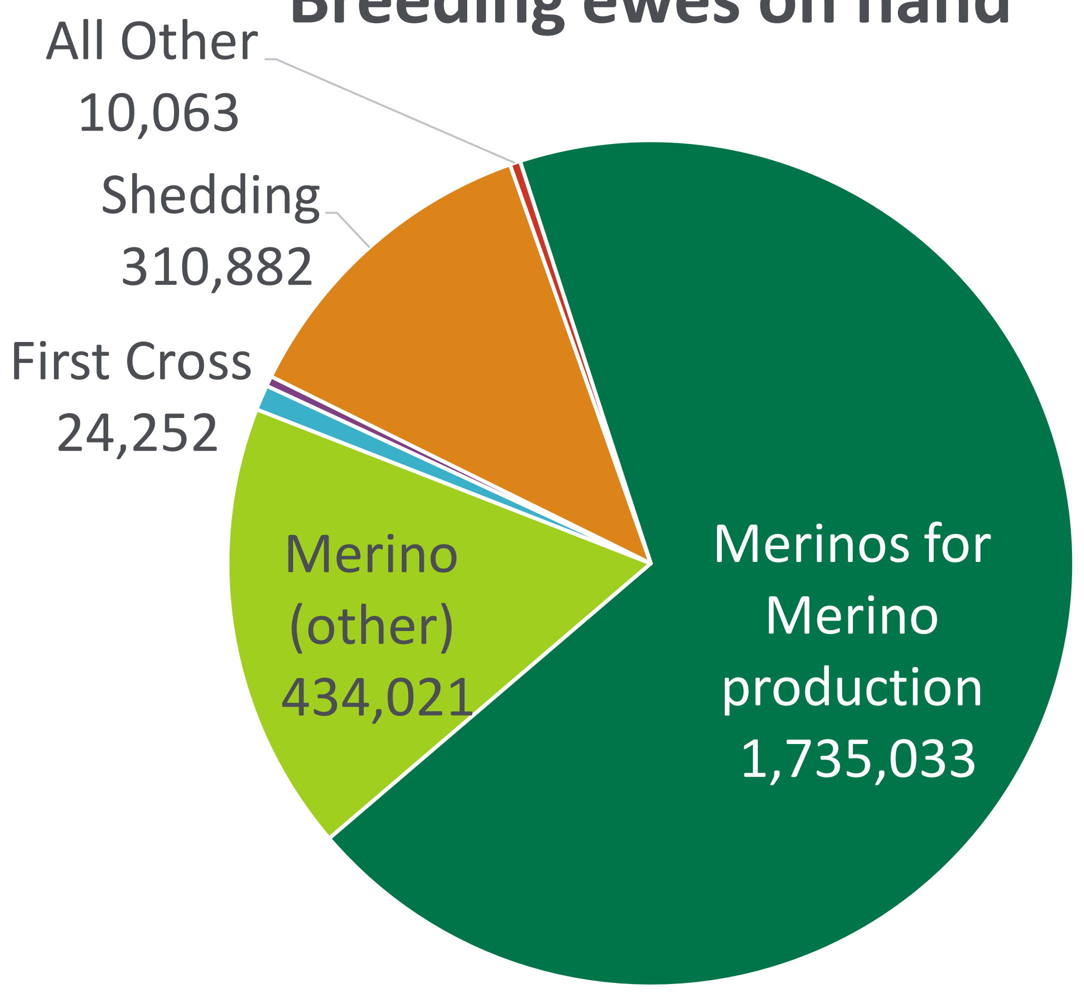


Totals

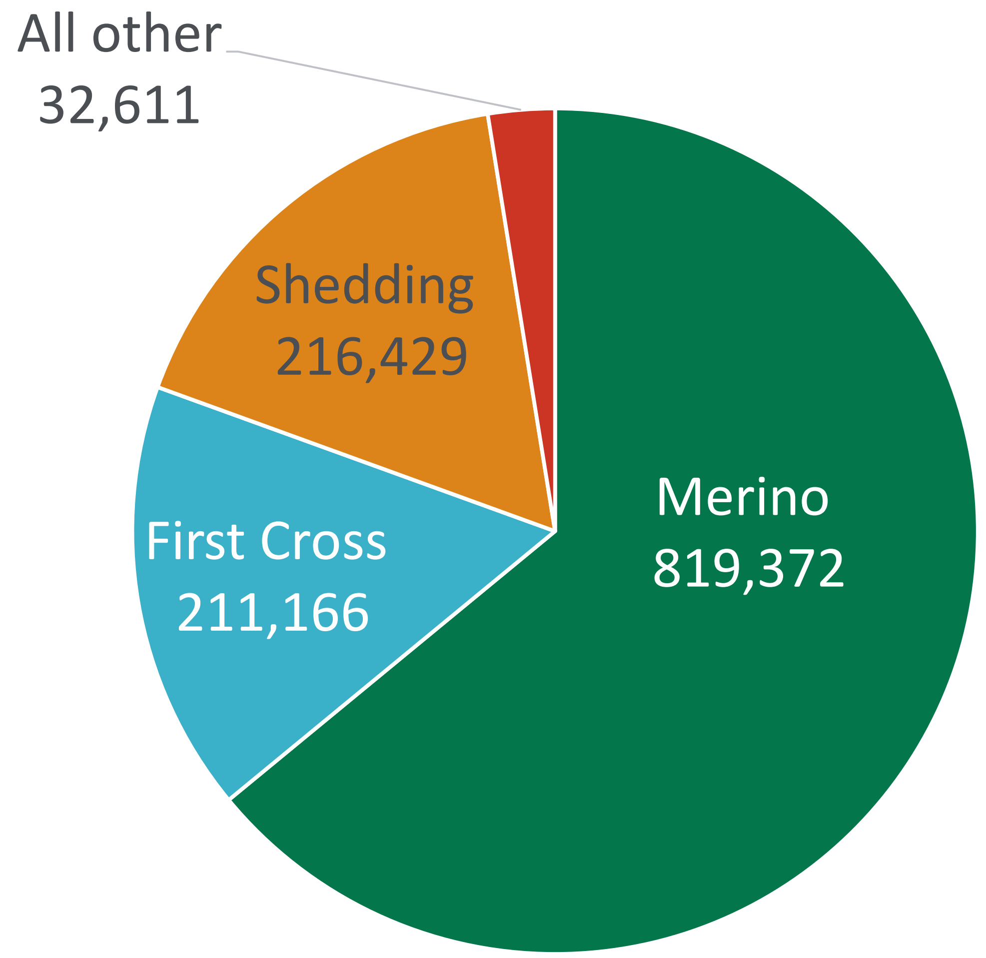
Breeding ewes on hand	10,740,763
Lambs on hand	5,895,701
Expected lamb sales in the next 4 months	1,939,594
Lambs marked in the past 4 months (1 Mar – 30 Jun)	2,145,594
Number of ewes joined to produce marked lambs	2,325,050

