

# MLA and AWI Wool and Sheepmeat Survey Report - Sheepmeat

November, 2017

Prepared by Kynetec

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# Executive Summary – Lamb Production

## Number of breeding ewes on hand

40,700,611 total breeding ewes on hand  
29,718,057 total Merino breeding ewe flock, 73% of total breeding flock  
10,982,553 total non-Merino breeding ewes on hand, 27% of total breeding flock  
Within the Merino flock, 71% for Merino lamb production and 29% for other lamb production

## Ewe flock intentions for next 12 months

29% increase  
60% maintain  
11% decrease

## Intended method for achieving flock increase

43% Retain more replacement ewes than normal  
28% Retain more older ewes than normal  
25% Purchase more additional ewes than normal

## Number of lambs on hand

29,086,035 total lambs on hand  
15,311,622 total Pure bred Merino lambs, 53% of total lamb flock  
13,774,412 total non-Merino lambs, 47% of total lamb flock

## Expected lamb sales in the next four months (1 Nov – 28 Feb)

10,823,823 total lamb sales in the next four months  
3,412,635 total Pure meat sales (32% of total lamb sales)  
3,047,937 total First cross sales (28% of total lamb sales)  
2,261,429 total Merino sales (21% of total lamb sales)  
1,030,701 total other breed sales (19% of total lamb sales)

## Number of lambs marked in the past four months (1 July – 31 Oct)

23,770,260 total lambs marked in the past four months  
11,543,811 total Merino lambs marked (49% of total markings)  
12,226,449 total non-Merino lambs marked (51% of total markings)

## Number of ewes joined to produce those lambs

23,488,905 total number of ewes joined to produce those lambs  
12,483,942 total Merino lambs joined (53%)  
11,004,963 total non-Merino lambs joined (47%)

## Marking rates

92% National Merino marking rate  
111% 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 16 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, sheepmeat 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.



## Sampling

The MLA and AWI Wool and Sheepmeat survey for October 2017 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 2,054 survey responses were achieved in October 2017, down from 2,439 in October 2016. 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, 3,217 properties were included in the survey.

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 96 respondents completed the survey via this method (5% 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 October to 31 October, 2017) and send reminder emails accordingly. A total of 13,148 emails were sent to MLA and AWI members via the email addresses provided by MLA and AWI databases. Of those 689 emails bounced, giving a total emails delivered of 12,459. A total of six 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 1,219 completed responses (59% 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 739 producers responded by this methodology (36% 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, 10 calls were successful combining with 8 other large producers who completed the online survey to achieve a sample of 18 very large producers (Ewe flock size >20,000 hd).

# Methodology [2/2]

## Weighting

This is the first survey using the ABS Census 2015-16 data and represents the number of flock types by size by region based the number of breeding ewes on hand. The sample was weighted to both production and population and run parallel to each other to view any significant differences in the weightings. As a result of large disparities in the two different types of weighting and in order to remain consistent with previous waves, the October 2017 results were weighted by population. It is also our belief that this is the most reliable form of weighting at this stage of the project, however this may be subject to change in future waves if necessary.

Due to the \$40k cutoff for ABS Census of agricultural businesses, a significant number of producers would not be included in the survey weighting. As flock sizes of less than 250 head represent around 32% of the number of sheep producing properties in Australia (ABS Census 2011), the base ABS 2015-16 Census number of farm businesses was boosted to include the smaller producers in each state. The table below illustrates the breakdown of producers from the ABS 2011 Census by flock size category (before the \$40k cut off was introduced). In this survey producer numbers in each state were boosted by the percentages listed in the 0 to 250 head column. This may be updated in future surveys if a more accurate measurement becomes available.

	0-250	251-500	501-1000	1001-2000	2001+
Australia	32%	14%	18%	18%	17%
New South Wales	29%	17%	22%	20%	12%
Queensland	43%	11%	13%	11%	22%
Victoria	30%	15%	22%	18%	15%
Tasmania	46%	14%	12%	13%	14%
South Australia	23%	11%	19%	25%	22%
Western Australia	23%	17%	21%	21%	18%

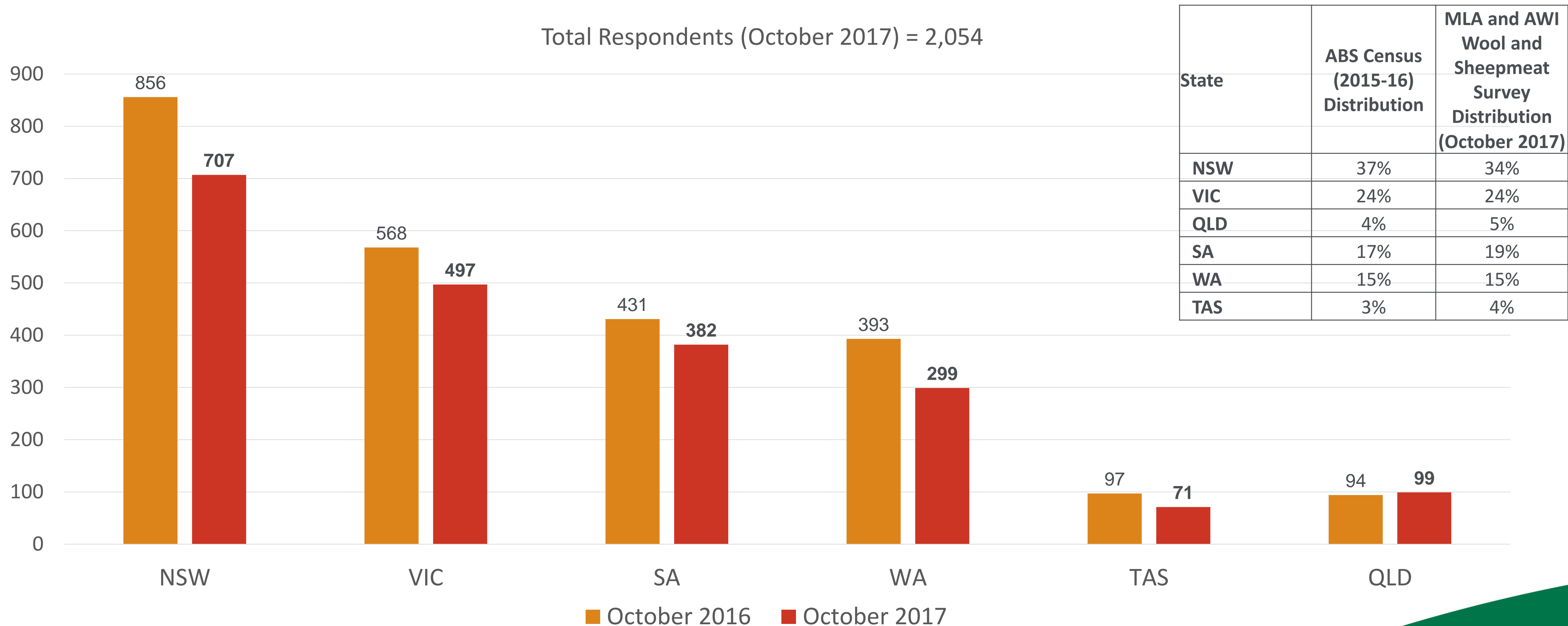
## Statistical significance

The total research sample of 2,054 will give the results of this study a margin of error of  $\pm 2.09\%$  at a 95% confidence level based on 36,874 breeding ewe producers in Australia (ABS 2015-16 Census). This is basically saying that if you conducted the same survey 100 times, 95 out of the 100 sheep producers should yield results within  $\pm 2.09\%$  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  $\pm 3.28\%$
- Victoria  $\pm 4.36\%$
- Queensland  $\pm 9.49\%$
- South Australia  $\pm 4.91\%$
- Western Australia  $\pm 5.27\%$
- Tasmania  $\pm 10.33\%$

# Survey Responses [1/4]: By State

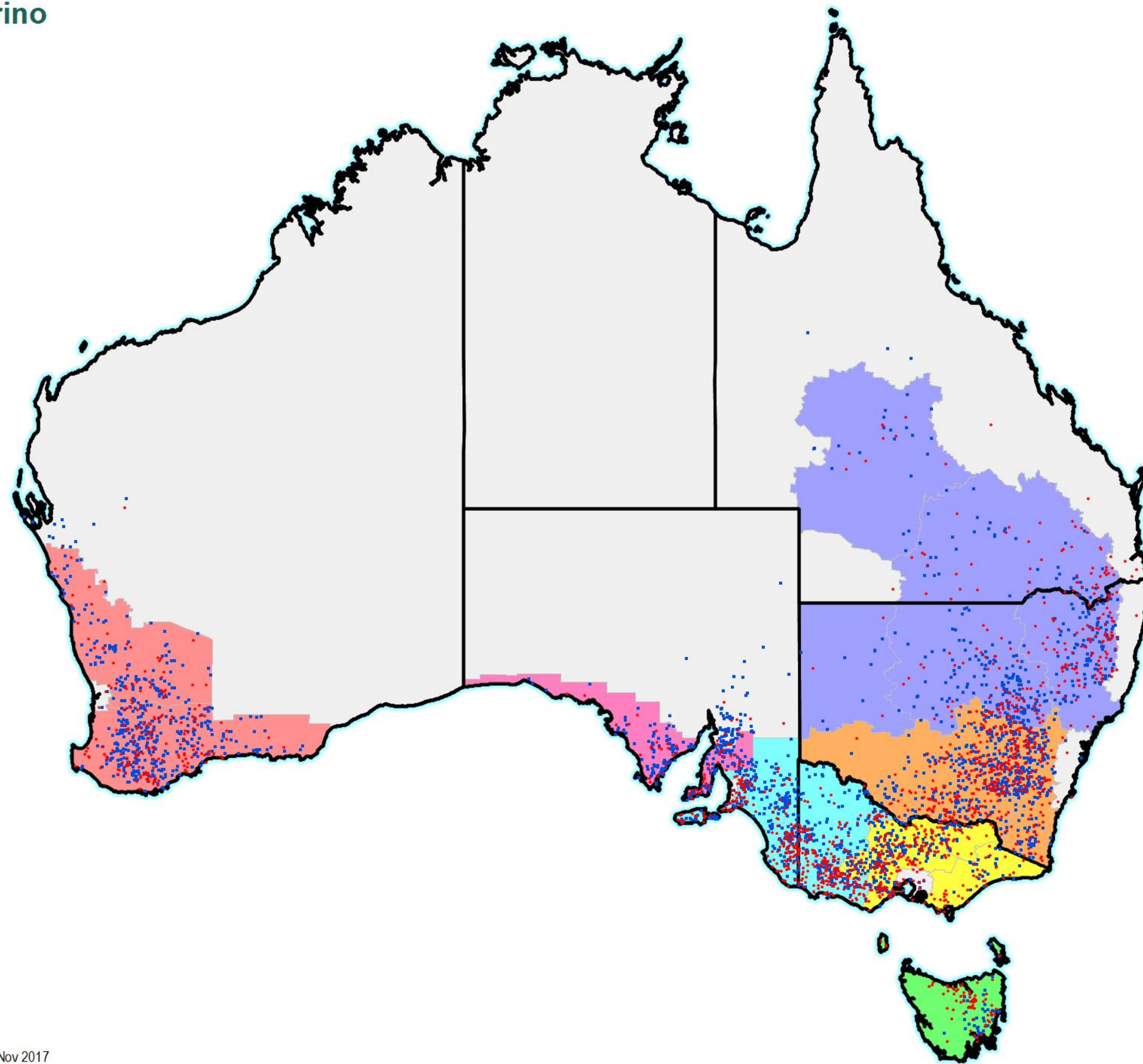
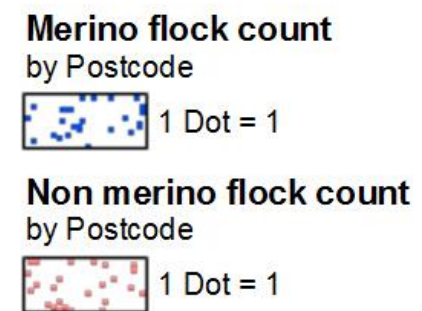
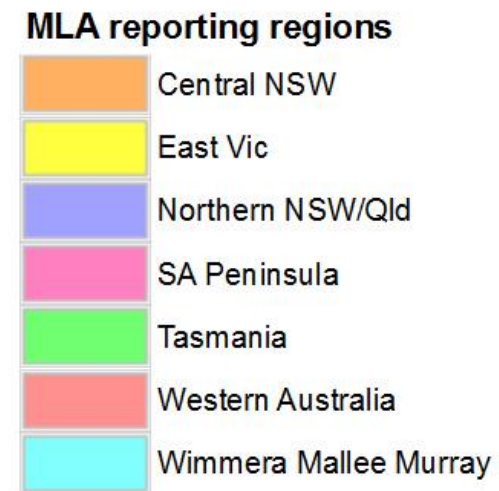
The total number of respondents (n=2,054) represented national industry distribution of sheep producers (31,136 as reported in the ABS Census 2015-16), with the proportion of respondents in each state being similar to that of the Census producer distribution. The ABS perform a substantial yearly survey 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.





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

## Merino and non merino flock count by Postcode



Total properties: n = 3,217  
Merino properties: n = 2,267  
All other properties: n = 1,638



# Survey Responses [3/4]: Merino Flock Counts by Postcode



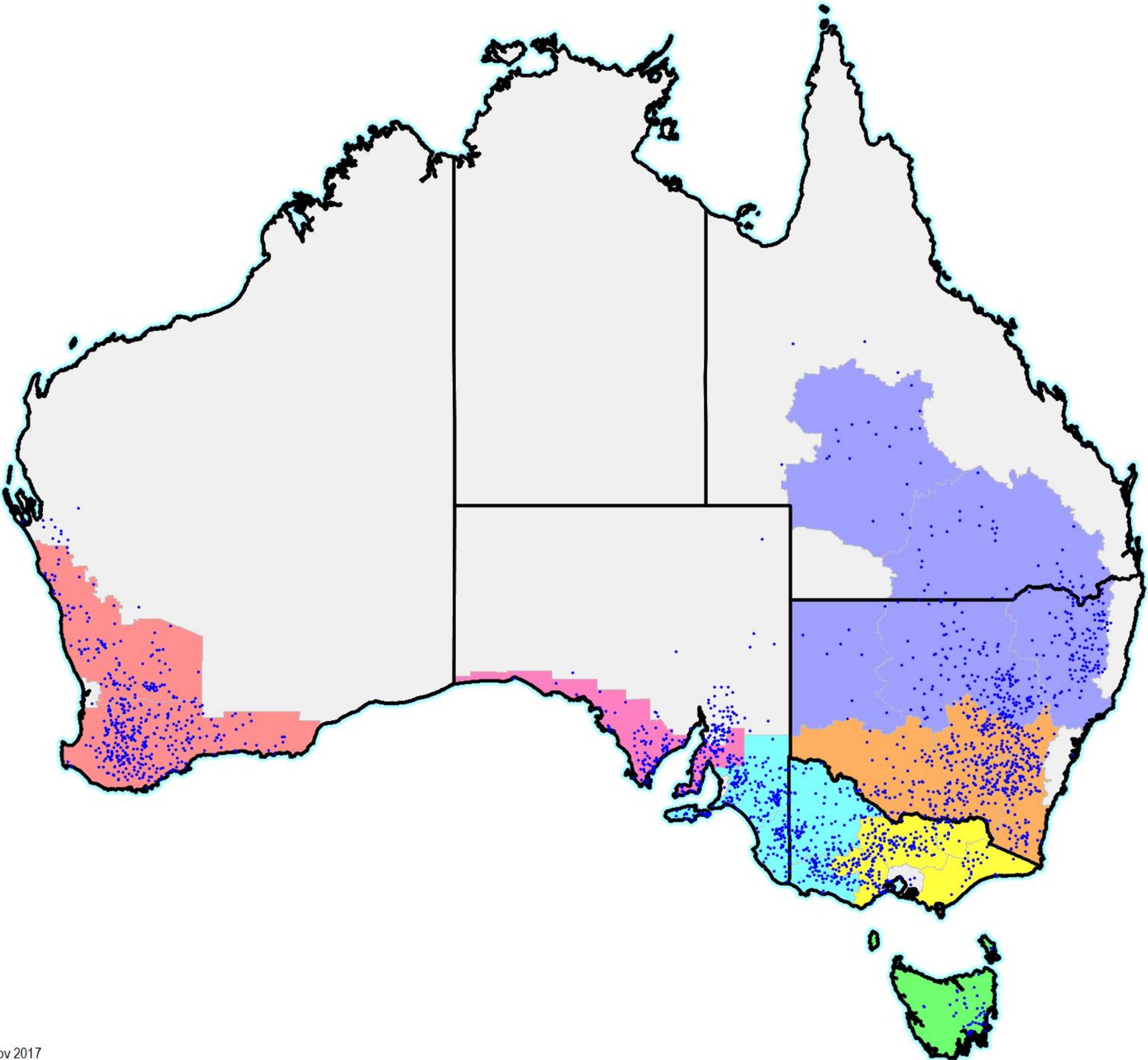
## Merino flock count by Postcode

### MLA Reporting Regions

- Central NSW
- East Vic
- Northern NSW/Qld
- SA Peninsula
- Tasmania
- Western Australia
- Wimmera Mallee Murray

### Merino flock count

1 Dot = 1



Merino properties: n = 2,267



HZ11133 Source: MLA, NC Map Produced: Nov 2017





# Survey Responses [4/4]: Non-Merino Flock Counts by Postcode



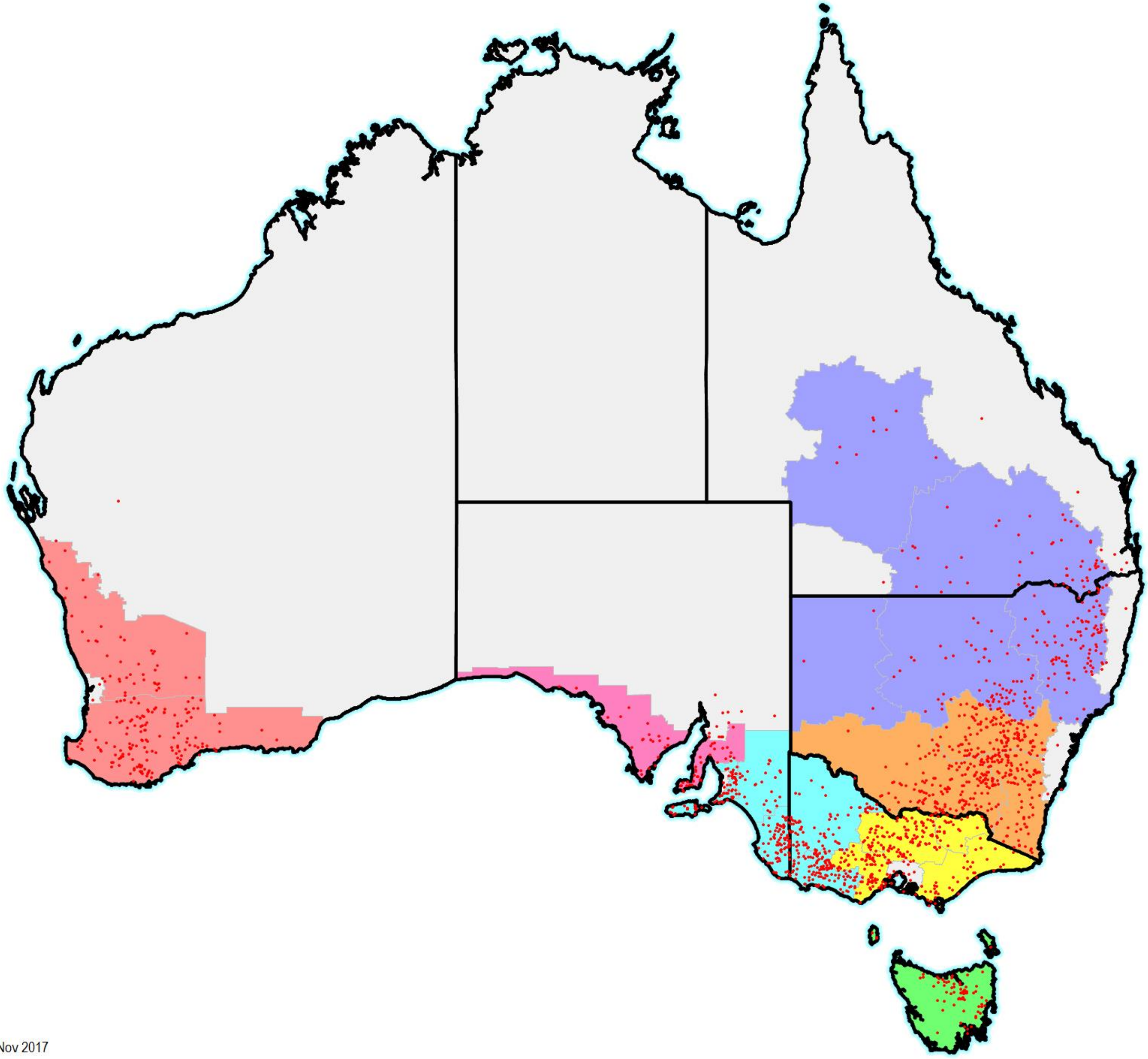
Non merino flock count by Postcode

MLA Reporting Regions

- Central NSW
- East Vic
- Northern NSW/Qld
- SA Peninsula
- Tasmania
- Western Australia
- Wimmera Mallee Murray

Non merino flock count by Postcode

1 Dot = 1



All other properties: n = 1,638

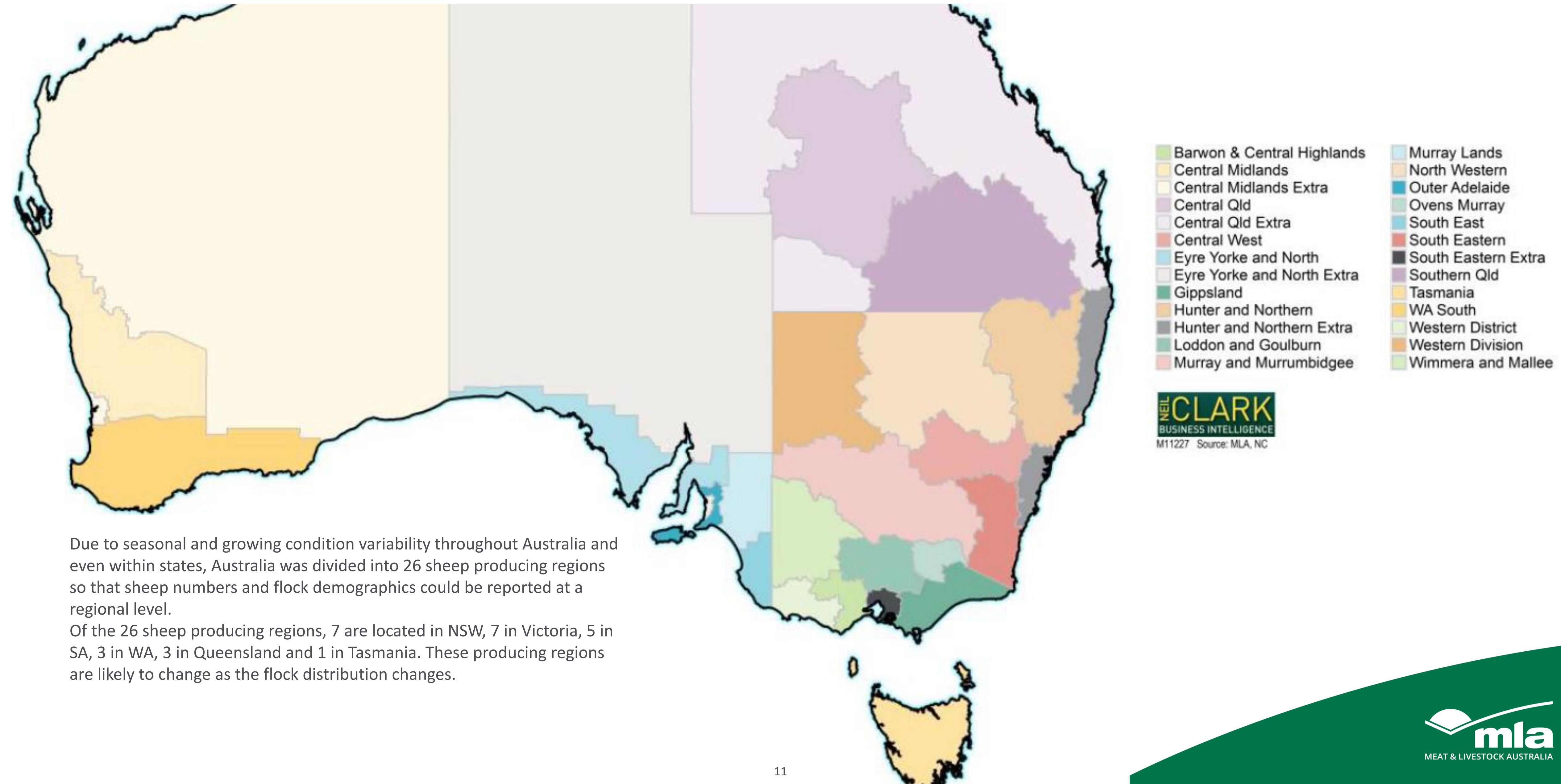


HZ11133 Source: MLA, NC Map Produced: Nov 2017





# 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.

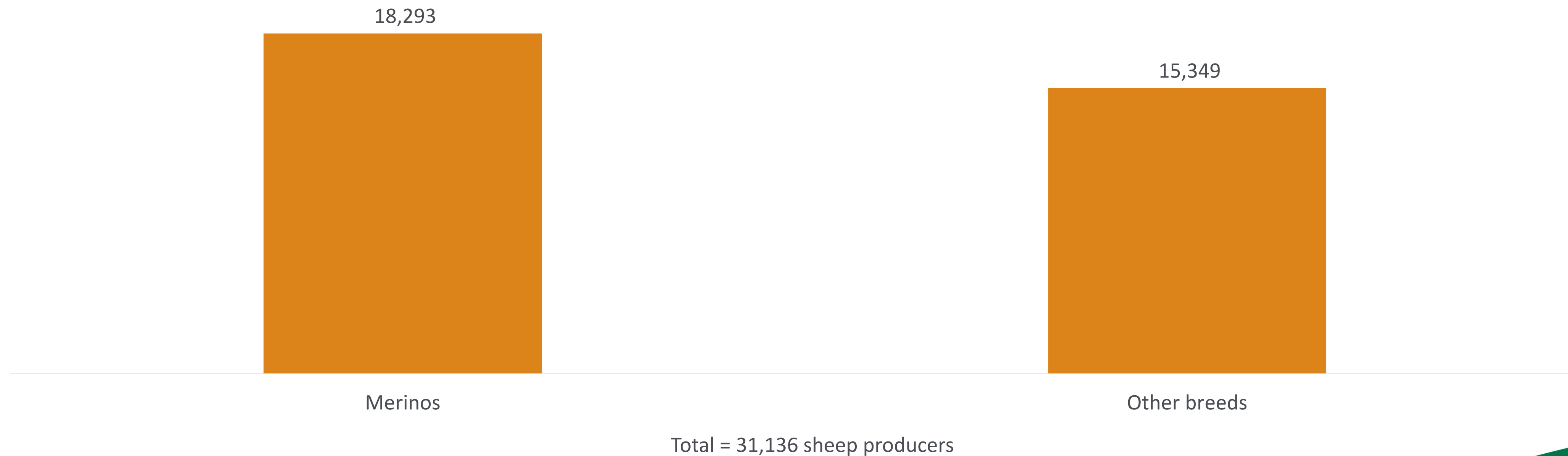


# National Results

# Producer farm type - Australia

This chart is representative of the 31,136 producers involved in sheep production within Australia as reported in the ABS Census 2015-16. The total sheep producer population can be divided into Merino and Other breed producers, with many of these being dual flock producers who manage both Merino and Other breed production systems. Note – these are farm businesses that turnover more than \$40k per year, so are not inclusive of smaller sheep producers who represent around one third of sheep production businesses in Australia.

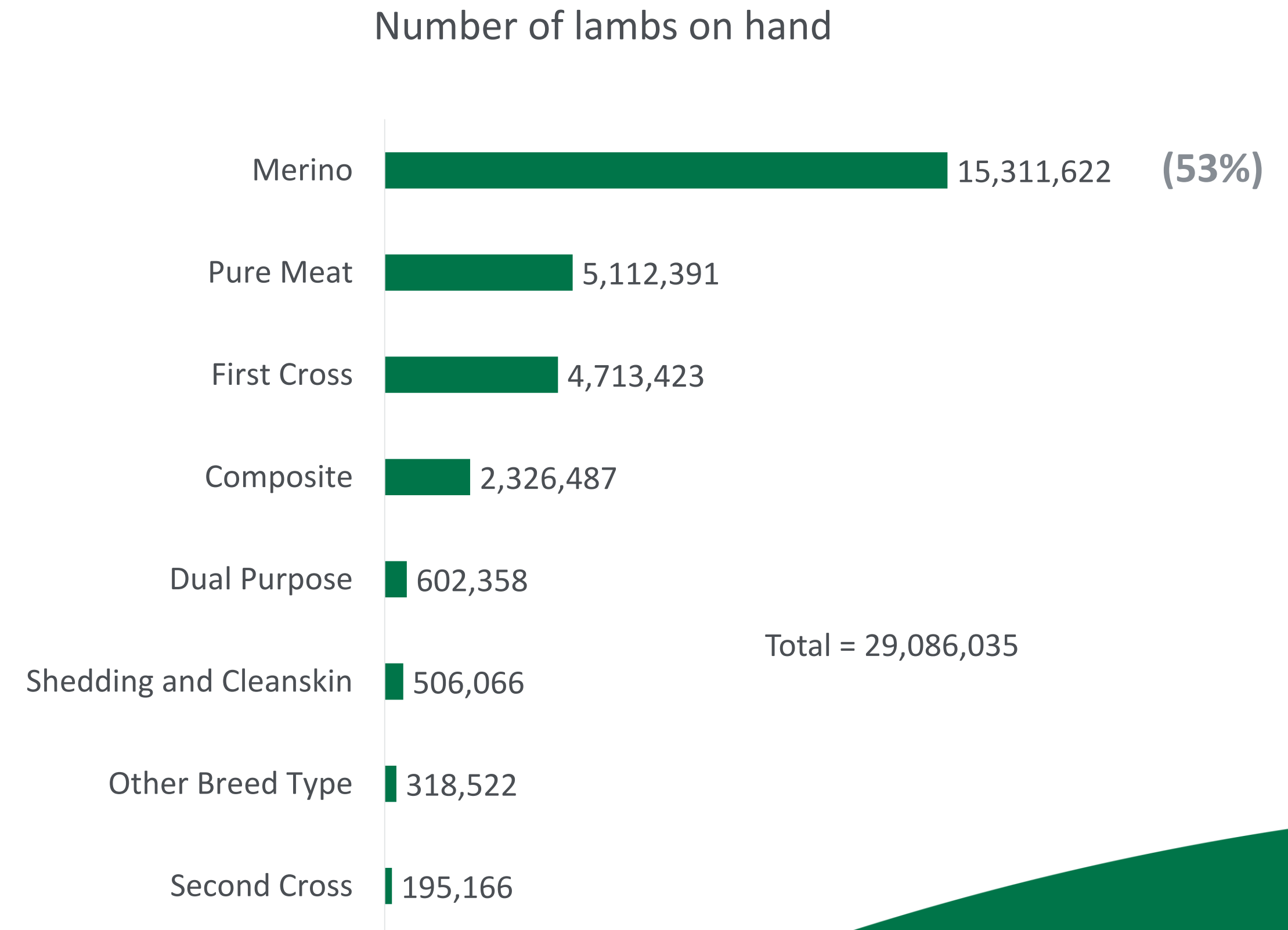
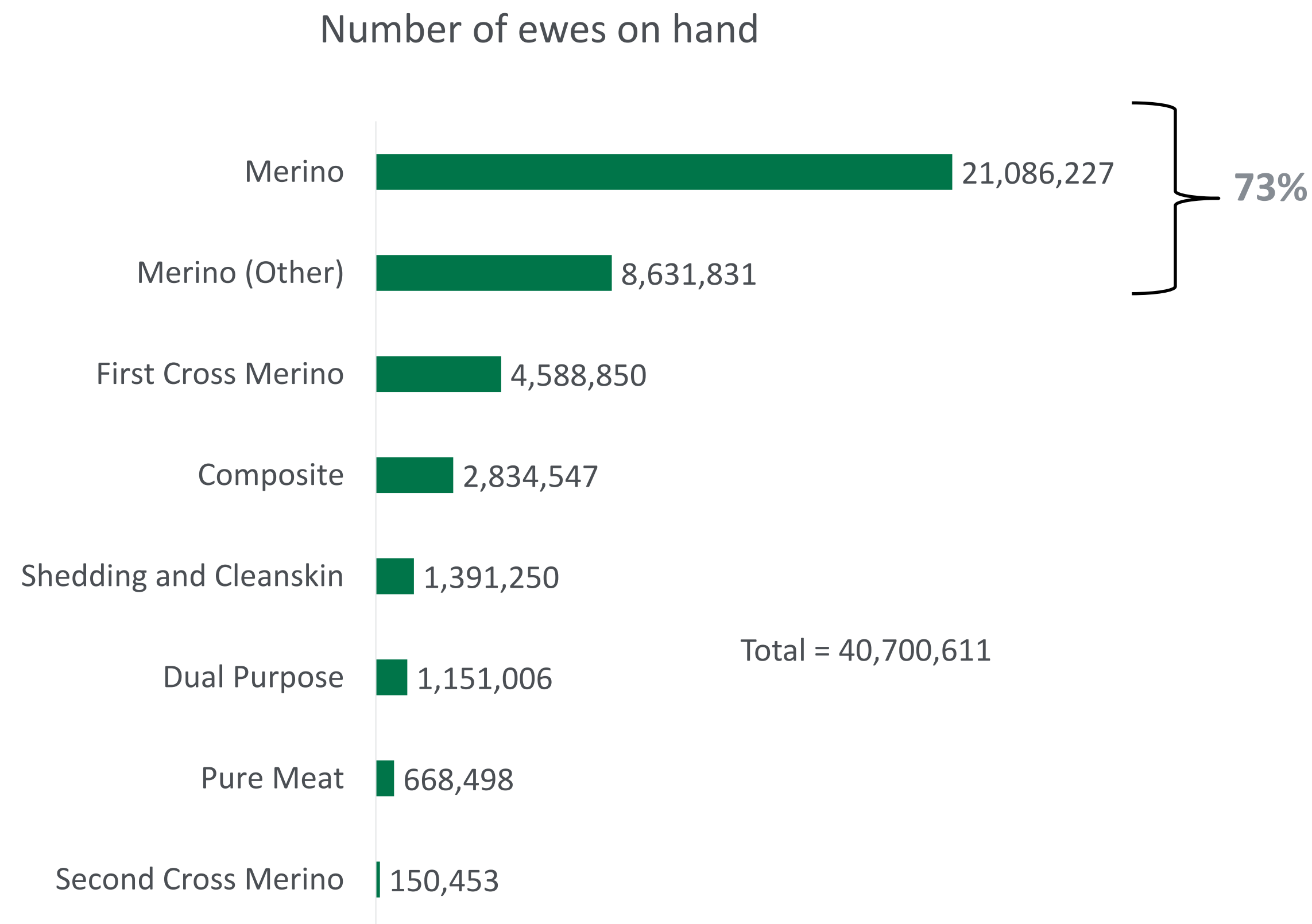
Businesses by sheep flock type