SA Peninsula

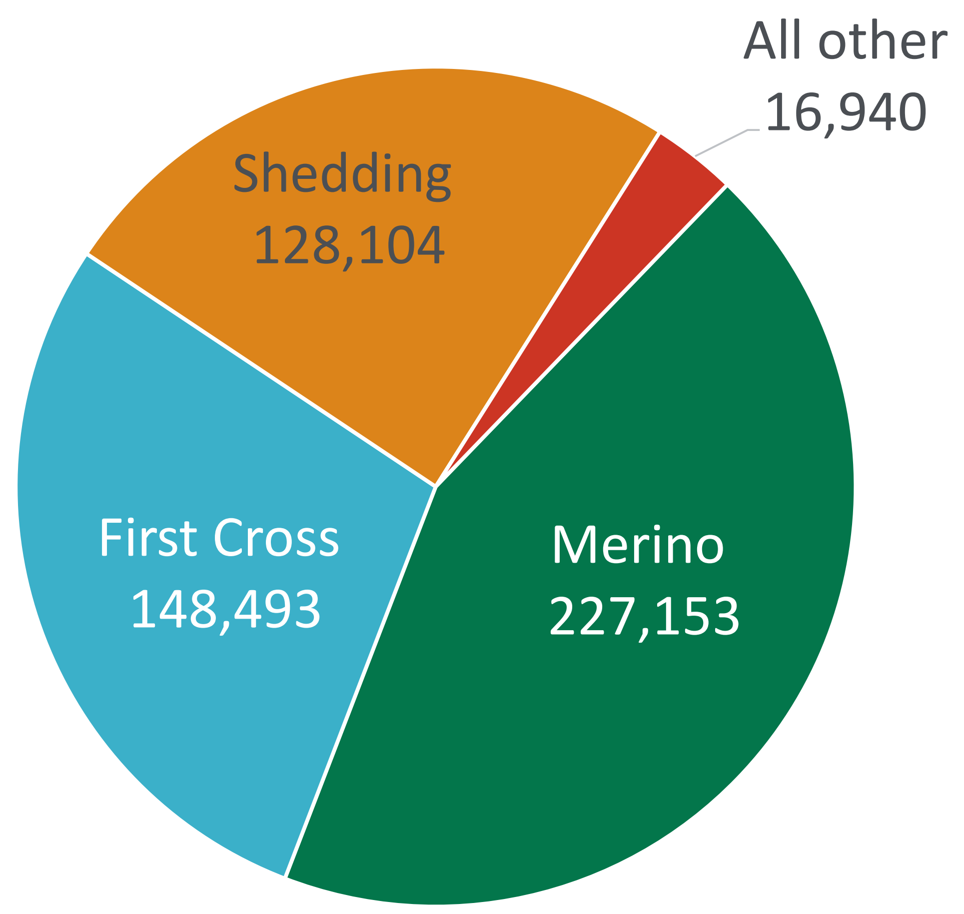
Breeding ewes on hand



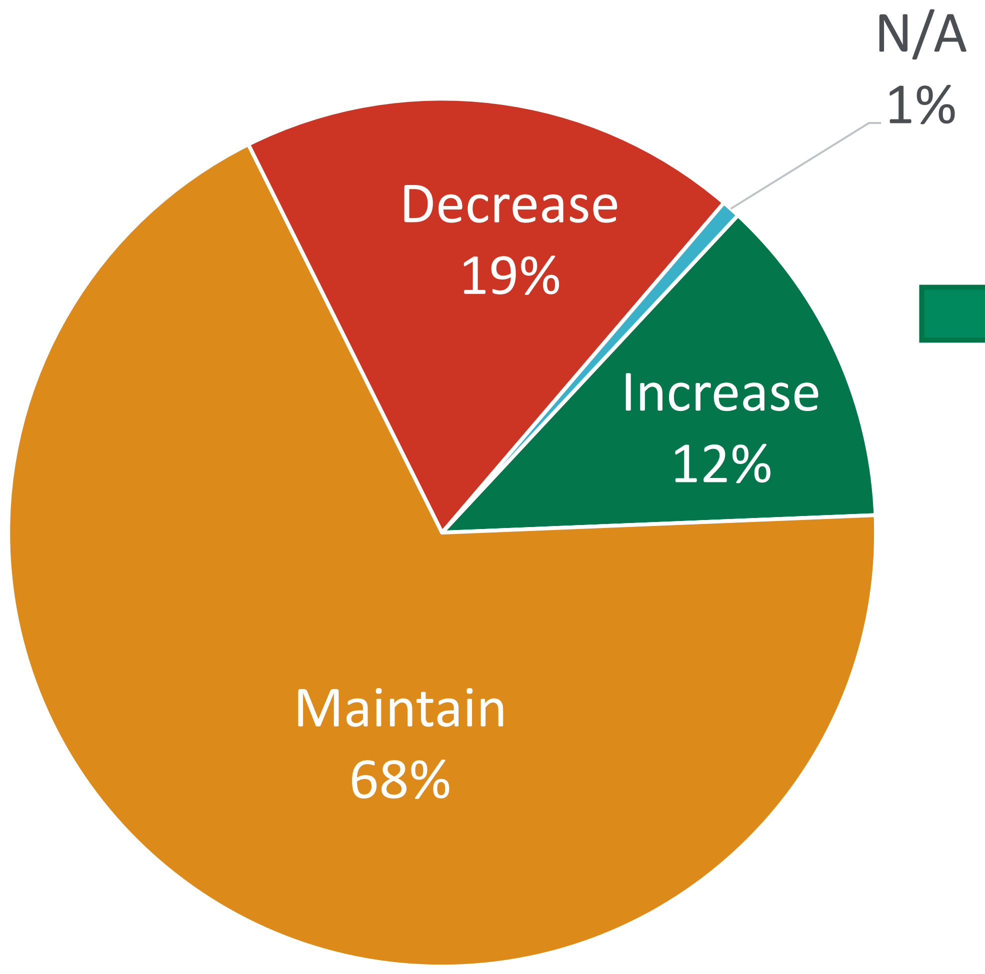
Lambs on hand



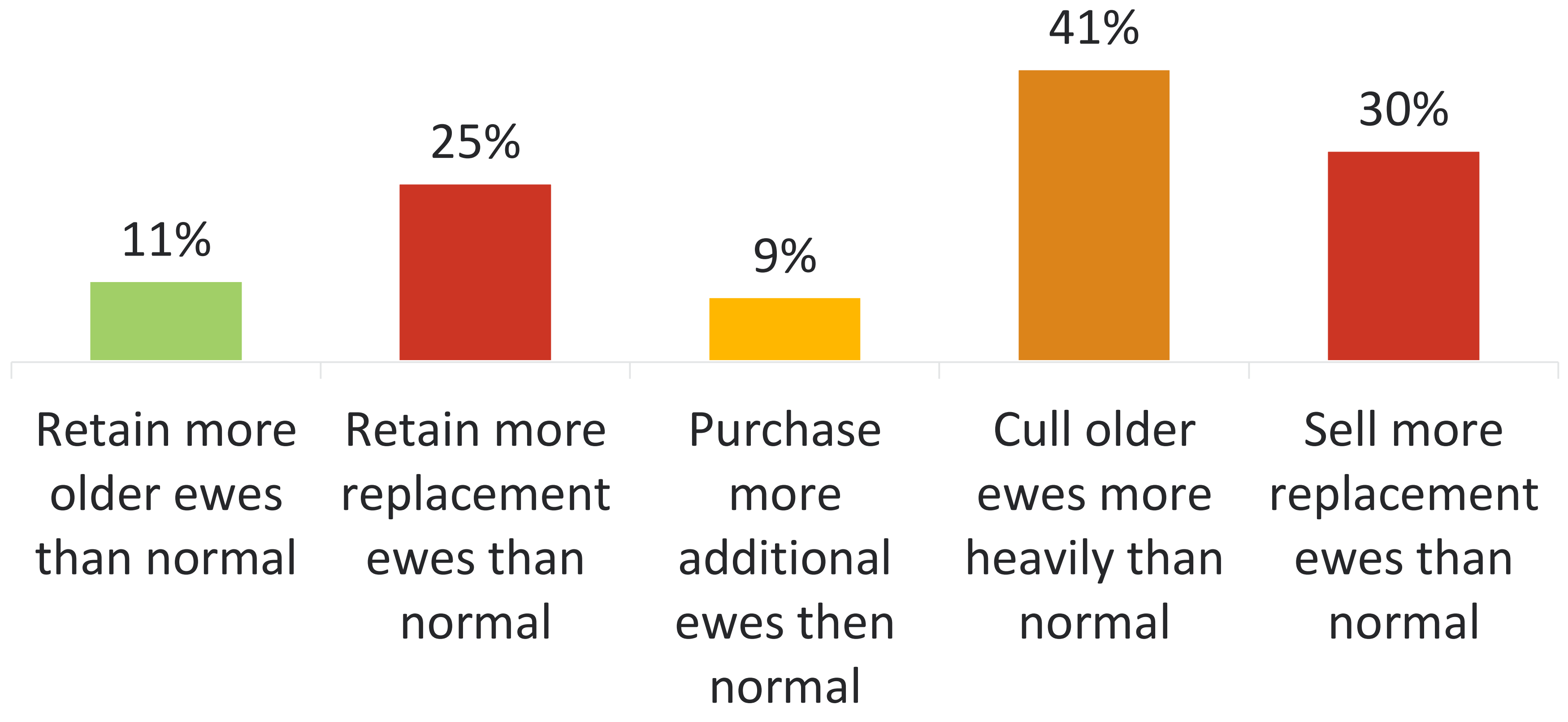
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase



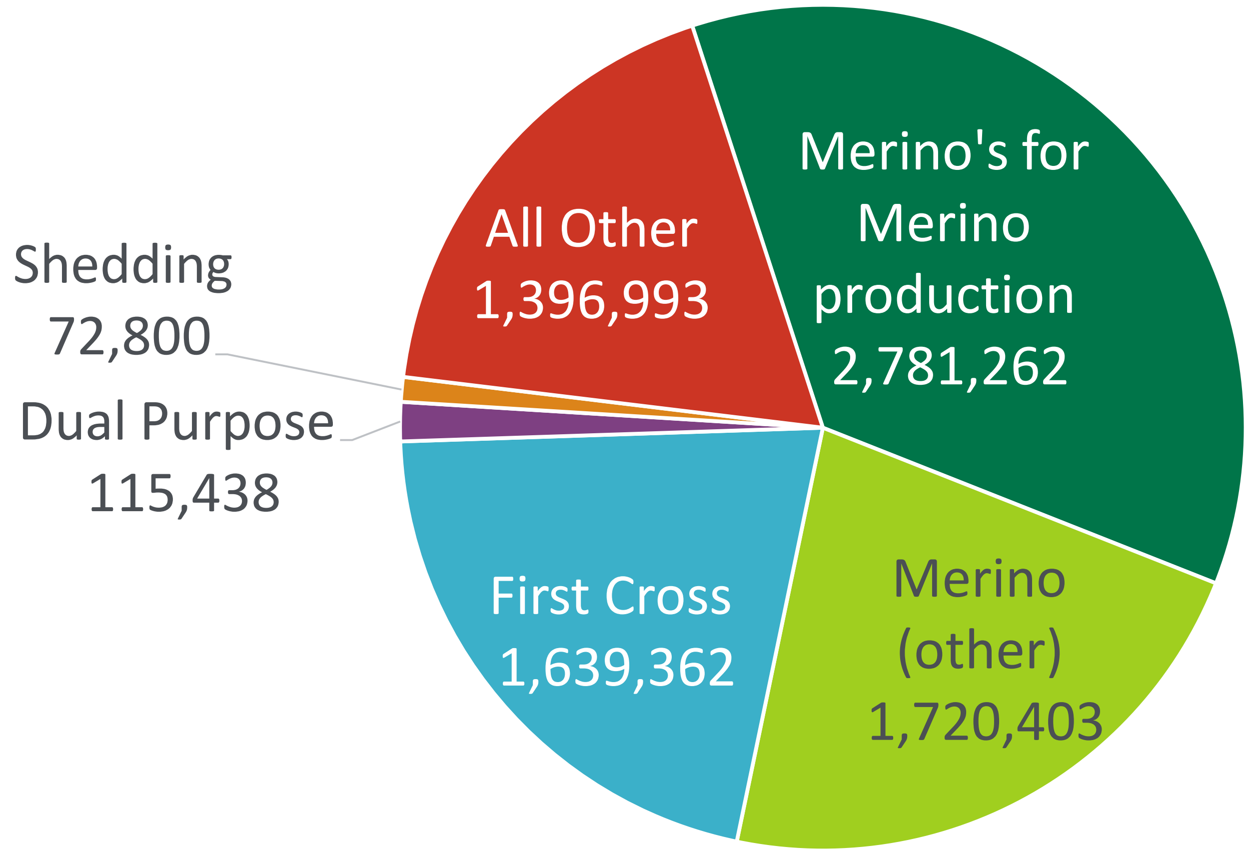
Totals

Breeding ewes on hand	2,615,034
Lambs on hand	1,279,579
Expected lamb sales in the next 4 months	520,690
Lambs marked in the past 4 months (1 Mar – 30 Jun)	453,562
Number of ewes joined to produce marked lambs	507,544