# Ewes on hand and Lambs on hand - Australia

Merinos accounted for 73% of the total breeding ewe flock at 29.7 million head. Merino breeding ewes were further divided into Merino ewes for pure bred Merino production and Merino ewes for crossbred production, accounting for 71% and 29% of the merino flock, respectively.

There were 29.1 million lambs on hand at 31 October 2017. Merinos made up 53% of the total lamb flock, at 15.3 million head, followed by Pure meat lambs and first cross lambs accounting for 17.5% and 16.2% of the national lamb flock, respectively.



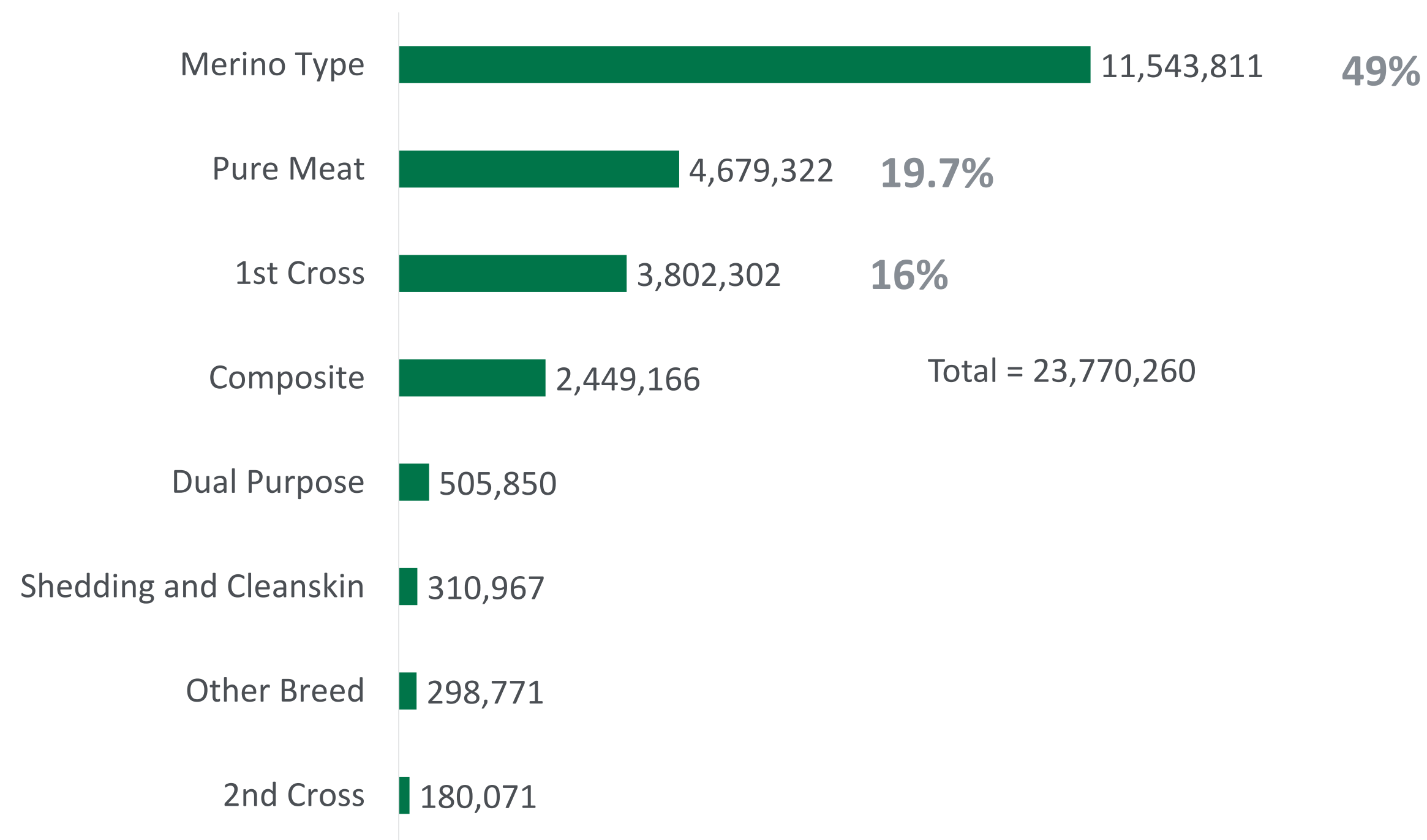


# Lambs marked in the past four months (1 July – 31 October) and Ewes joined to produce those lambs - Australia

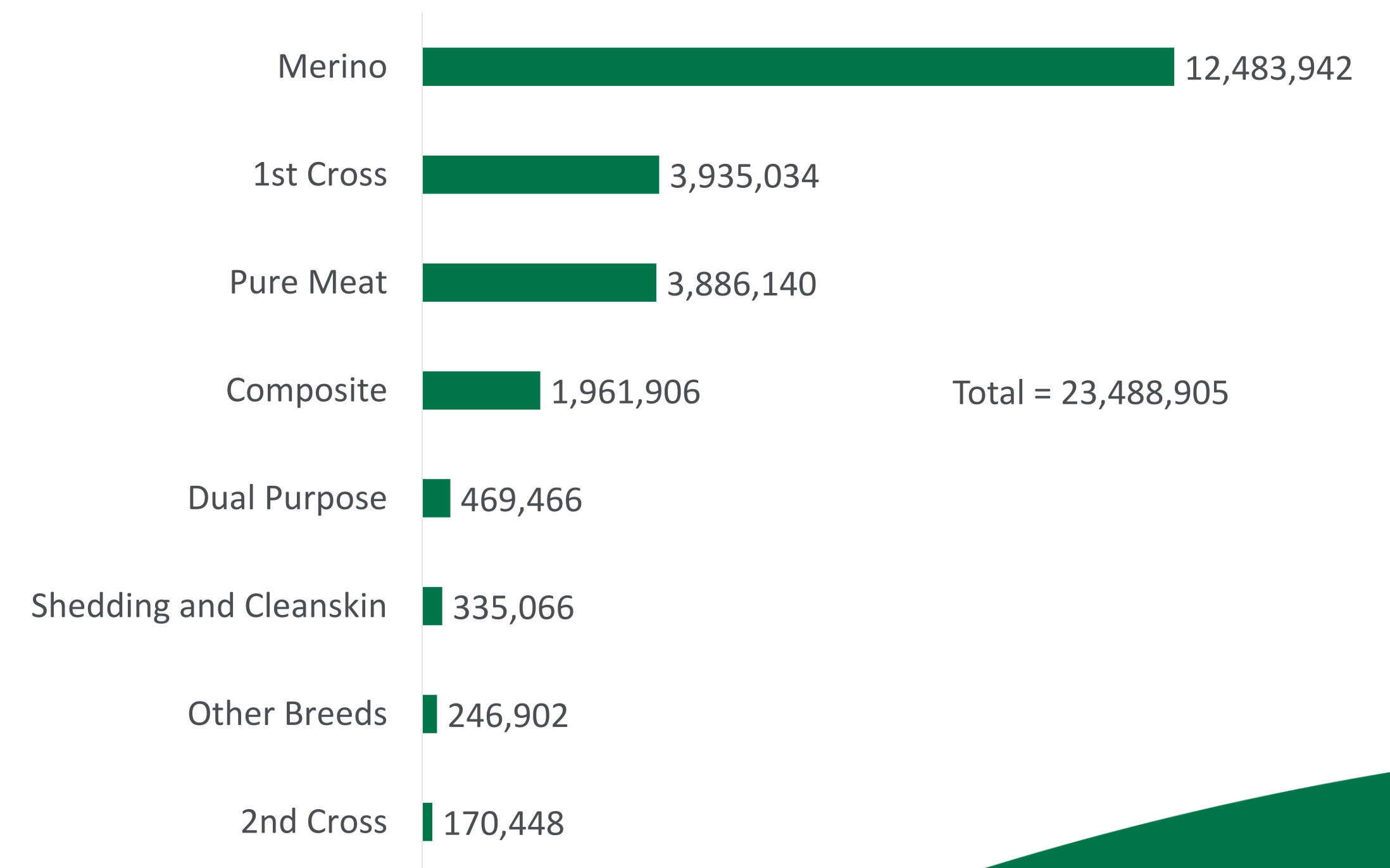
There were a total of 23.8 million lambs marked in the four months (from 1 July to 31 October 2017). Merinos accounted for the largest proportion of lambs marked in the past four months at **49%**, with Pure meat breeds and first cross breeds accounting for **19.7%** and **16%**, respectively.

A total number of 23.5 million ewes were joined to produce the lambs that were marked in the past four months. Merino marking rates were well below that of non-merino breeds at 92% and 111%, respectively.

Lambs marked in the past 4 months (1 July to 31 Oct)



Ewes joined to produce marked lambs (1 July to 31 Oct)

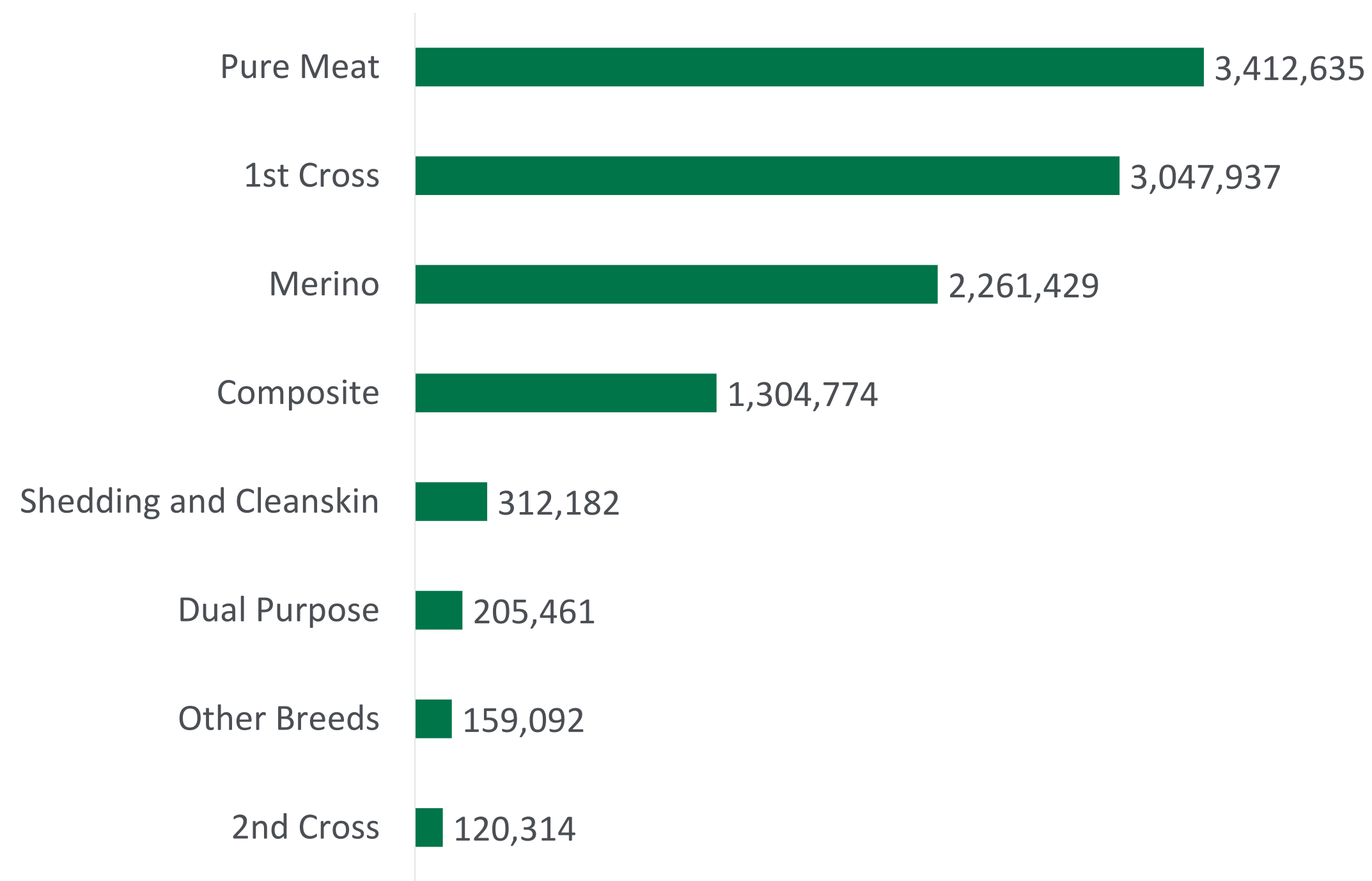


# Expected lamb sales in the next 4 months - Australia

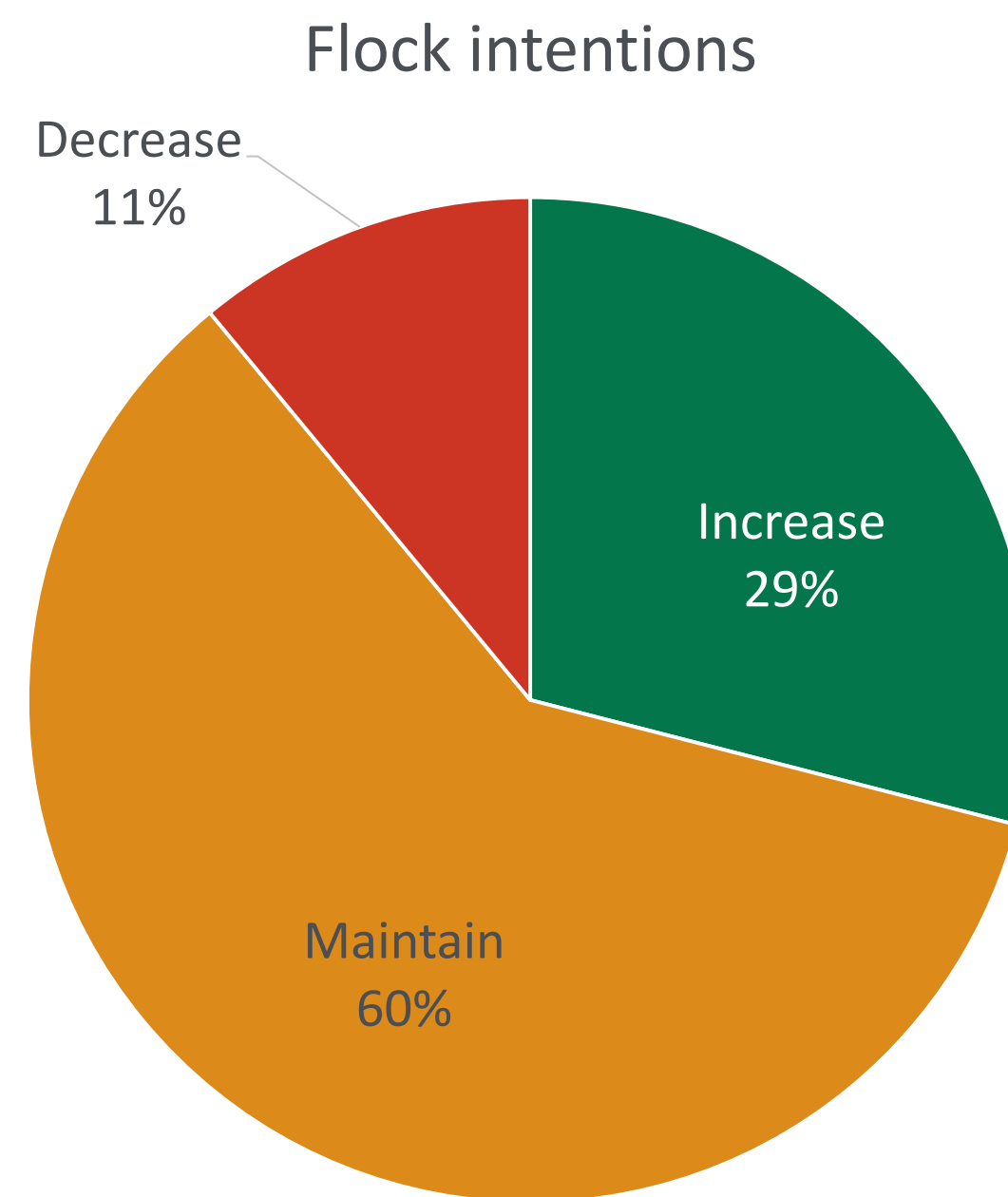
A total number of 10.8 million lambs are expected to be sold in the next four months (1 July 2017 to 31 October 2017), approximately 37% of the total number of lambs on hand (29.1M). Of these: Pure Meat, 1<sup>st</sup> Crosses and Merino breeds are expected to account for 32%, 28% and 21% of lamb sales, respectively.

These results are consistent with producer ewe flock intentions for the next 12 months and method of achievement, with 29% looking to increase their ewe flocks and of those looking to increase, 43% are expected to retain more replacement ewes than normal in order to achieve this increase.