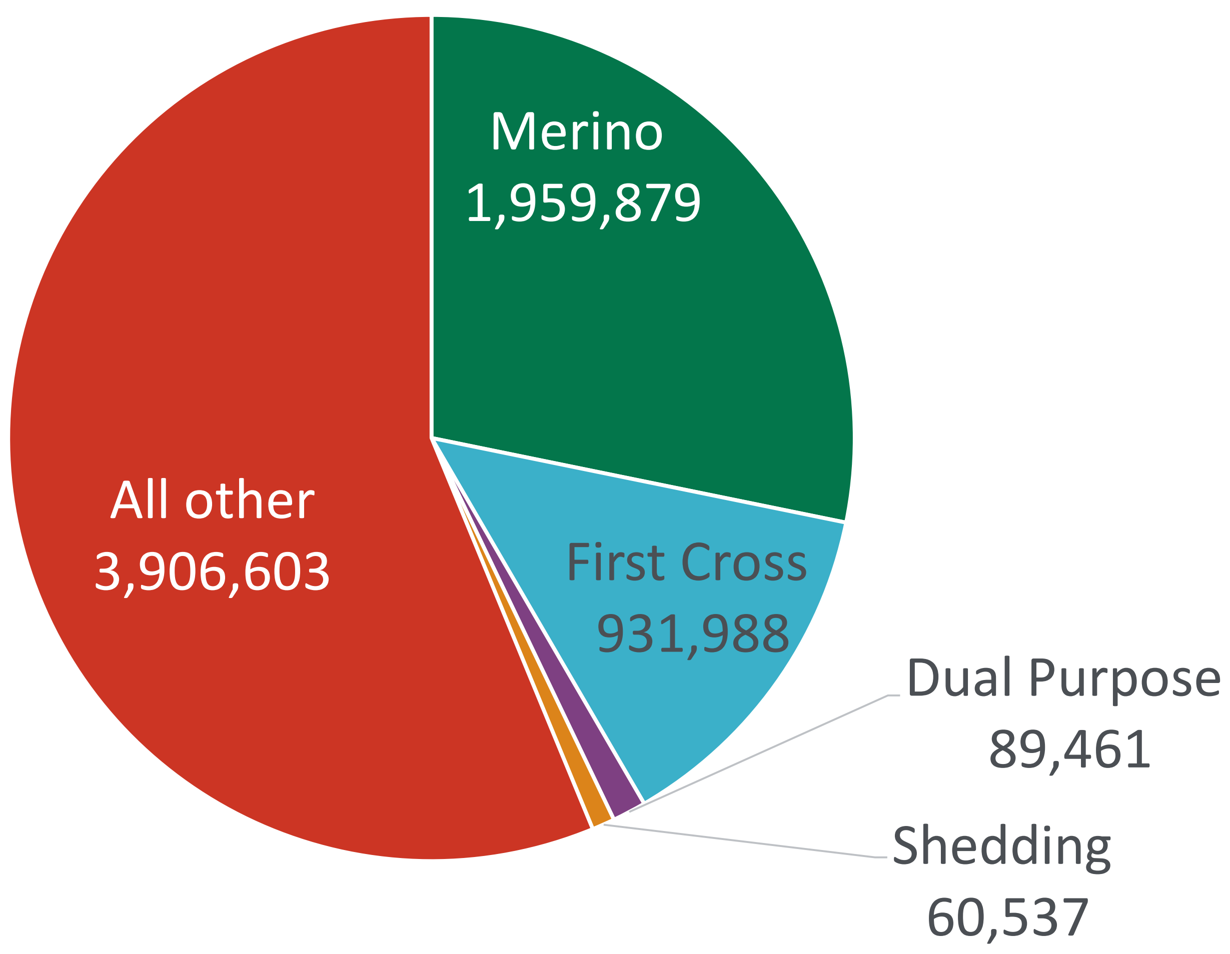
MEAT & LIVESTOCK AUSTRALIA

Wimmera Mallee Murray

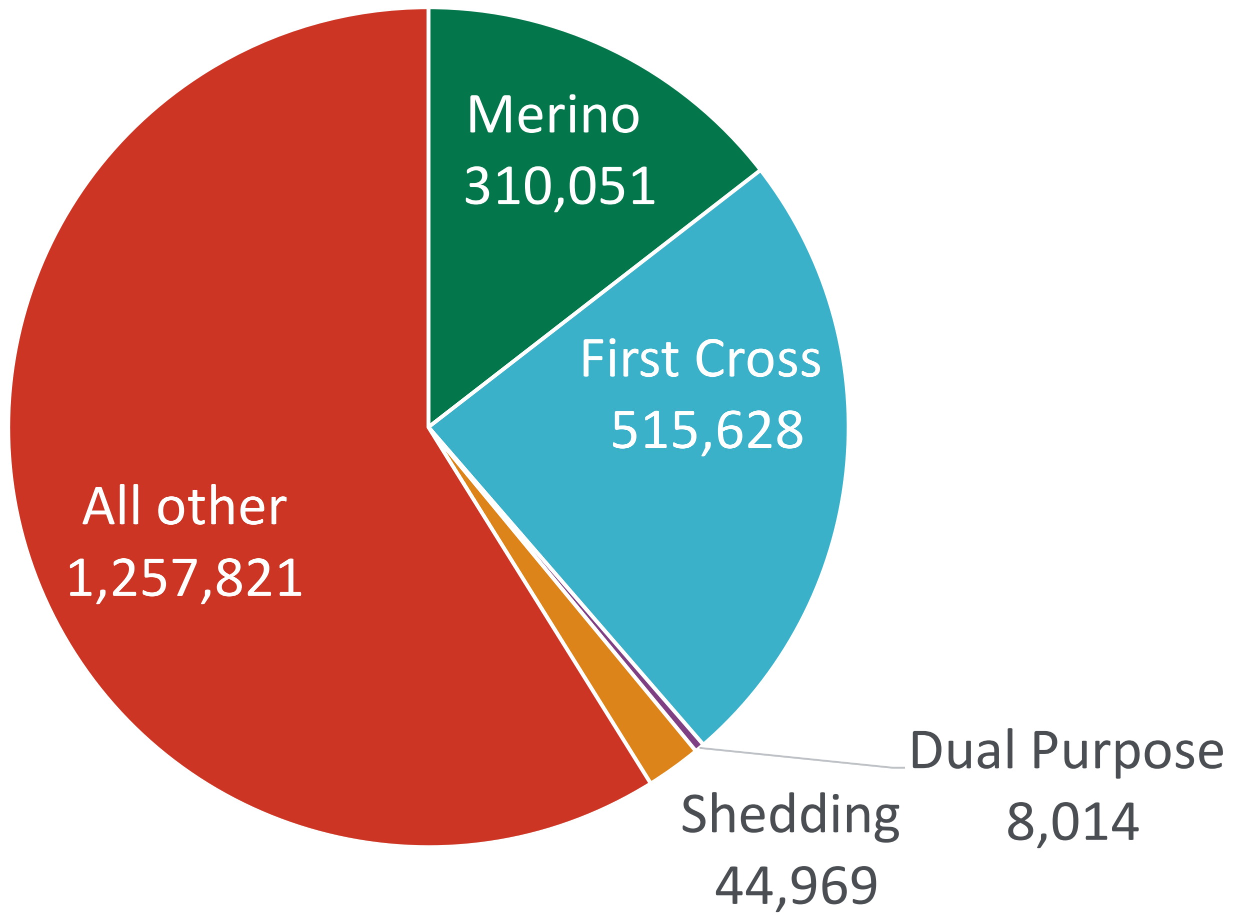
Breeding ewes on hand



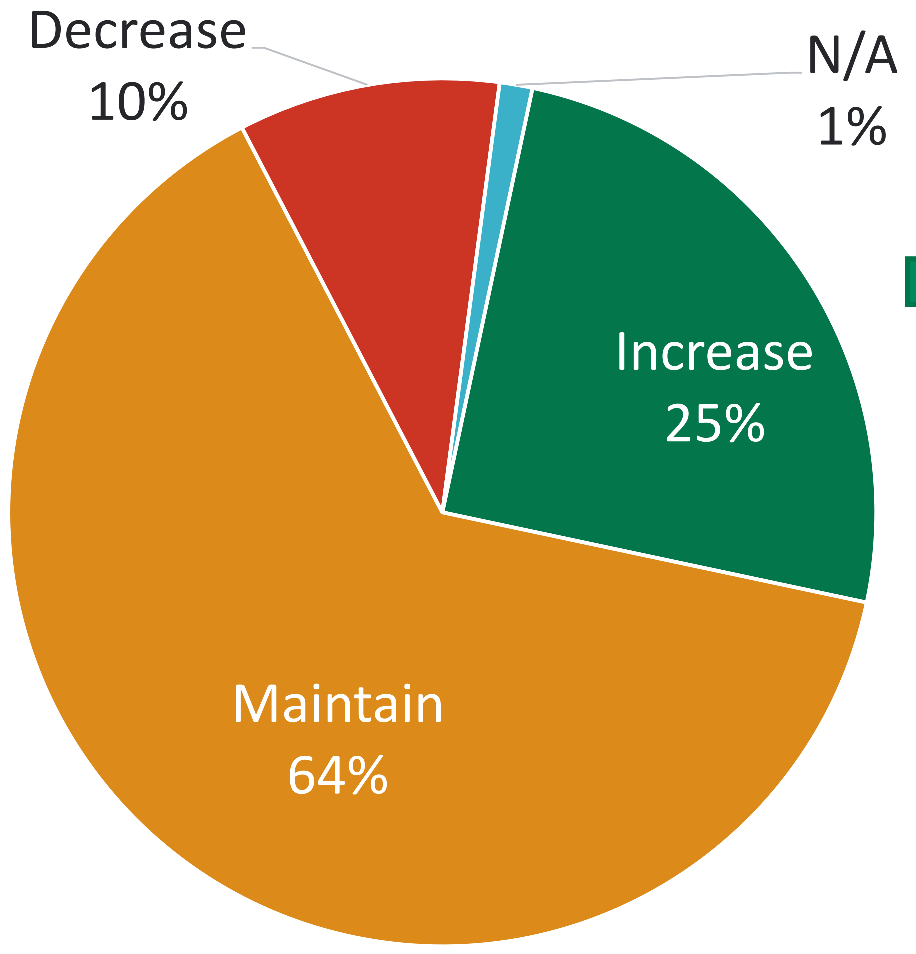
Lambs on hand



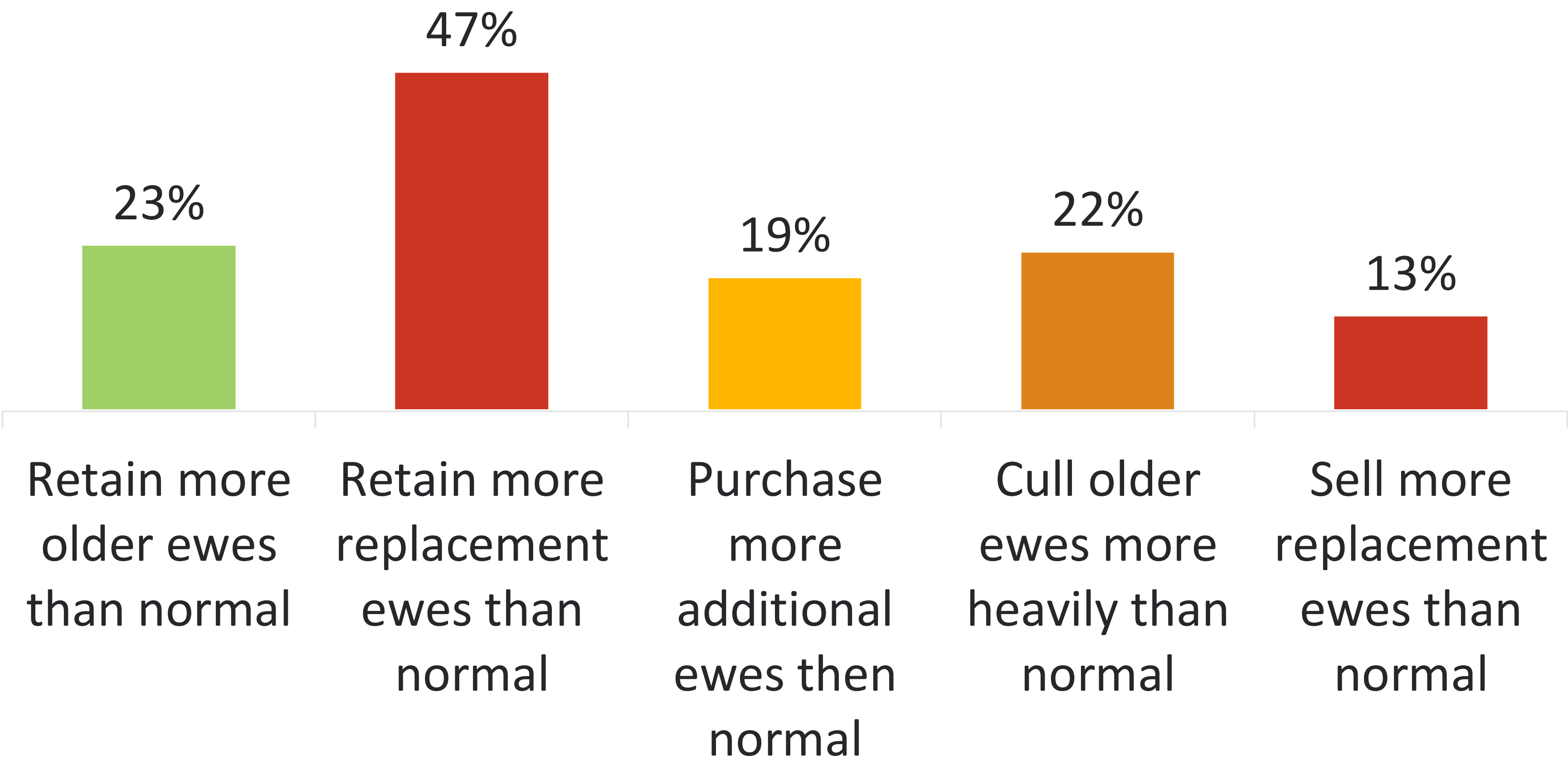
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase

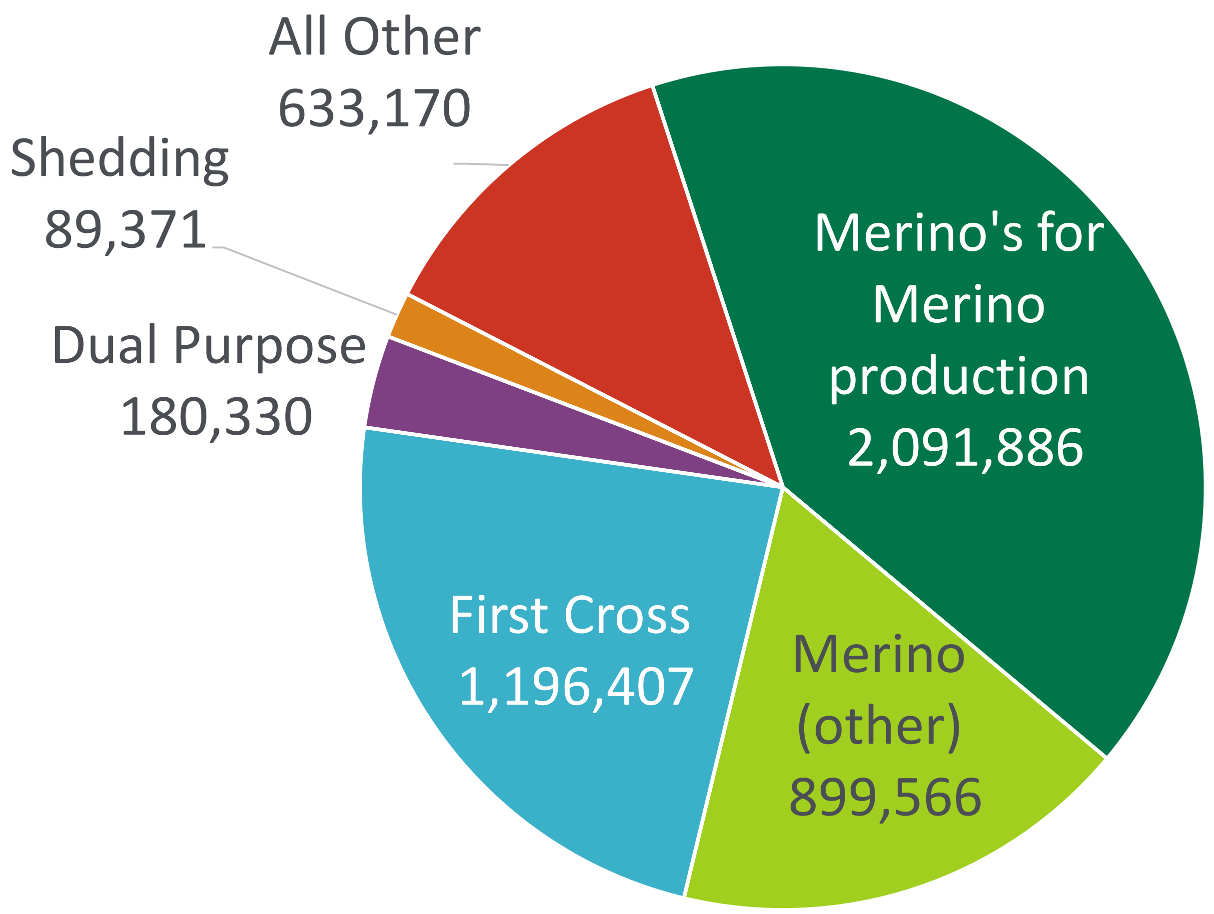


Totals

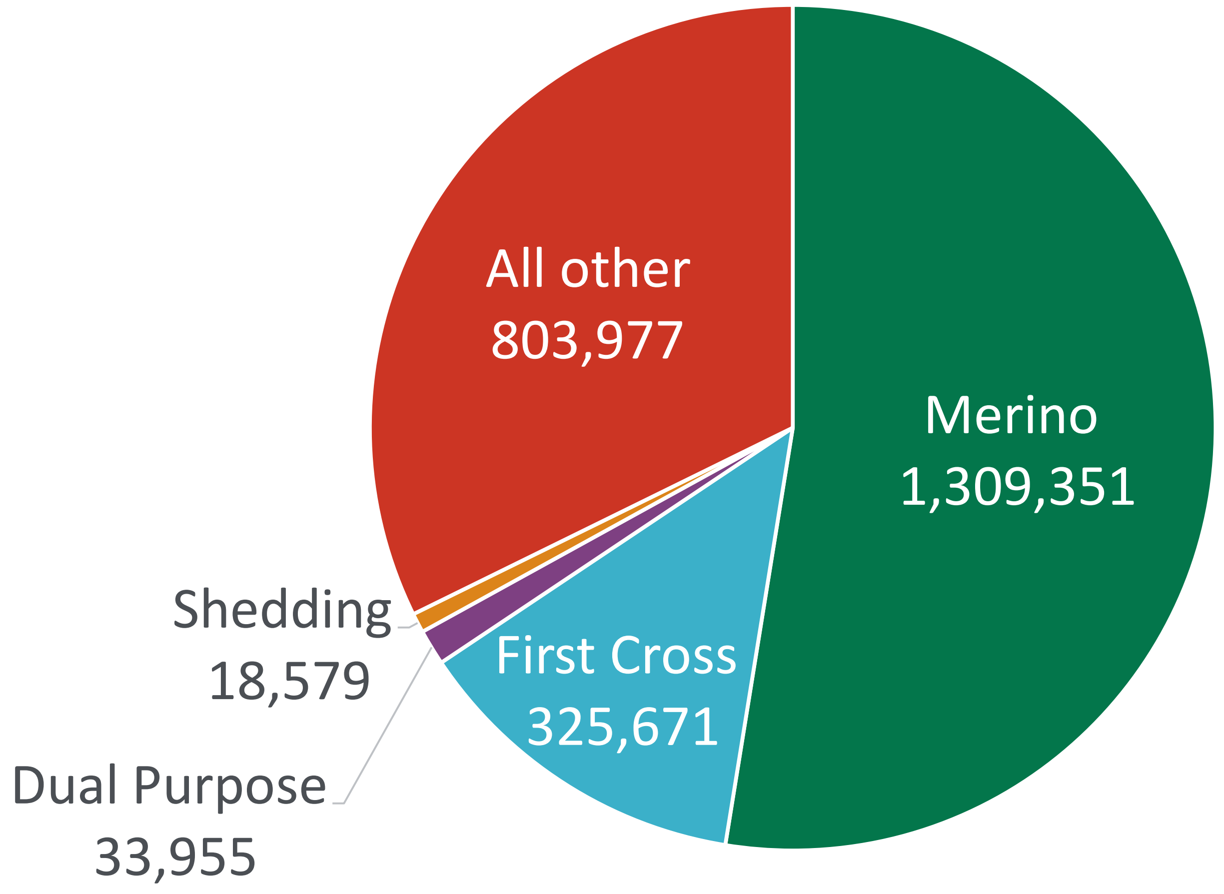
Breeding ewes on hand	7,879,597
Lambs on hand	3,906,603
Expected lamb sales in the next 4 months	1,257,821
Lambs marked in the past 4 months (1 Mar – 30 Jun)	1,540,088
Number of ewes joined to produce marked lambs	1,642,279