Expected lamb sales in the next 4 months

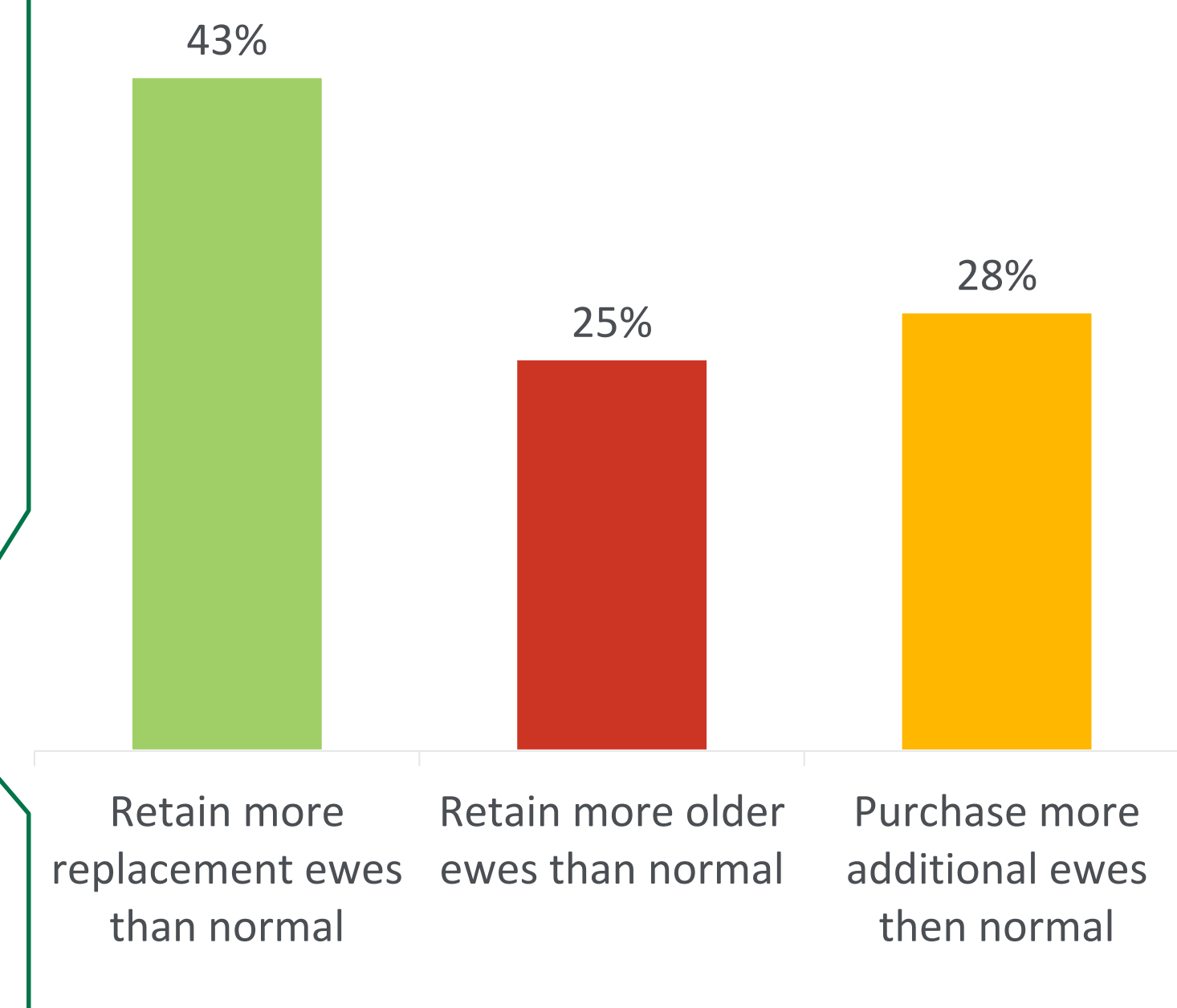


Total = 10,823,824



Sample base (respondents) n=1,913

How to achieve increase

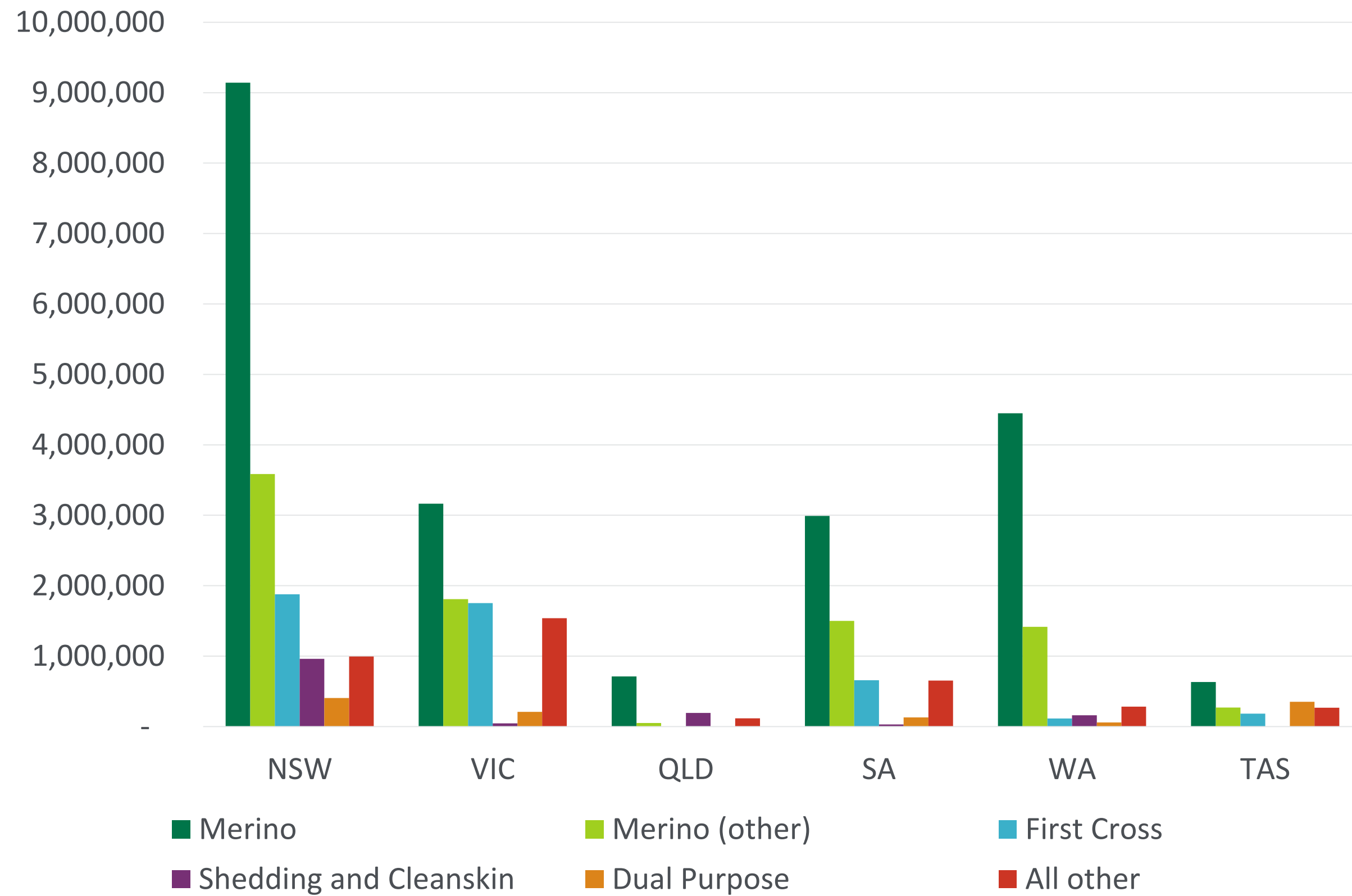


# Results by State

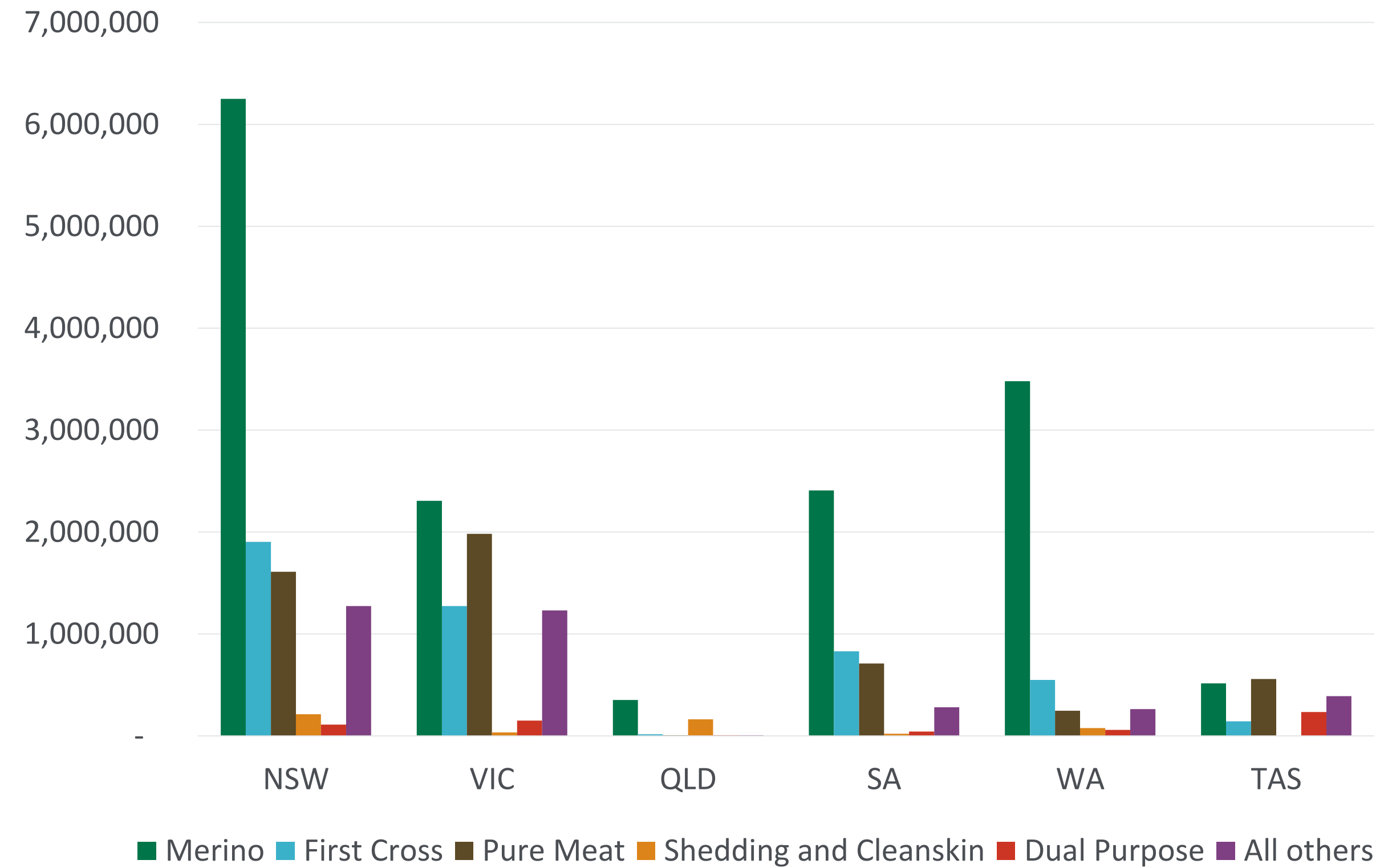


# Ewes on hand and Lambs on hand - State

Ewes on hand



Lambs on hand

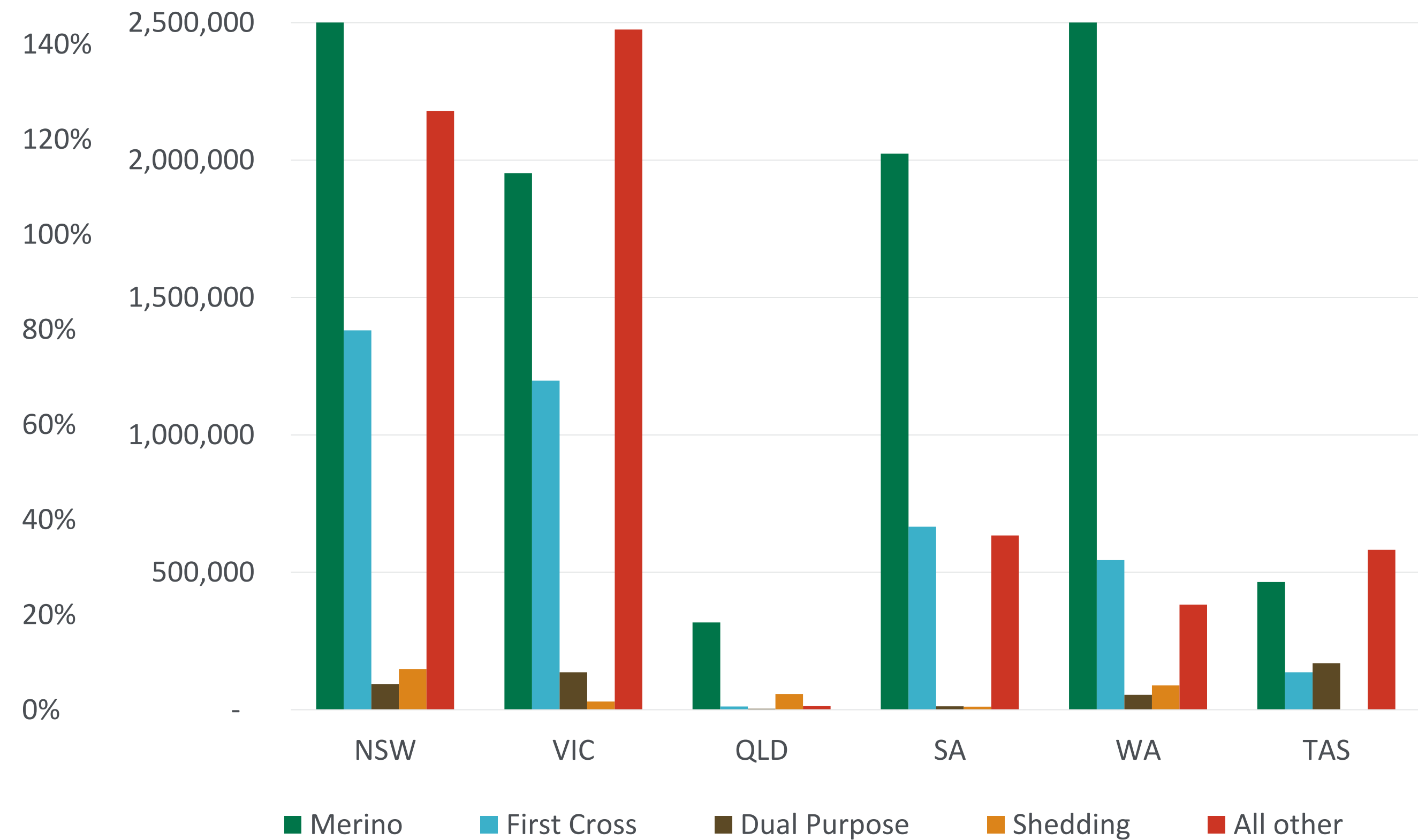


# Lambs marked in the past four months and Ewes joined to produce those lambs - State

Lambs marked in the past 4 months (1 July – 31 October)



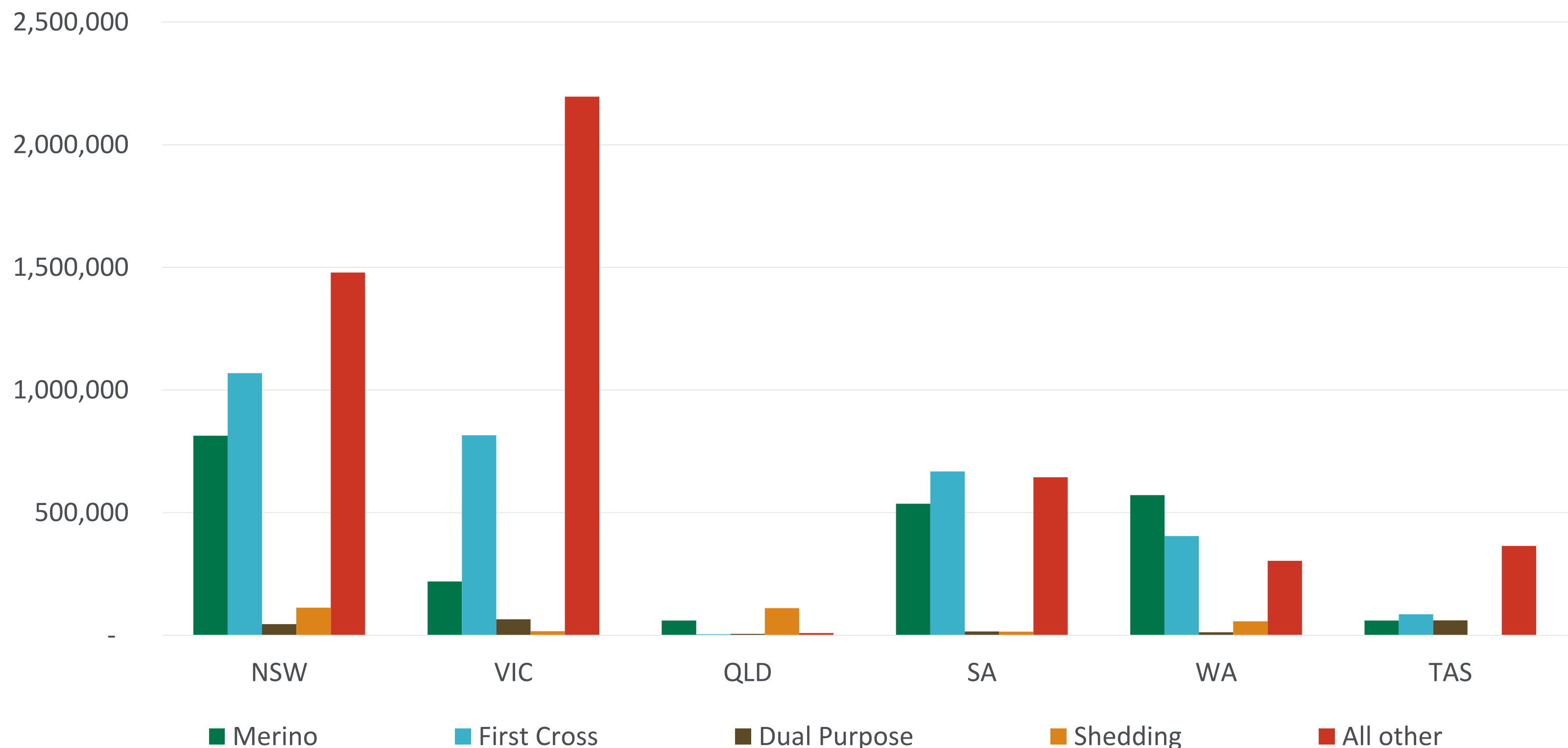
Ewes joined to produce those lambs



# Expected lamb sales in the next four months - State



Expected lamb sales in the next 4 months (1 November 2017 – 28 February 2018)

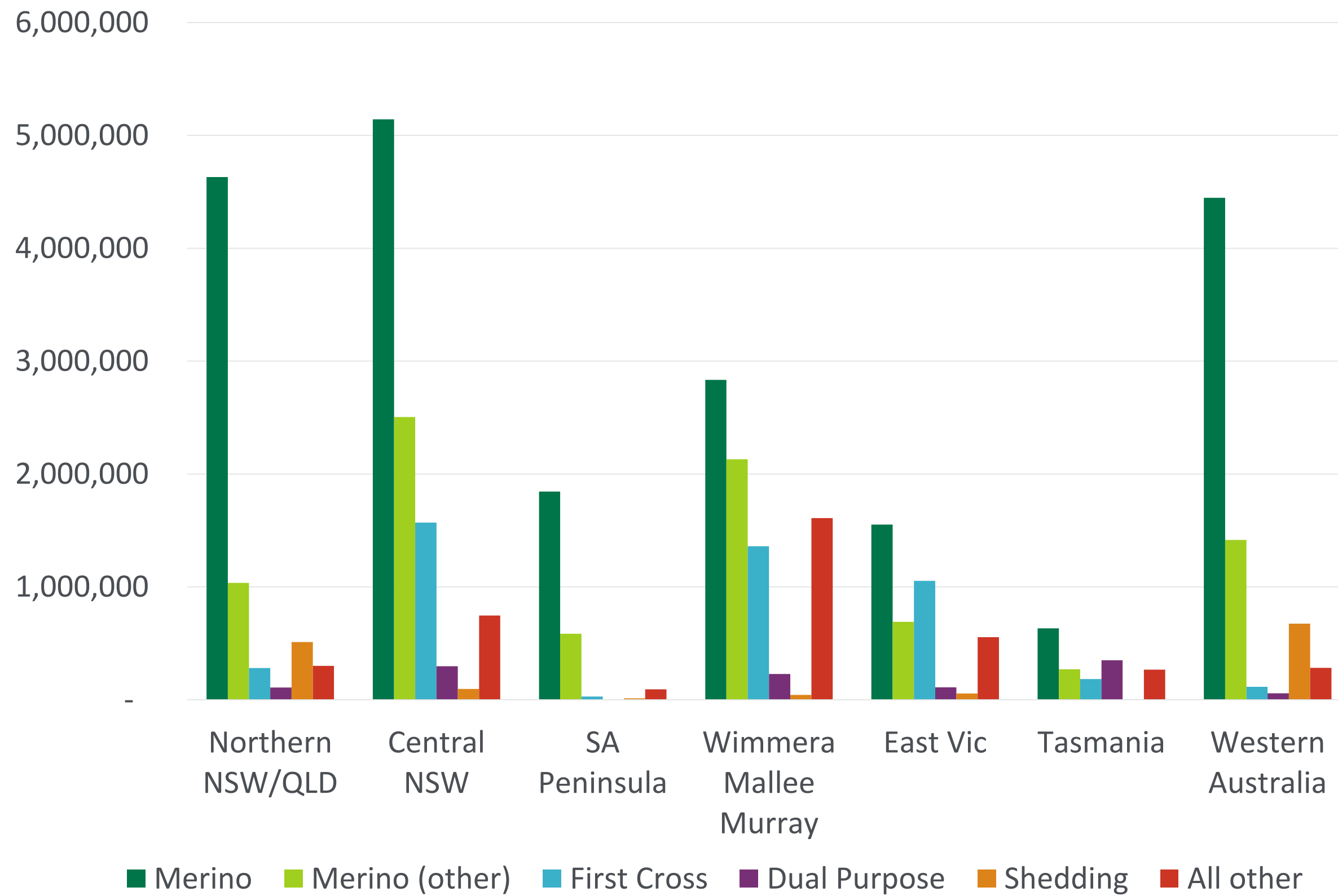




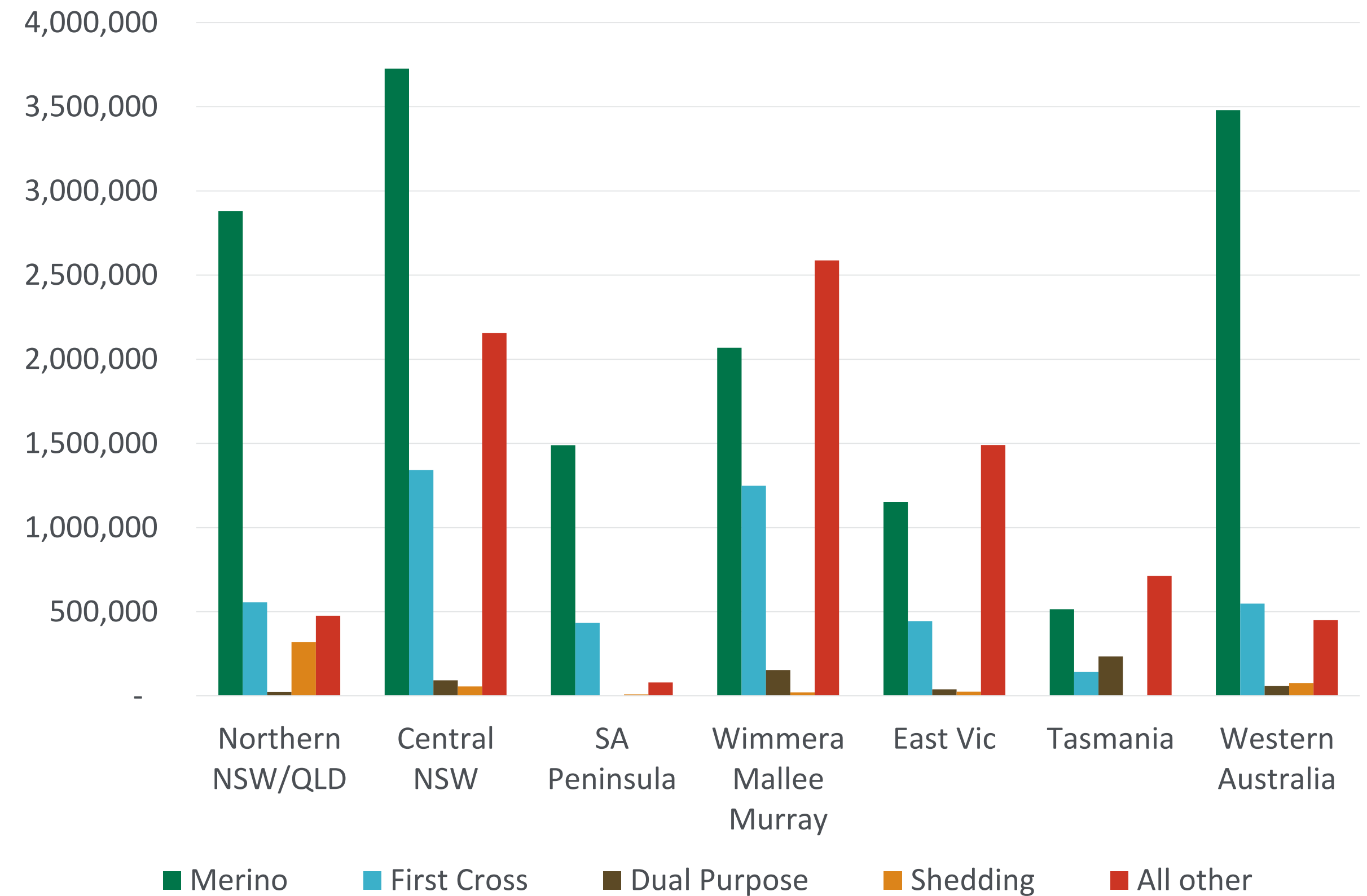
# Results by MLA Reporting Region

# Ewes on hand and lambs on hand 31 October – MLA reporting regions

Ewes on hand

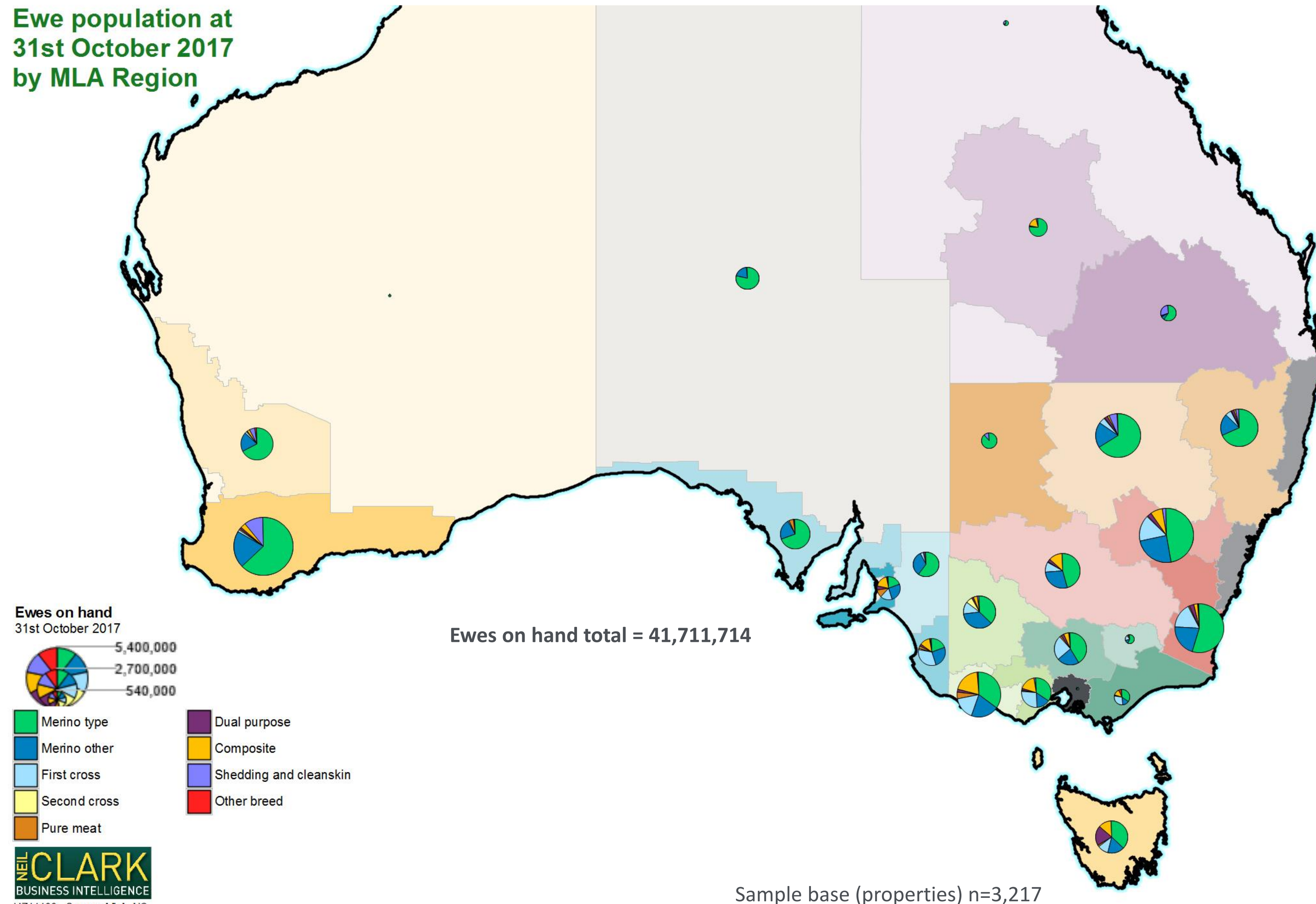


Lambs on hand



# Ewes on hand – MLA reporting regions

Ewe population at 31st October 2017 by MLA Region



The breeding ewe population was largest in Southern WA and the Central Western region NSW, with around 5.3 million and 4.4 million head, respectively.