East Victoria

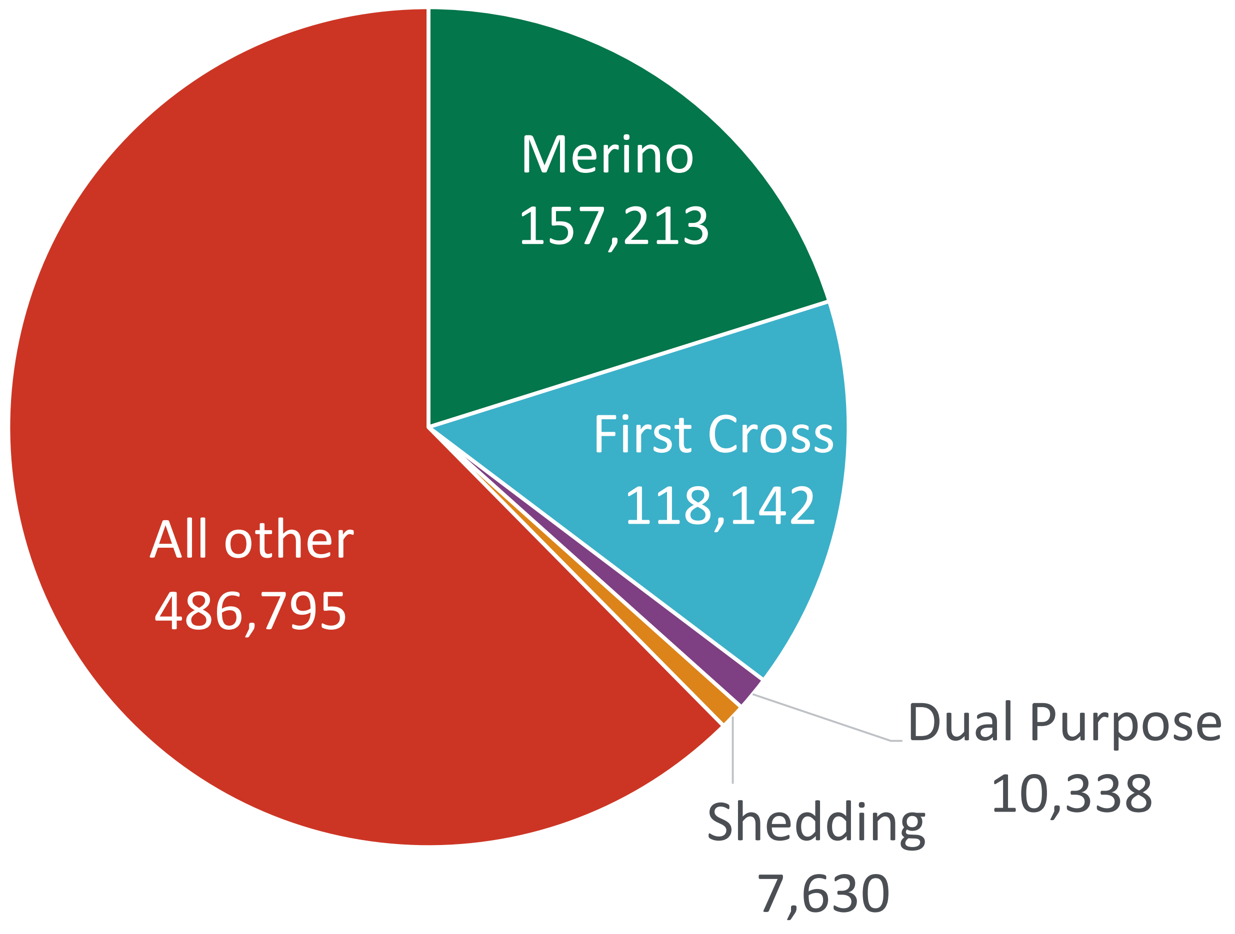
Breeding ewes on hand



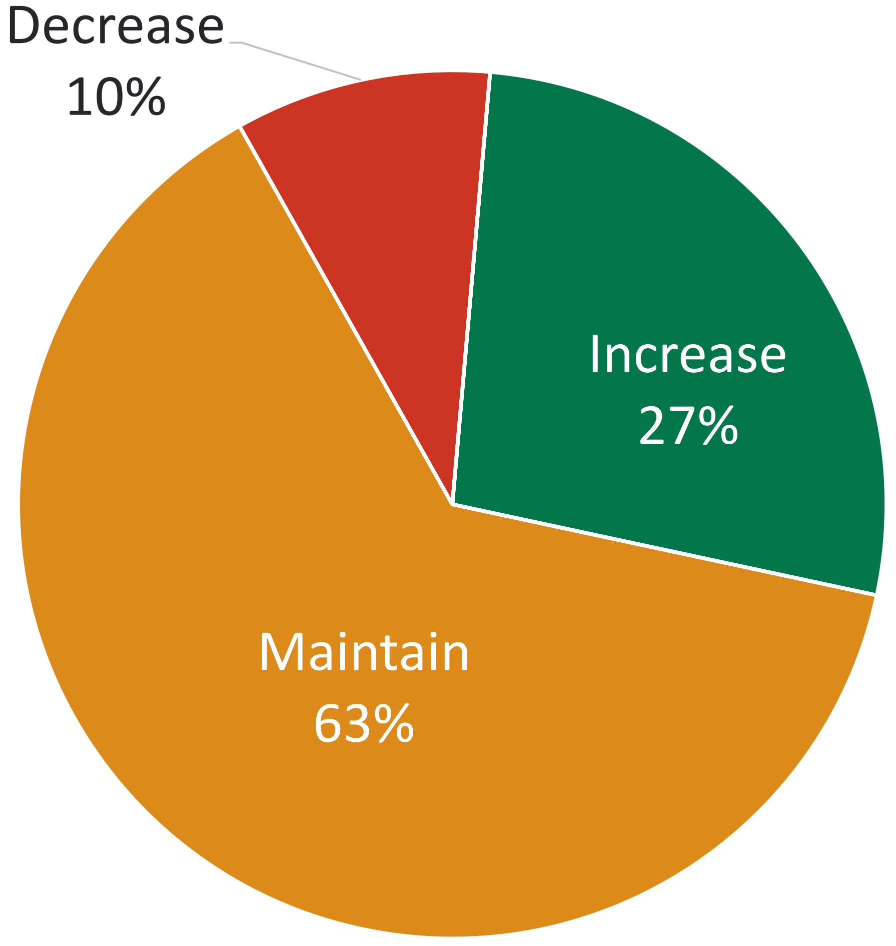
Lambs on hand



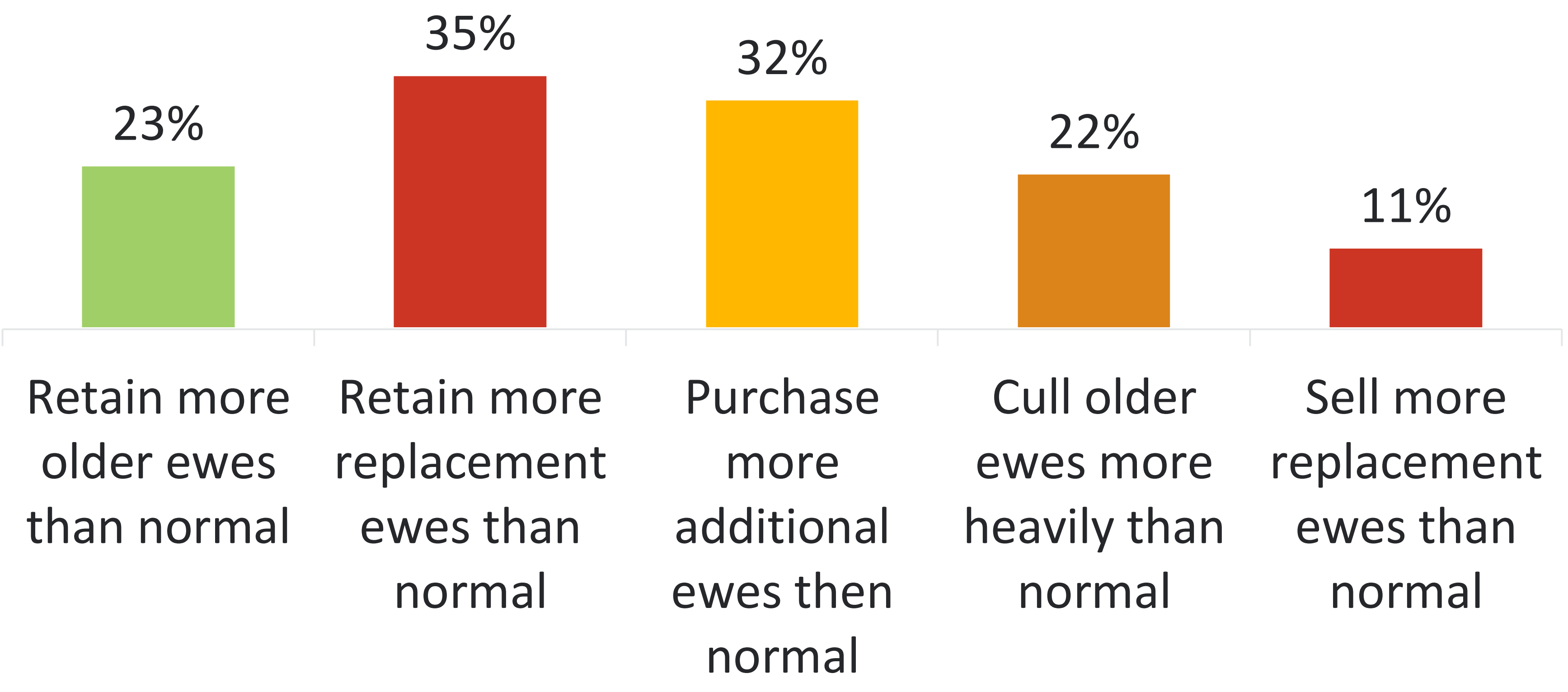
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase

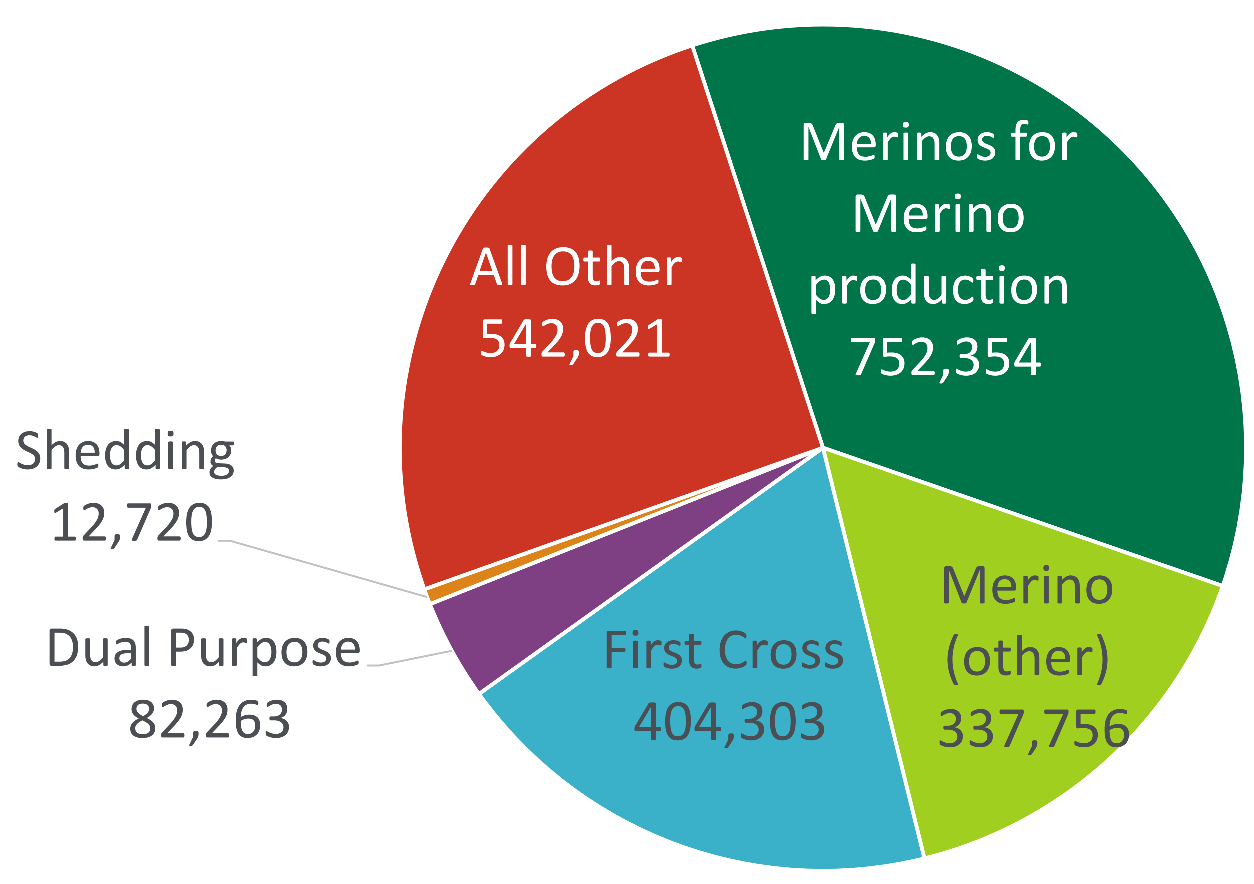


Totals

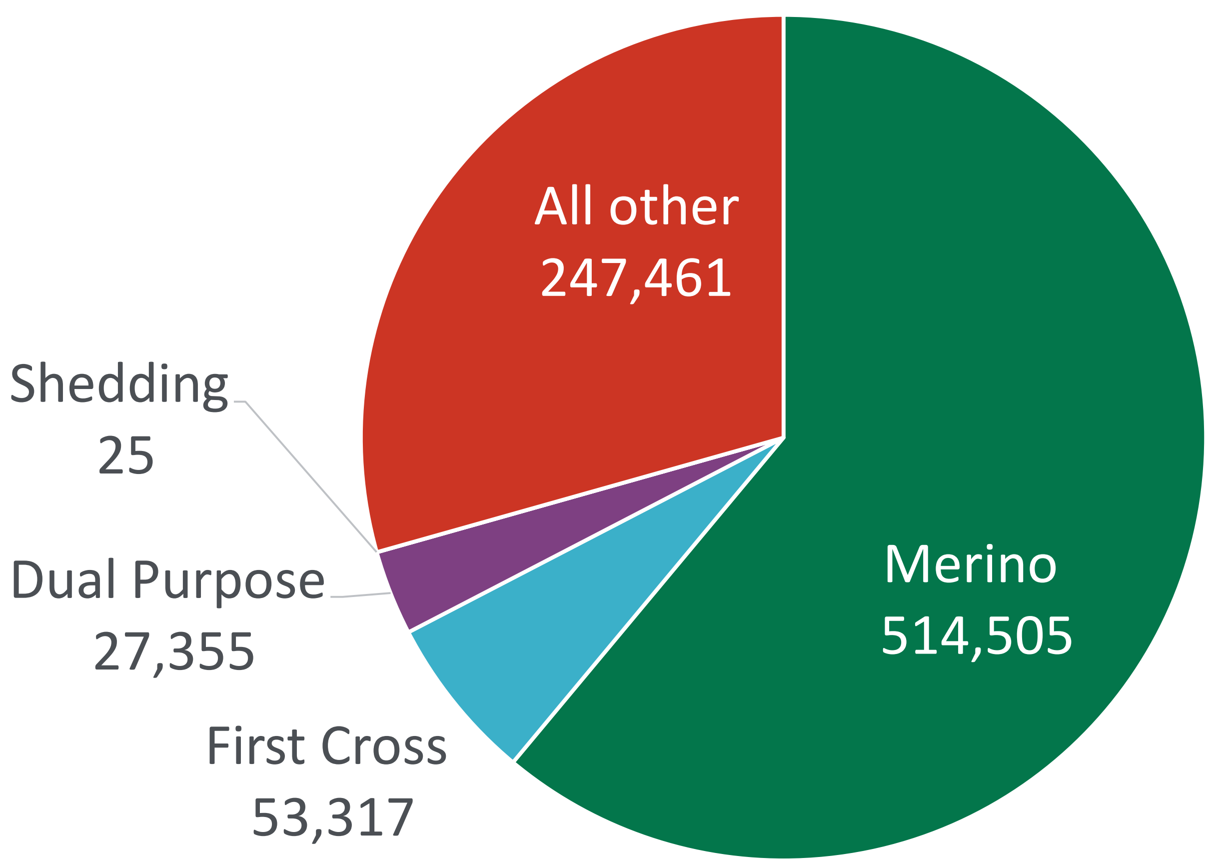
Breeding ewes on hand	5,156,250
Lambs on hand	2,491,532
Expected lamb sales in the next 4 months	780,118
Lambs marked in the past 4 months (1 Mar – 30 Jun)	1,079,882
Number of ewes joined to produce marked lambs	1,077,698