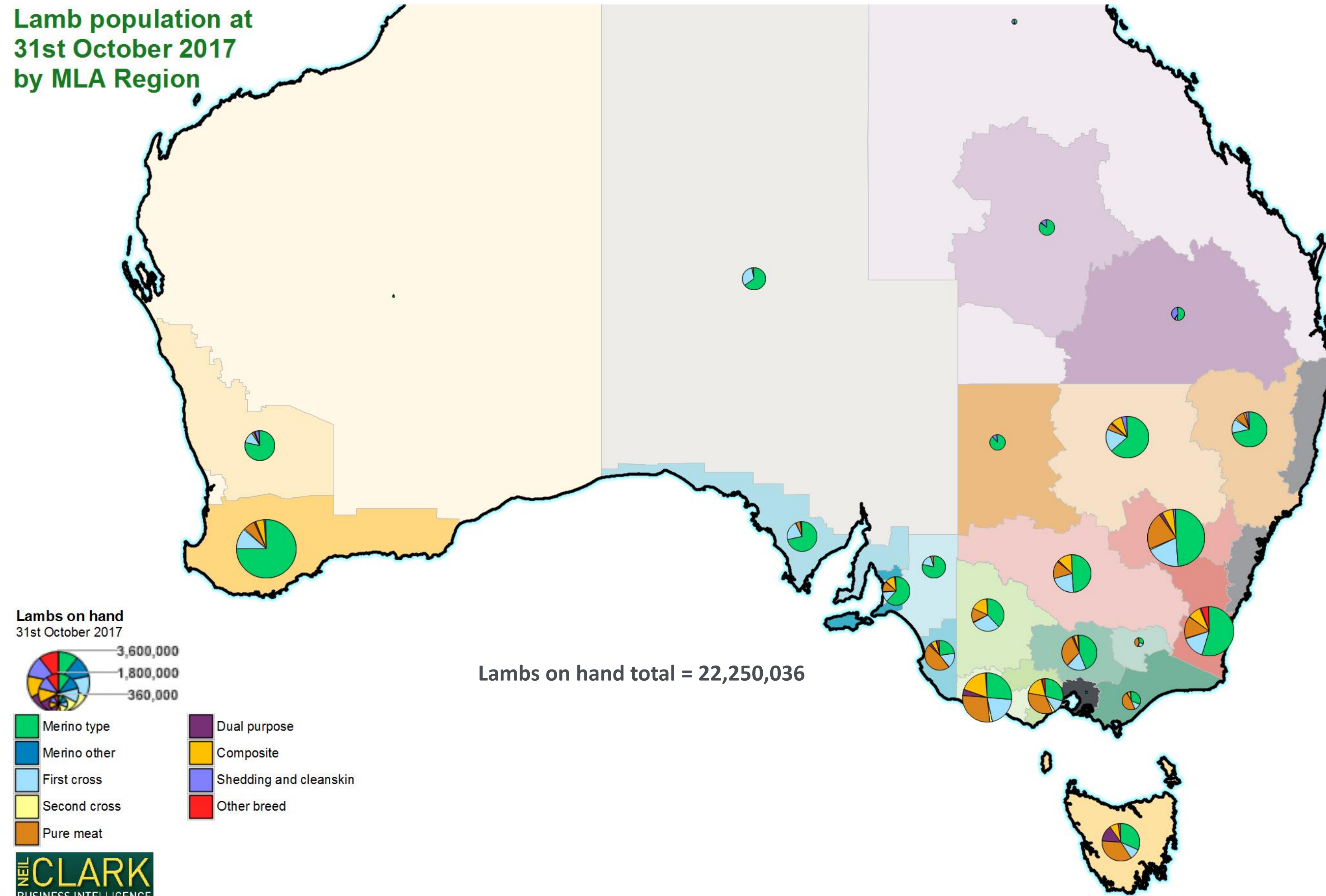
Although the largest ewe flock was recorded in NSW, with the North Western, Central West and South Eastern regions of the state each recording numbers greater than three million head, WA had the largest proportion of Merino's in their flock, at 91% (Merino + Merino other).

Conversely, the largest percentage of non-Merino ewes was in Victoria, with all non-Merino breeds combining to account for 42% of Victoria's breeding ewe population.



# Lambs on hand – MLA reporting regions

Lamb population at 31st October 2017 by MLA Region

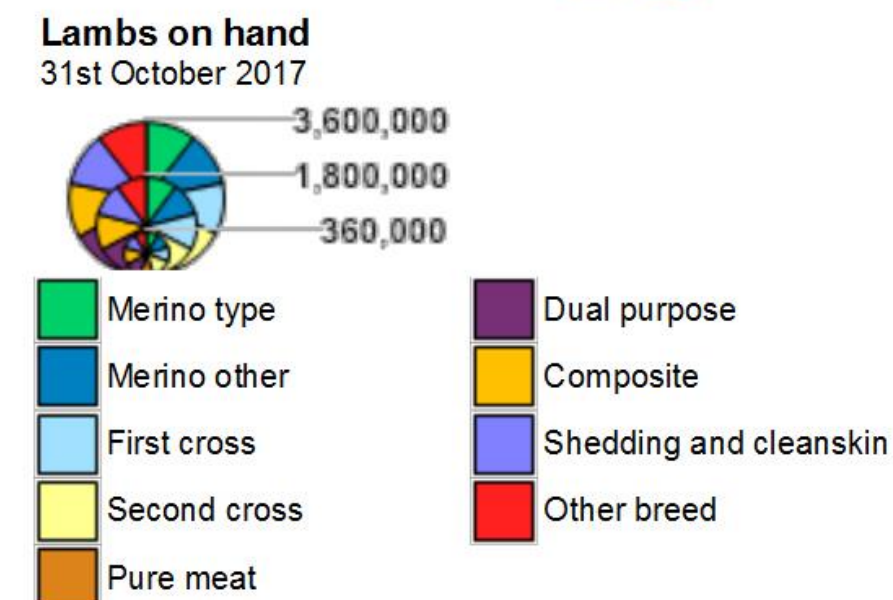


Lambs on hand total = 22,250,036

In line with a larger ewe flock population, the number of lambs on hand on 31 October were greatest in Southern WA, at around 3.6 million head. This was followed by the Central West NSW region, recording around 3.2 million head.

Although Merino's tended to be the most dominant breed of lamb across almost all regions, a large proportion of flocks in South East South Australia and Northern and Western regions of Victoria were made up of first cross and pure meat breeds. In South East SA, Ovens Murray and Loddon & Goulburn a combination of first cross and pure meat breeds accounted for 63%, 62% and 49% of total lamb flocks, respectively

While NSW had the largest Merino lamb flock nationally at around 15 million head, Merino's accounted for 75% of the 3.5m head Western Australian lamb flock. This was underpinned a significant proportion of Merino lambs coming through in the Central Midlands



Sample base (properties) n=3,217

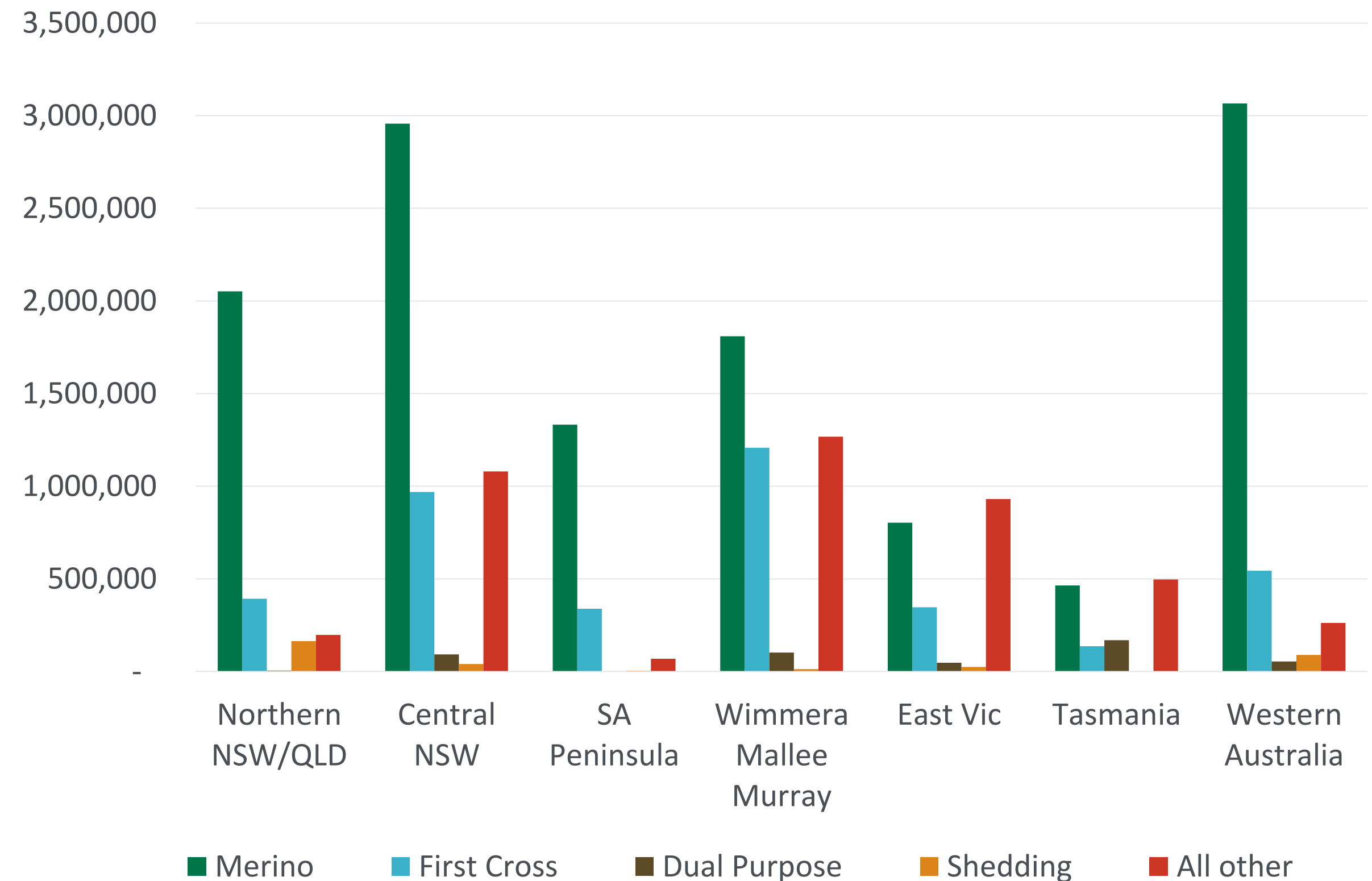


# Lambs marked in the past 4 months and Ewes joined to produce those lambs – MLA reporting regions

Lambs marked in the past 4 months 1 July – 31 October

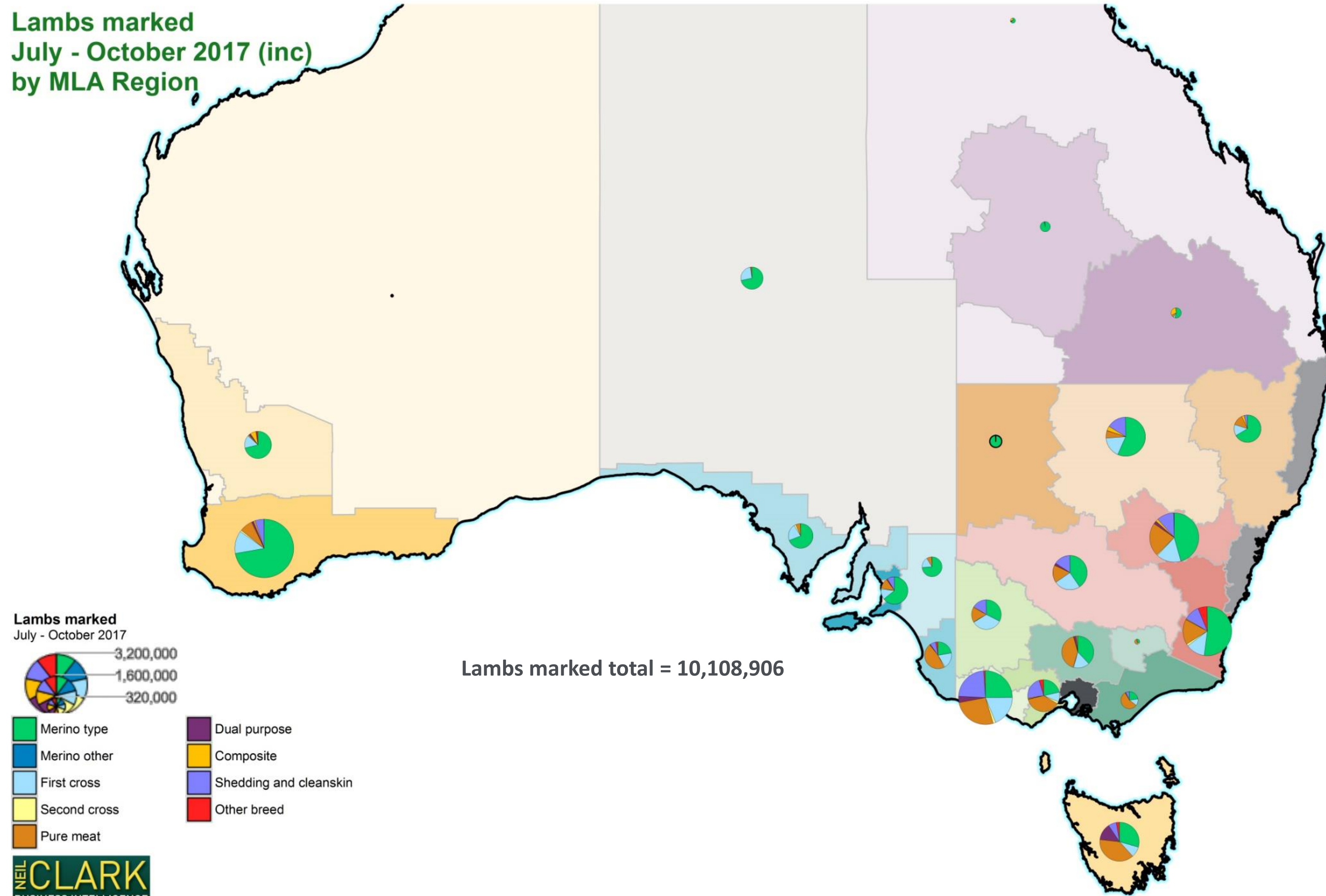


Ewes joined to produce those lambs



# Lambs marked in the past four months

Lambs marked  
July - October 2017 (inc)  
by MLA Region



Lambs marked total = 10,108,906

Around 23.8 million spring lambs were marked over the past four months. Southern WA, Western Districts VIC and Central West NSW accounted for a large proportion of new lambs, with markings of 3.2m, 2.7m and 2.3m head respectively.

Lambs marked  
July - October 2017

3,200,000  
1,600,000  
320,000

- Merino type
- Merino other
- First cross
- Second cross
- Pure meat
- Dual purpose
- Composite
- Shedding and cleanskin
- Other breed

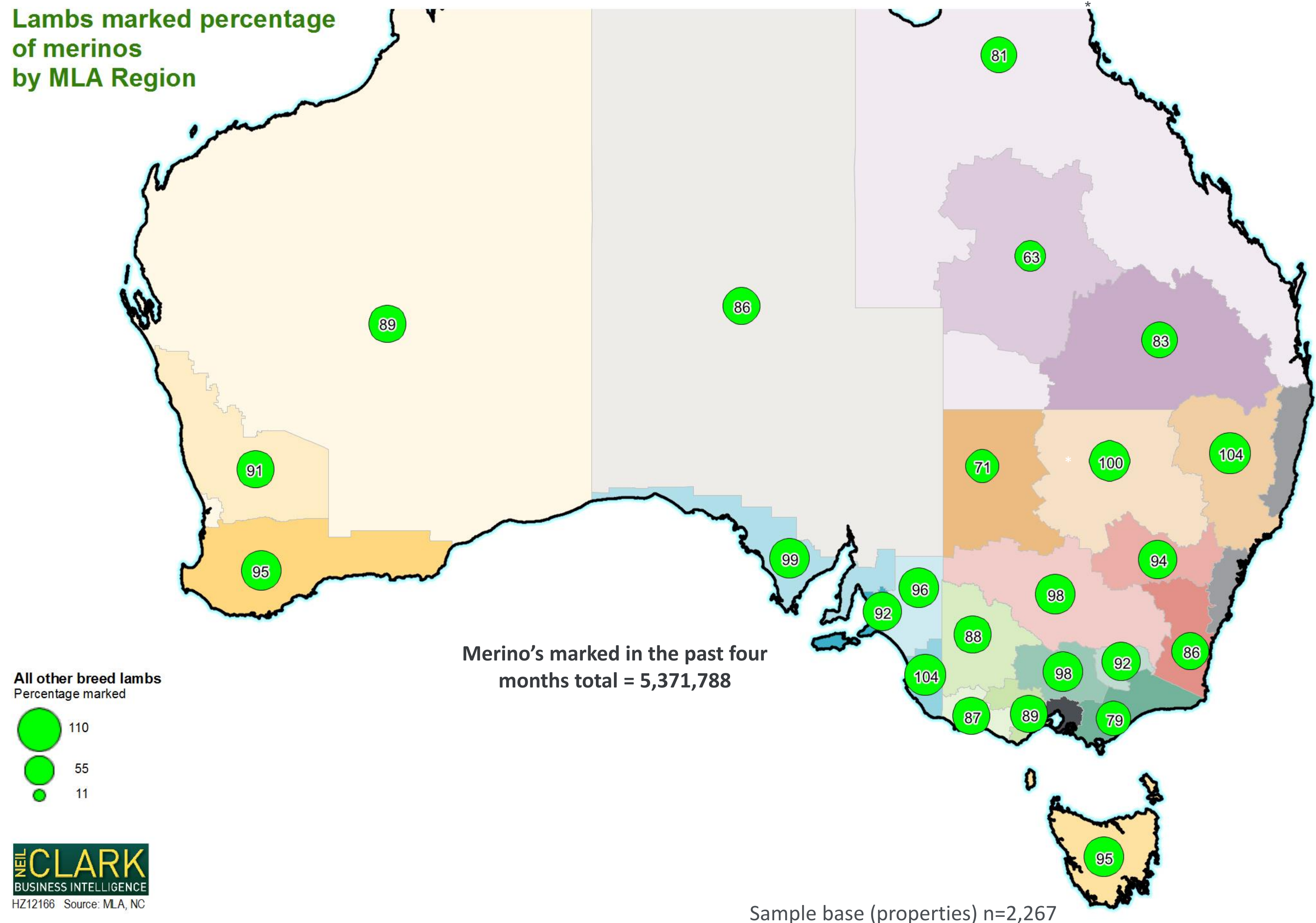
**NEIL CLARK**  
BUSINESS INTELLIGENCE  
HZ11133 Source: MLA, NC

Sample base (properties) n=3,217



# Merino marking rates - MLA reporting regions

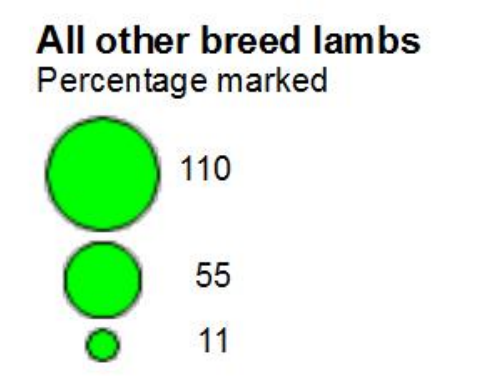
Lambs marked percentage of merinos by MLA Region



The highest Merino marking rate was recorded in the in the South East of SA and the Hunter and Northern NSW (both 104%). Conversely, the lowest marking rates were recorded Central Queensland and the Western Division of NSW with 63% and 71%, respectively

On a state basis, Queensland had the lowest marking rate at 68%, while TAS, WA and SA recorded the highest Merino marking rates of 95%, 94% and 94%, respectively.

**Note:** These marking rates are for the period between 1 July and 31 October 2017 and are not an accurate representation of annual marking rates.



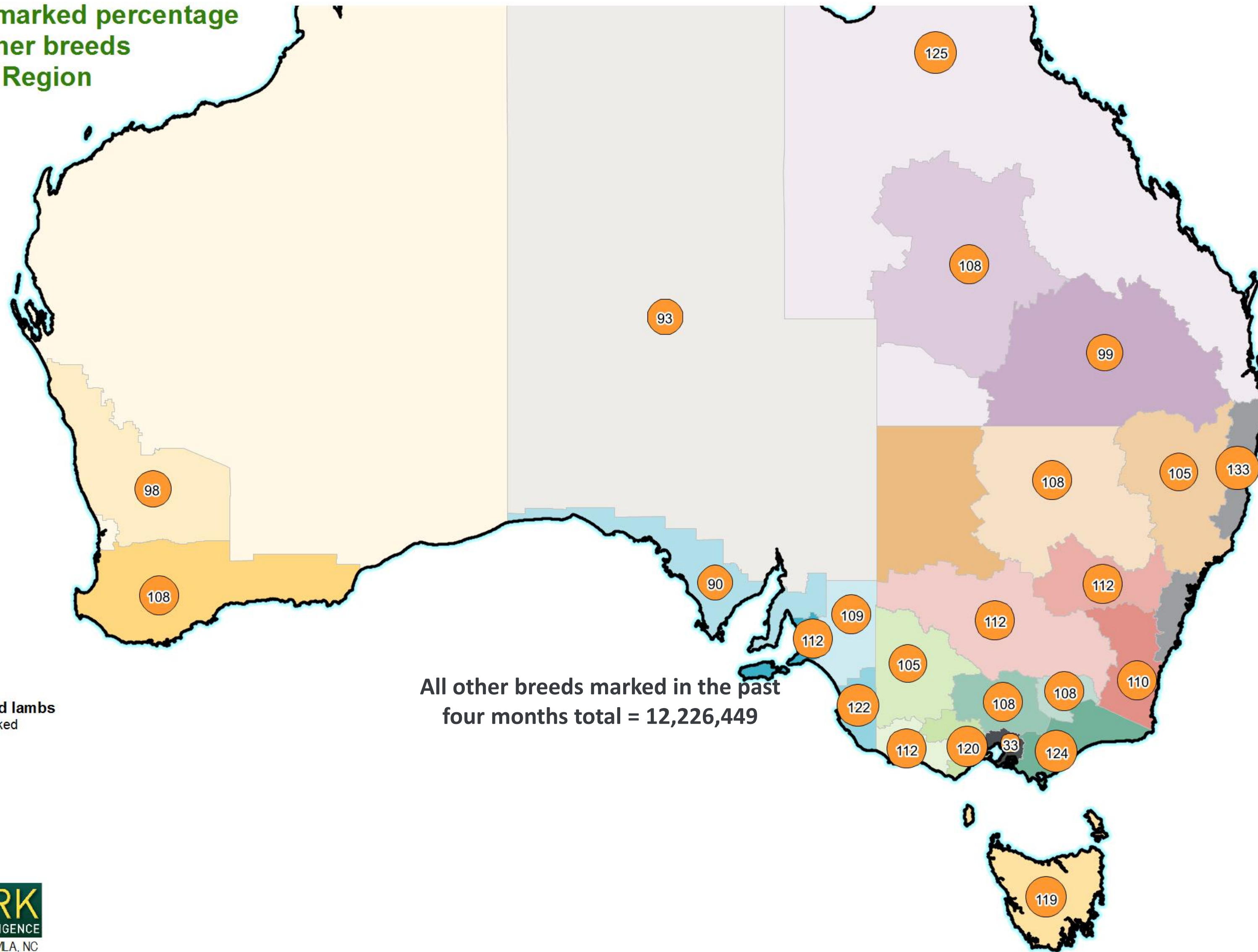
Merino's marked in the past four months total = 5,371,788

Sample base (properties) n=2,267



# All other breed marking rates - MLA reporting regions

Lambs marked percentage of all other breeds by MLA Region



All other breeds marked in the past four months total = 12,226,449

The Gippsland region of Victoria and South East SA recorded the highest marking rates for non-Merino lambs at 124% and 122%, respectively. These were both consistent with strong marking rates across both states, with Victoria averaging 112% and SA averaging 109%.

On a state basis, Tasmania recorded the highest non-merino marking rates at 119%, a stark contrast from the 95% Merino marking rate reported over the same period.

**Note:** These marking rates are for the period between 1 July 2017 and 31 October 2017. 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.

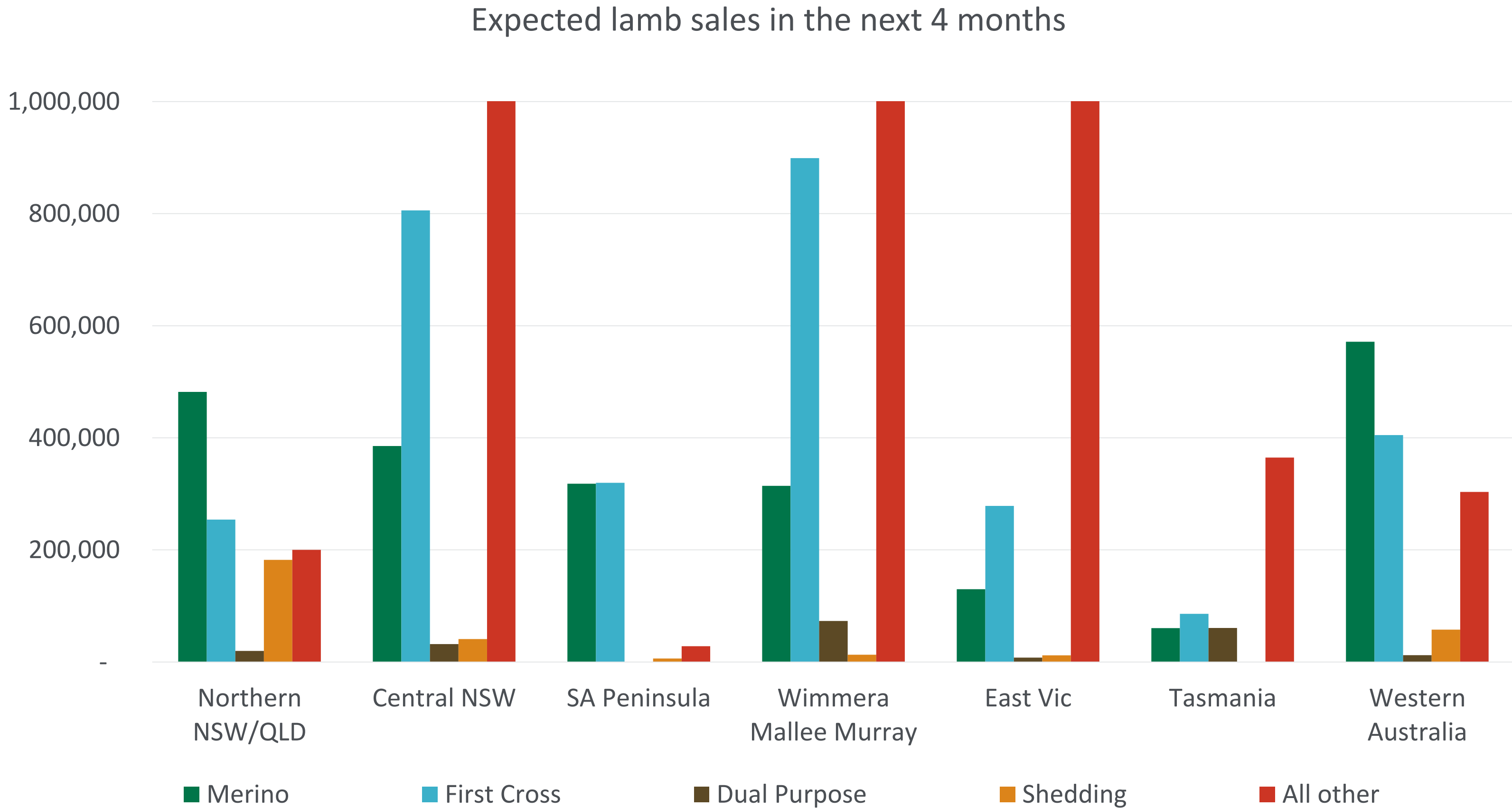
All other breed lambs  
Percentage marked

- 140
- 70
- 14

Sample base (properties) n=1,638

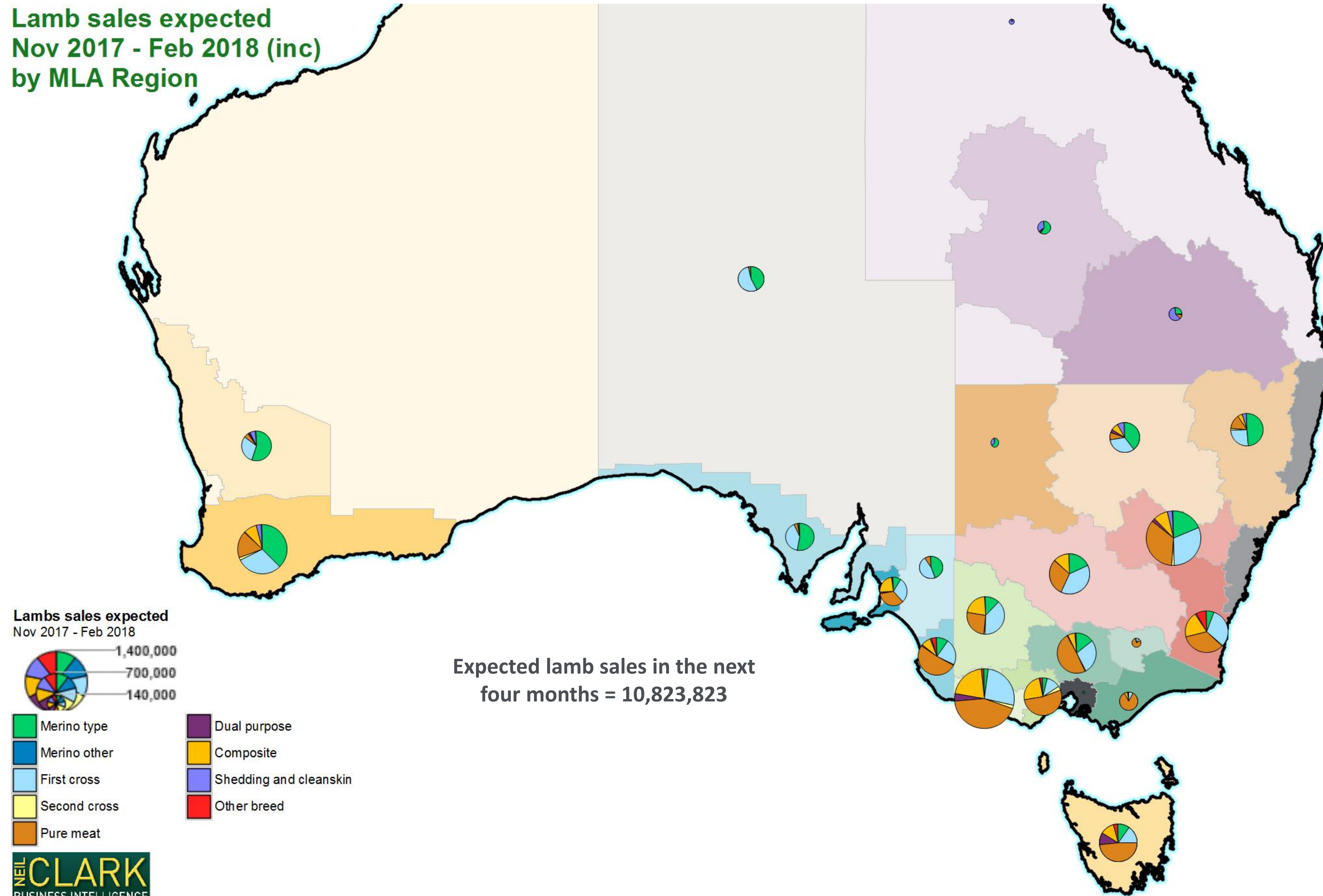


# Expected lamb sales in next four months 1 November 2017 – 28 February 2018 – MLA reporting regions



# Expected lamb sales in next four months

Lamb sales expected  
Nov 2017 - Feb 2018 (inc)  
by MLA Region



Over the next four months (1 November 2017 to 28 February 2018), most lamb sales are expected to occur in the Western Districts region of VIC, with the sale of Merino's and first cross lambs combining to account for 29% of the lamb sales in the region.