Tasmania

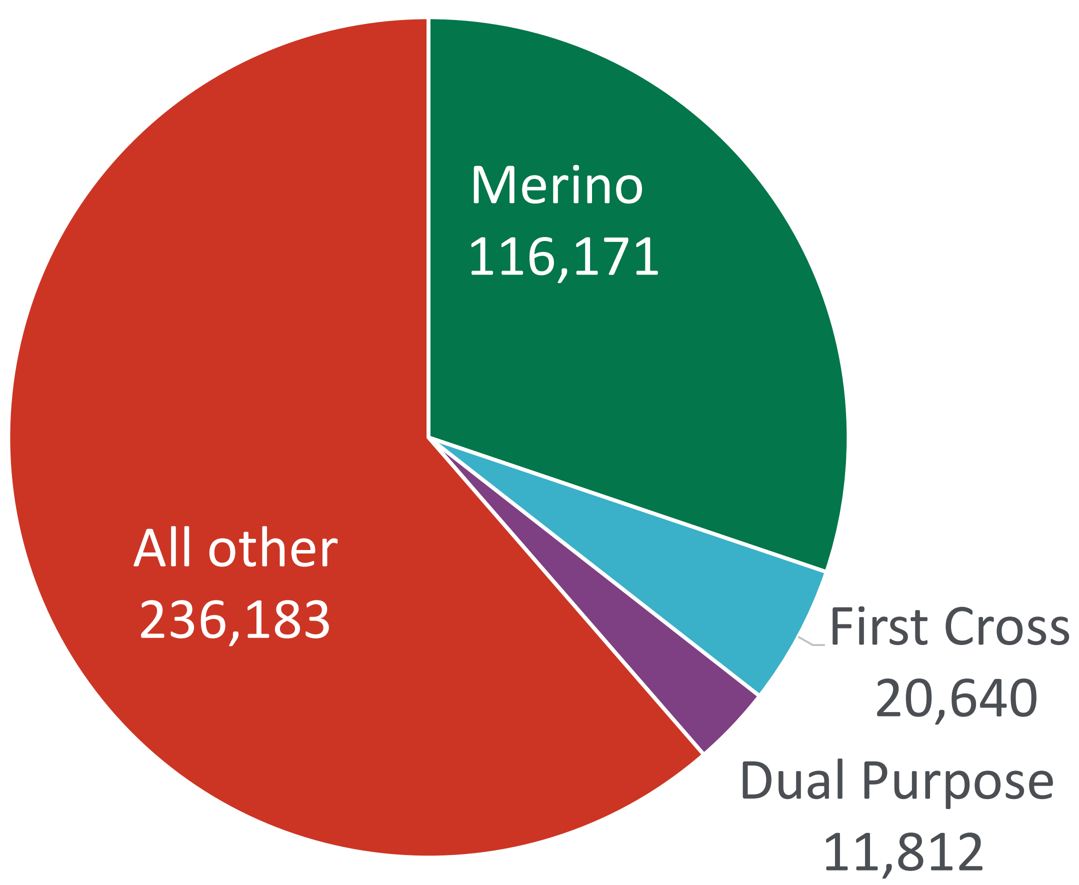
Breeding ewes on hand



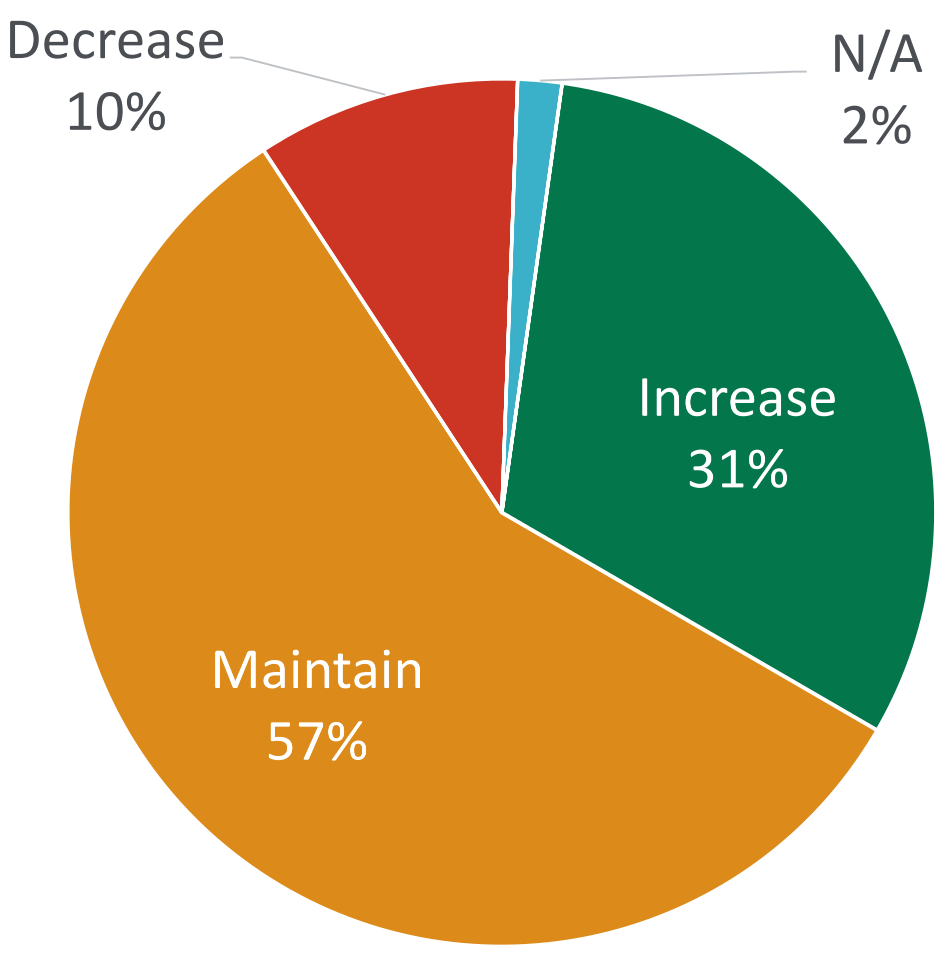
Lambs on hand



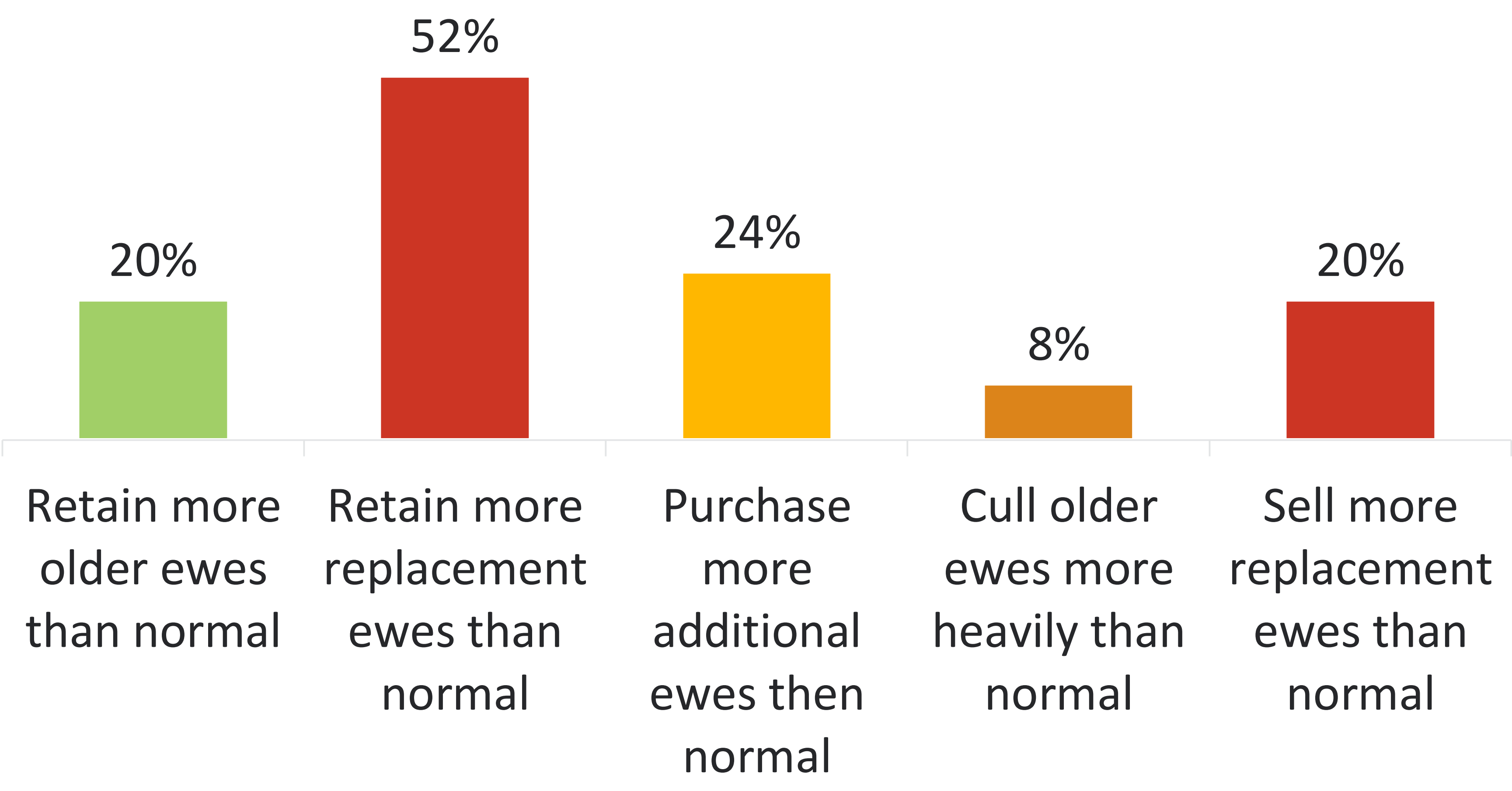
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase

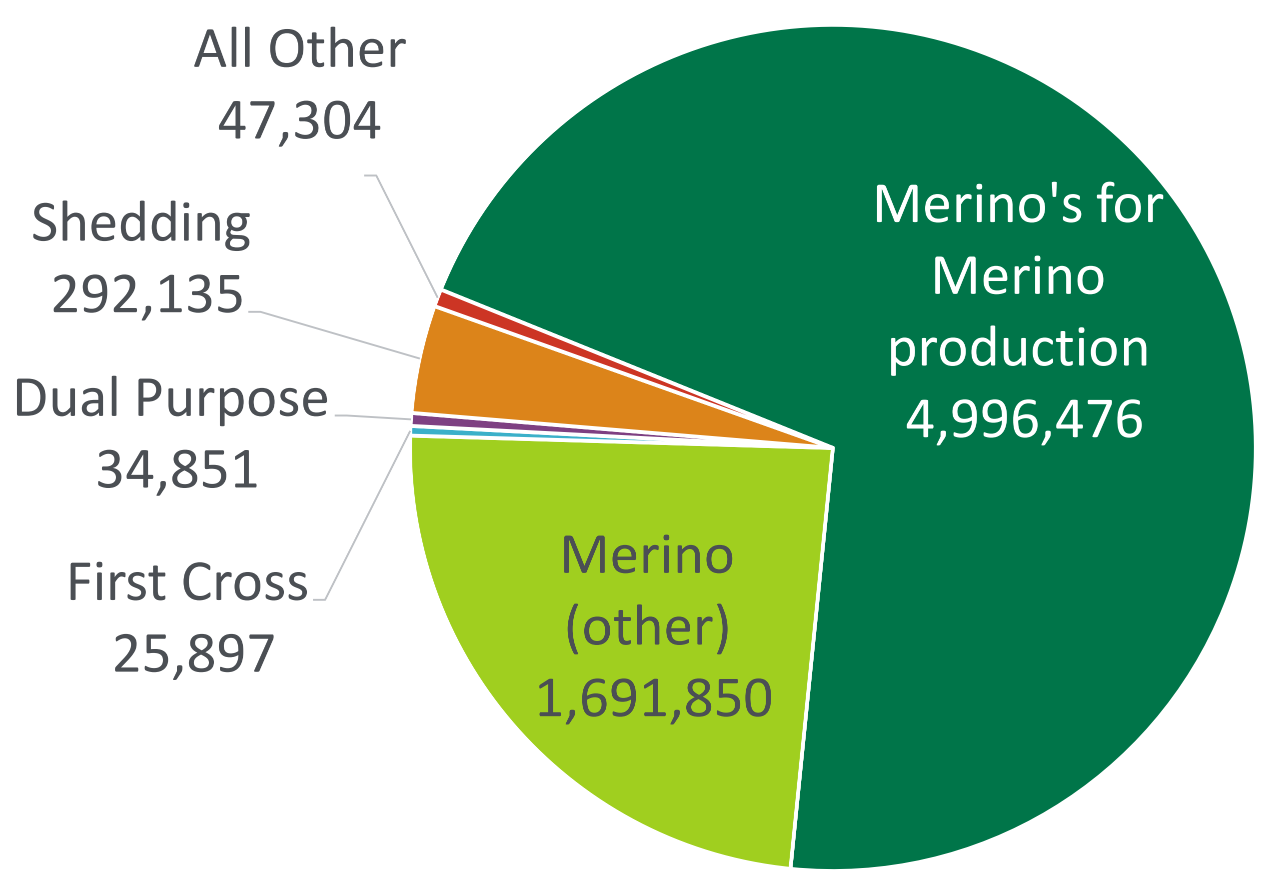


Totals

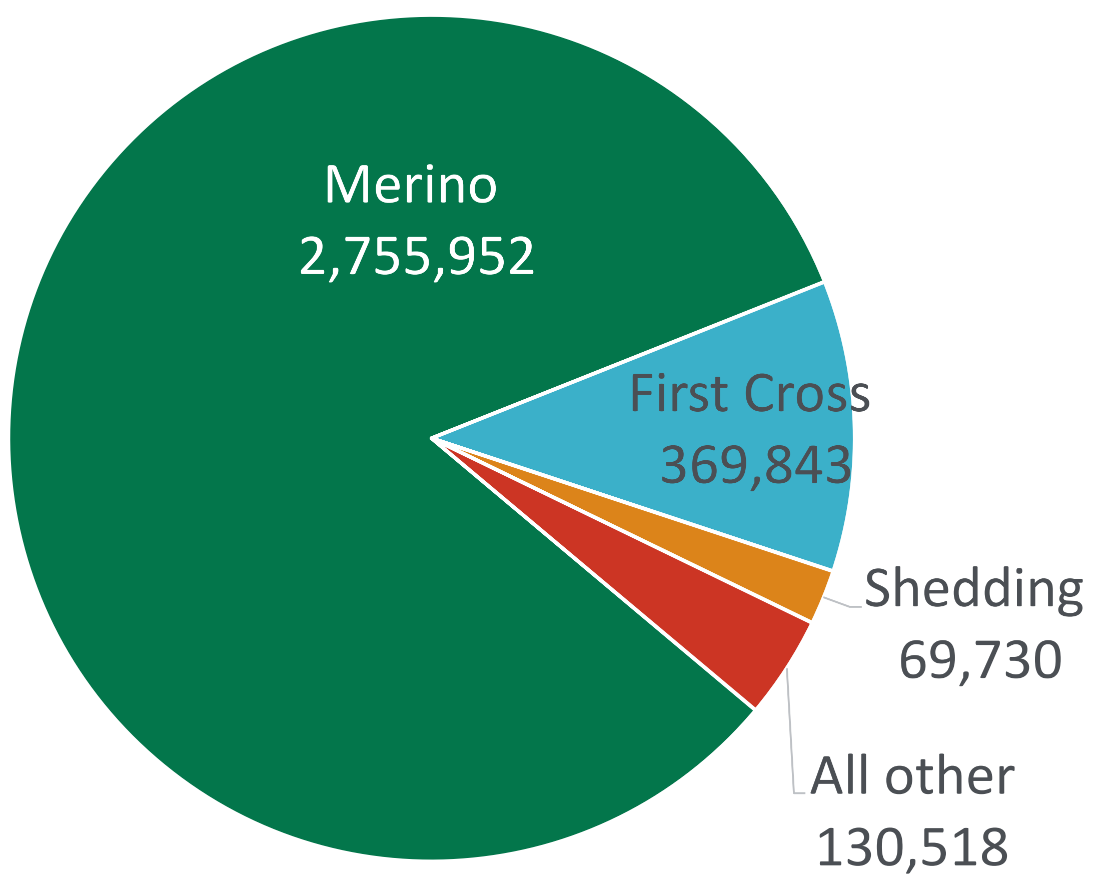
Breeding ewes on hand	2,131,417
Lambs on hand	842,662
Expected lamb sales in the next 4 months	384,806
Lambs marked in the past 4 months (1 Mar – 30 Jun)	33,796
Number of ewes joined to produce marked lambs	33,534

Western Australia

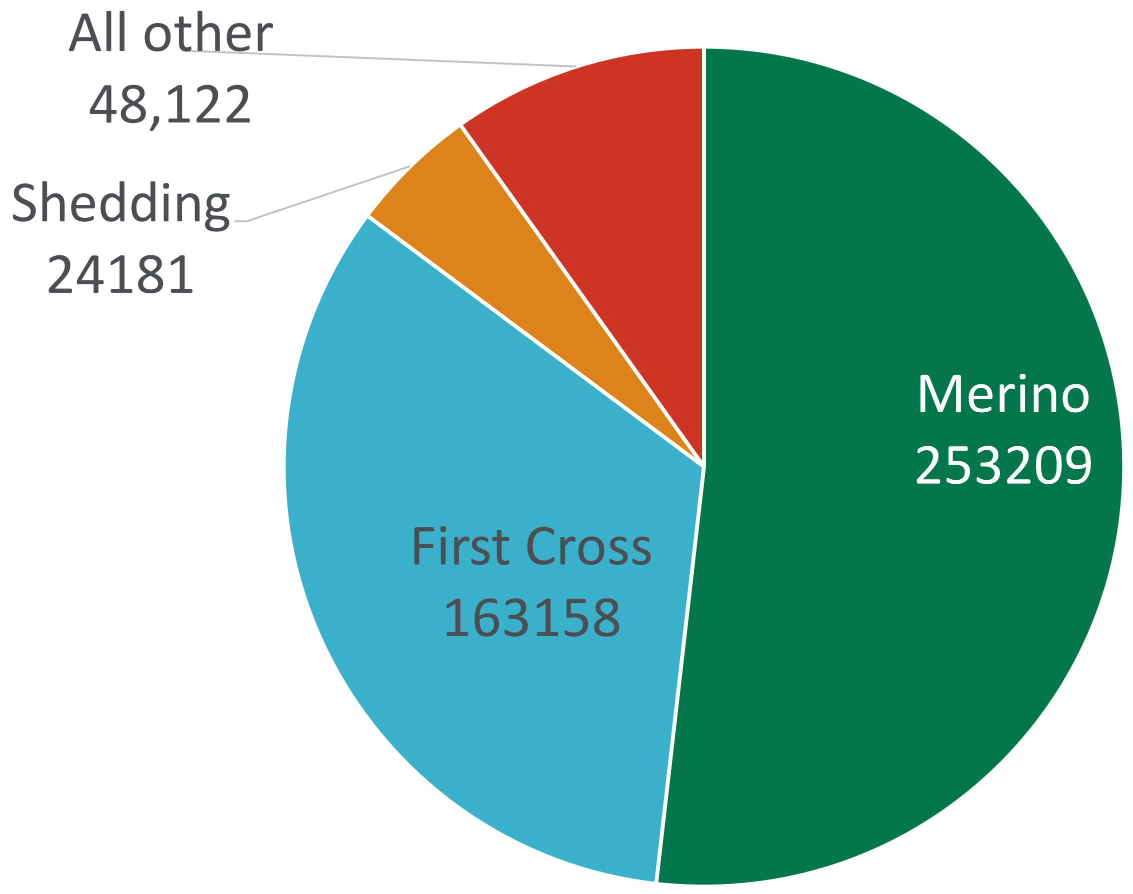
Breeding ewes on hand



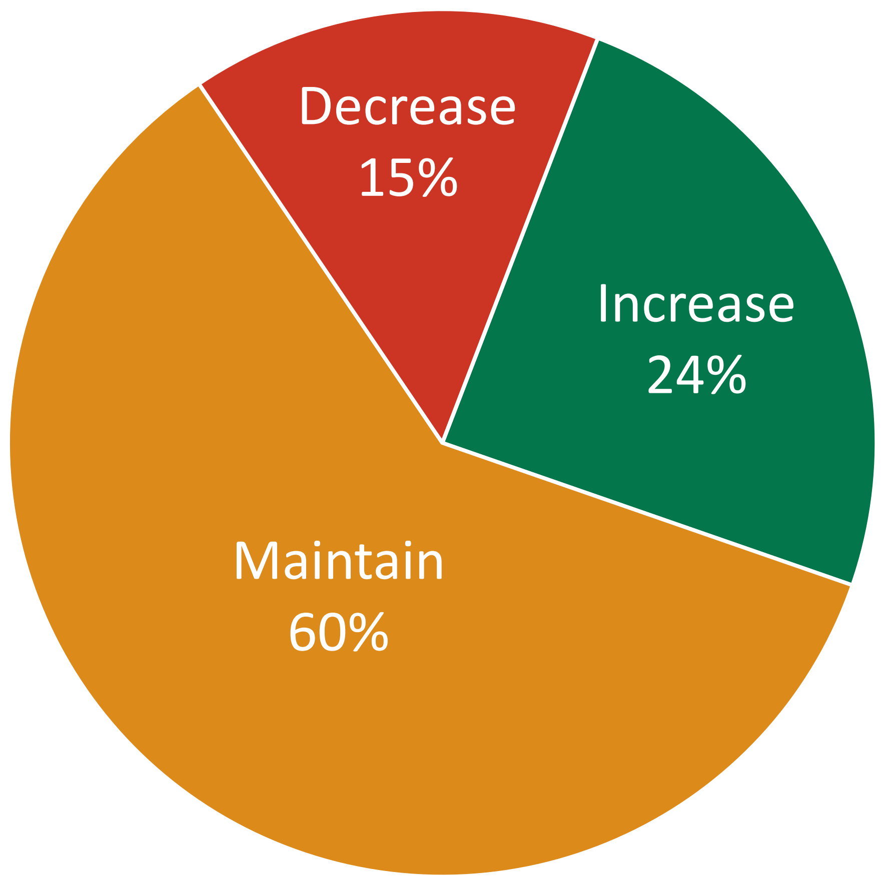
Lambs on hand



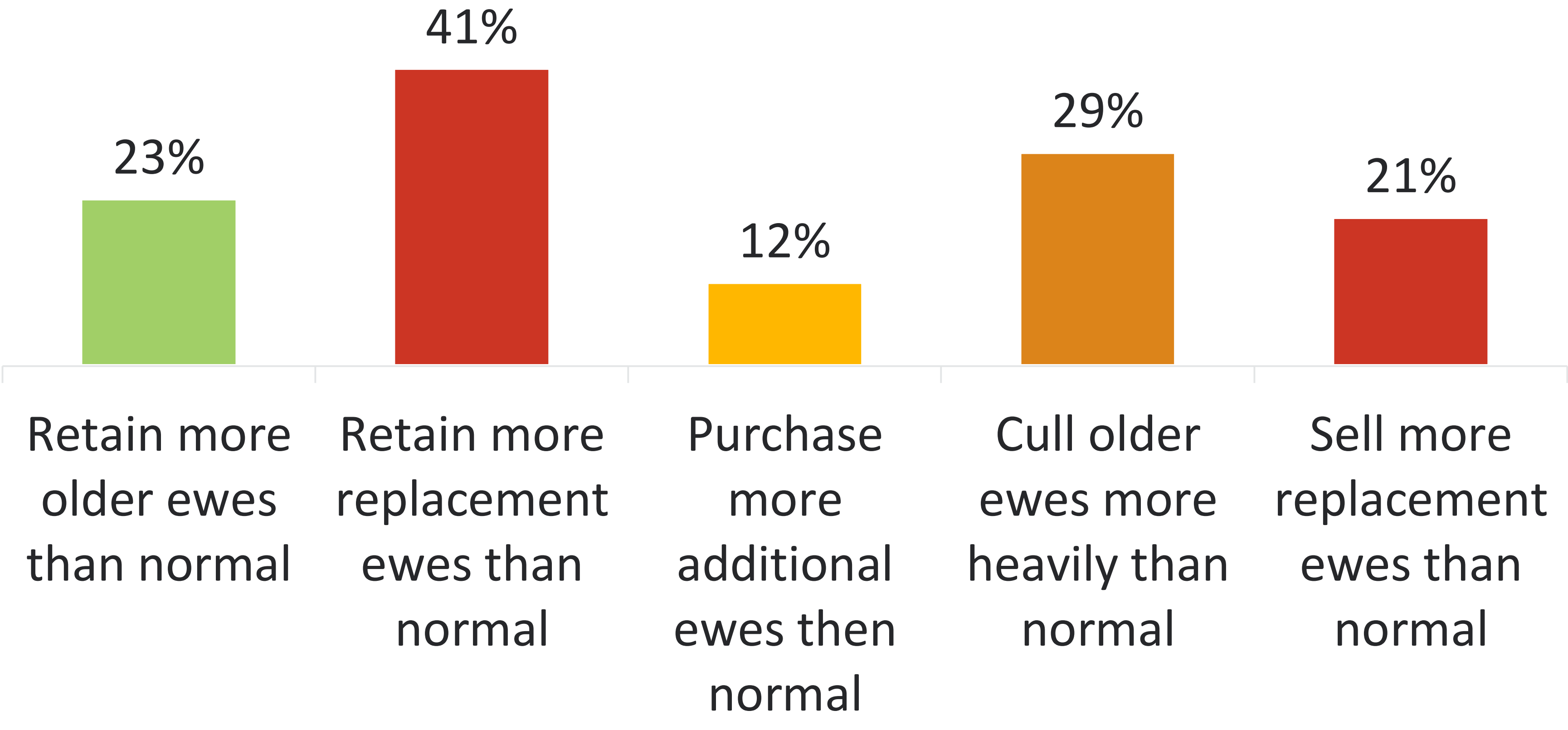
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase



Totals

Breeding ewes on hand	7,262,891
Lambs on hand	3,326,043
Expected lamb sales in the next 4 months	488,670
Lambs marked in the past 4 months (1 Mar – 30 Jun)	1,231,942
Number of ewes joined to produce marked lambs	1,409,068

Disclaimer

Information contained in this publication is obtained from a variety of third party sources. To the best of MLA's knowledge the information accurately depicts existing and likely future market demand. However, MLA has not verified all third party information, and forecasts and projections are imprecise and subject to a high degree of uncertainty.

MLA makes no representations and to the extent permitted by law excludes all warranties in relation to the information contained in this publication. MLA is not liable to you or to any third party for any losses, costs or expenses, including any direct, indirect, incidental, consequential, special or exemplary damages or lost profit, resulting from any use or misuse of the information contained in this publication.