Although Merino's are expected to dominate WA lamb sales over the next four months (1 November 2017 to 28 February 2018), first crosses and pure meat breads combined to account for 70% of lamb sales in Victoria, 61% in SA and 44% in WA.

NSW is expected to account for 33% of total lamb sales over the next four months, with more than 3.5 million lambs expected to be on offer. This is followed by Victoria, SA and WA, accounting for 31%, 17% and 12% of total lamb sales, respectively.

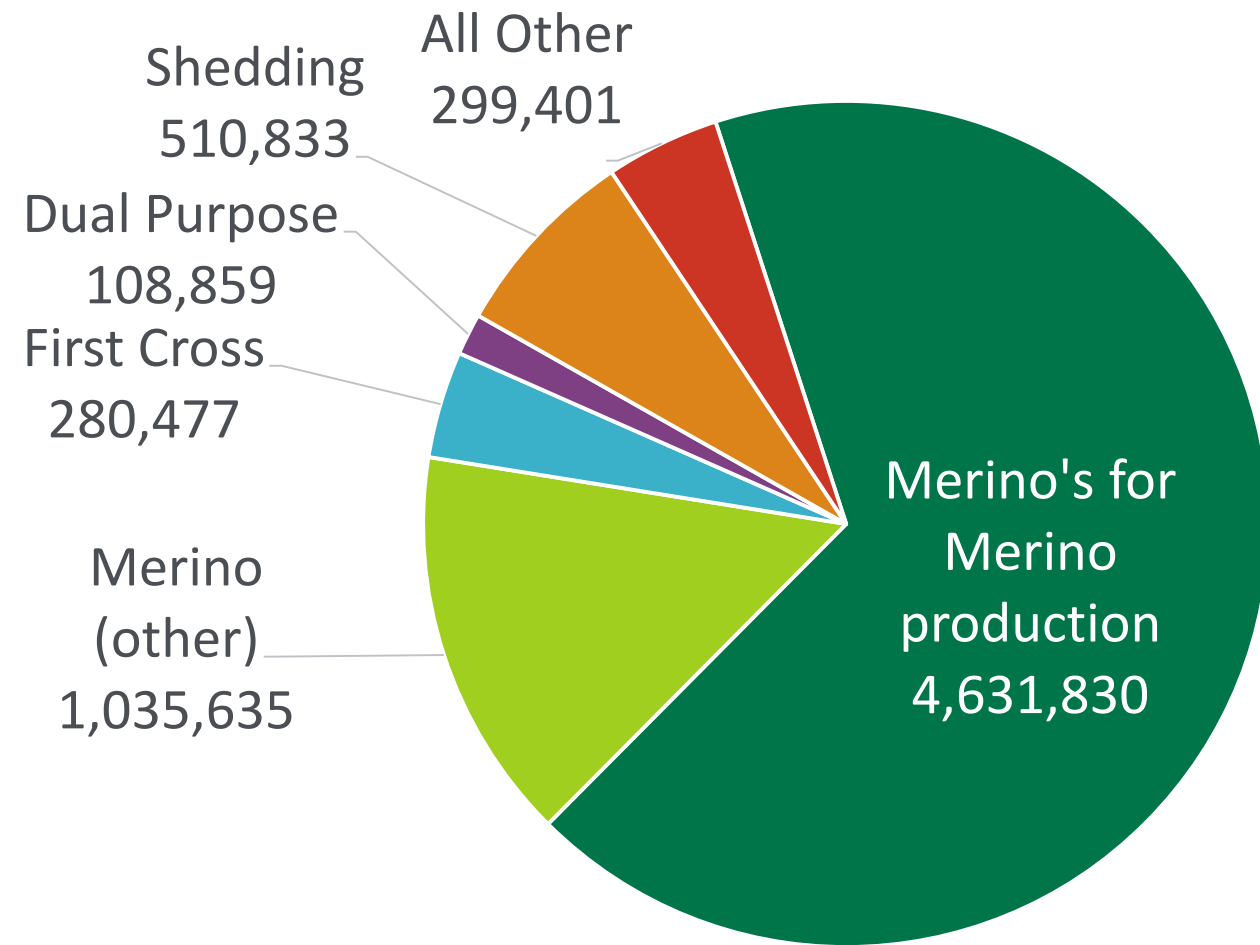
Sample base (properties) n=3,217

# Regional Snapshots

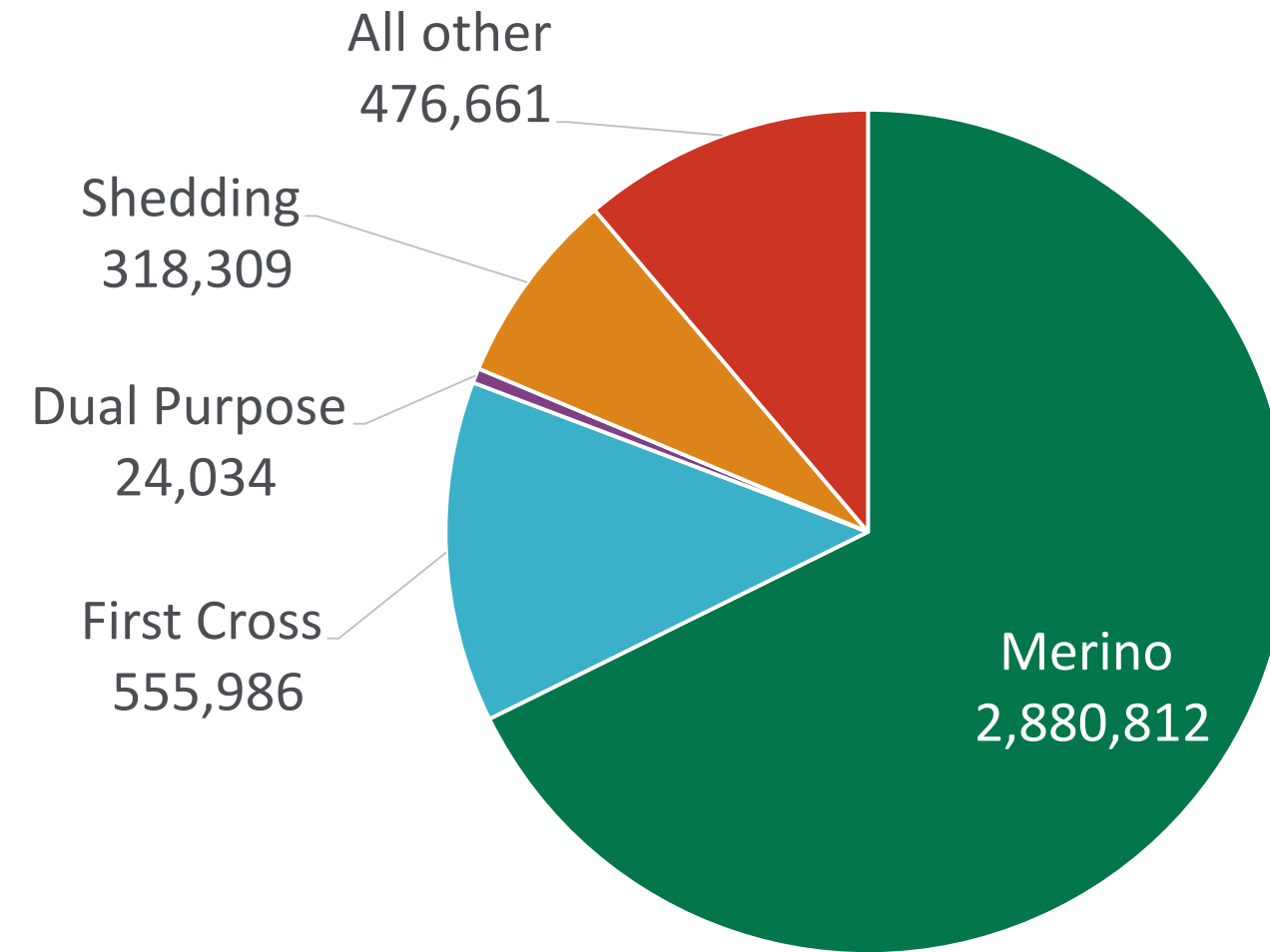


# Northern NSW/QLD

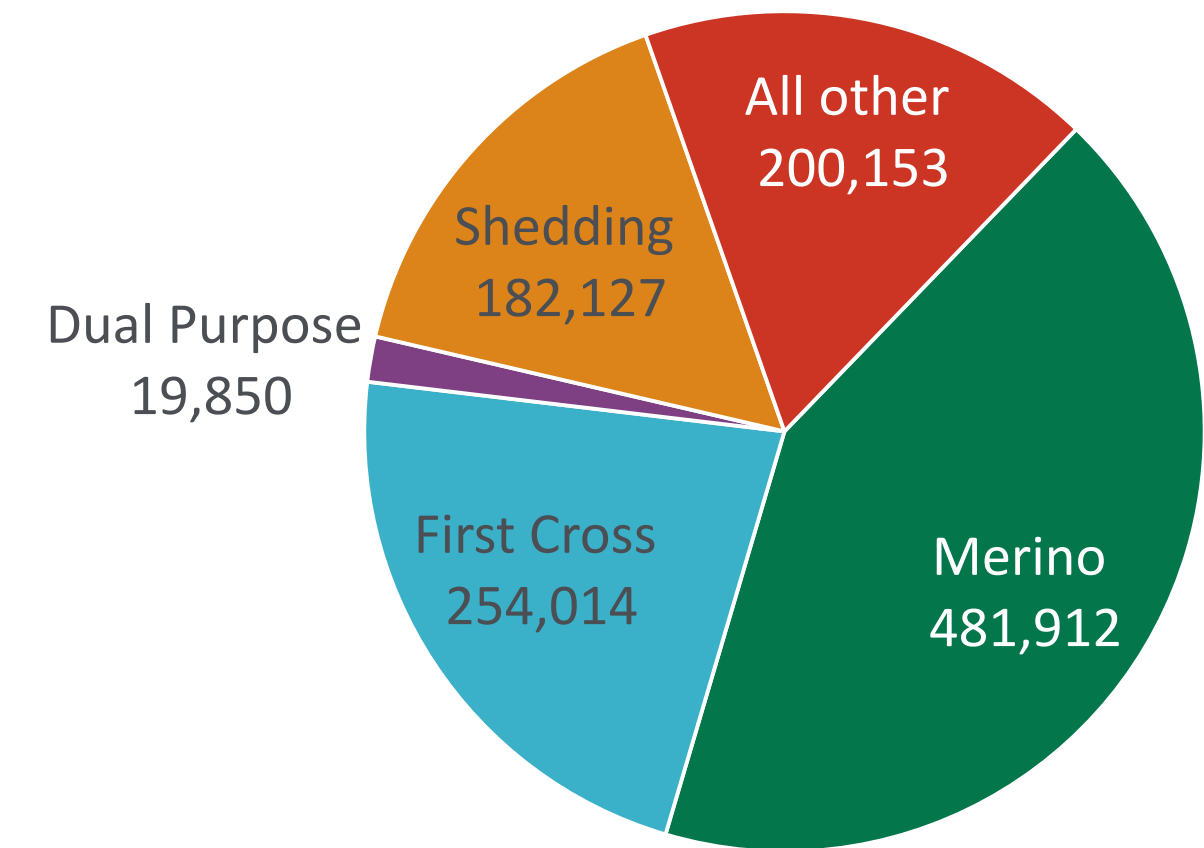
Breeding ewes on hand



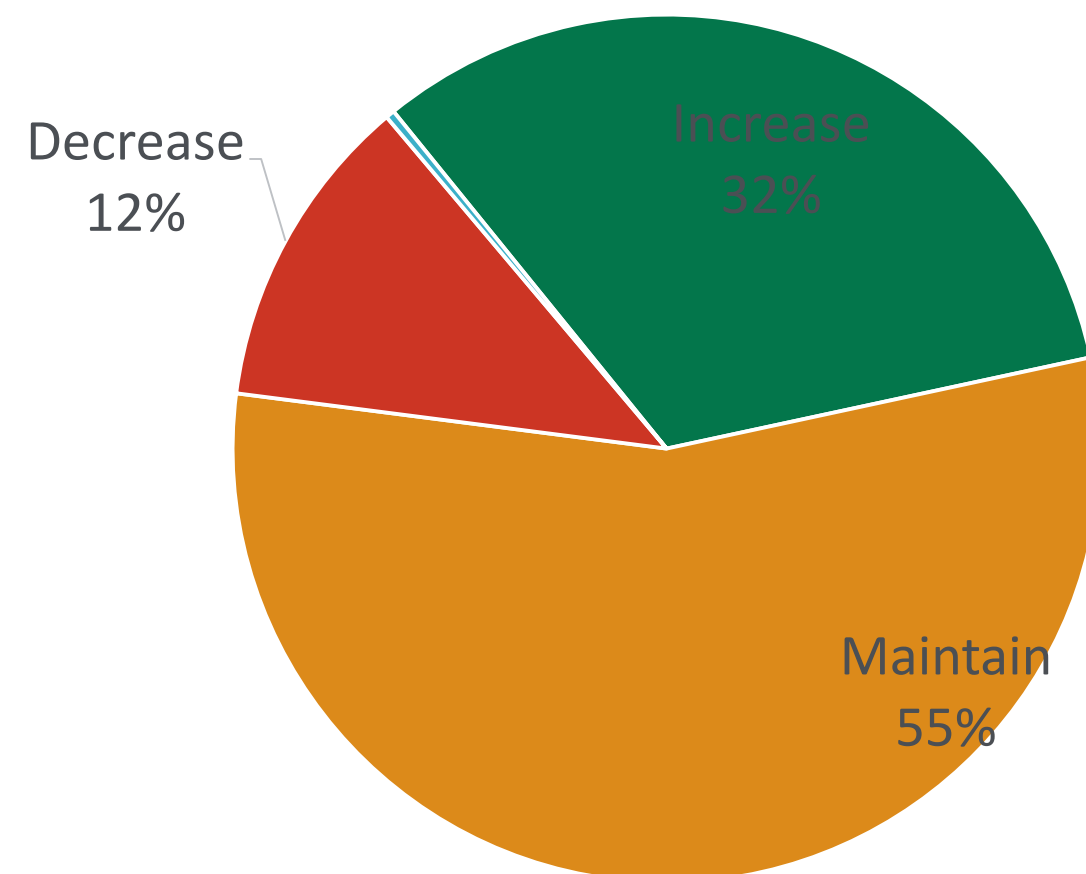
Lambs on hand



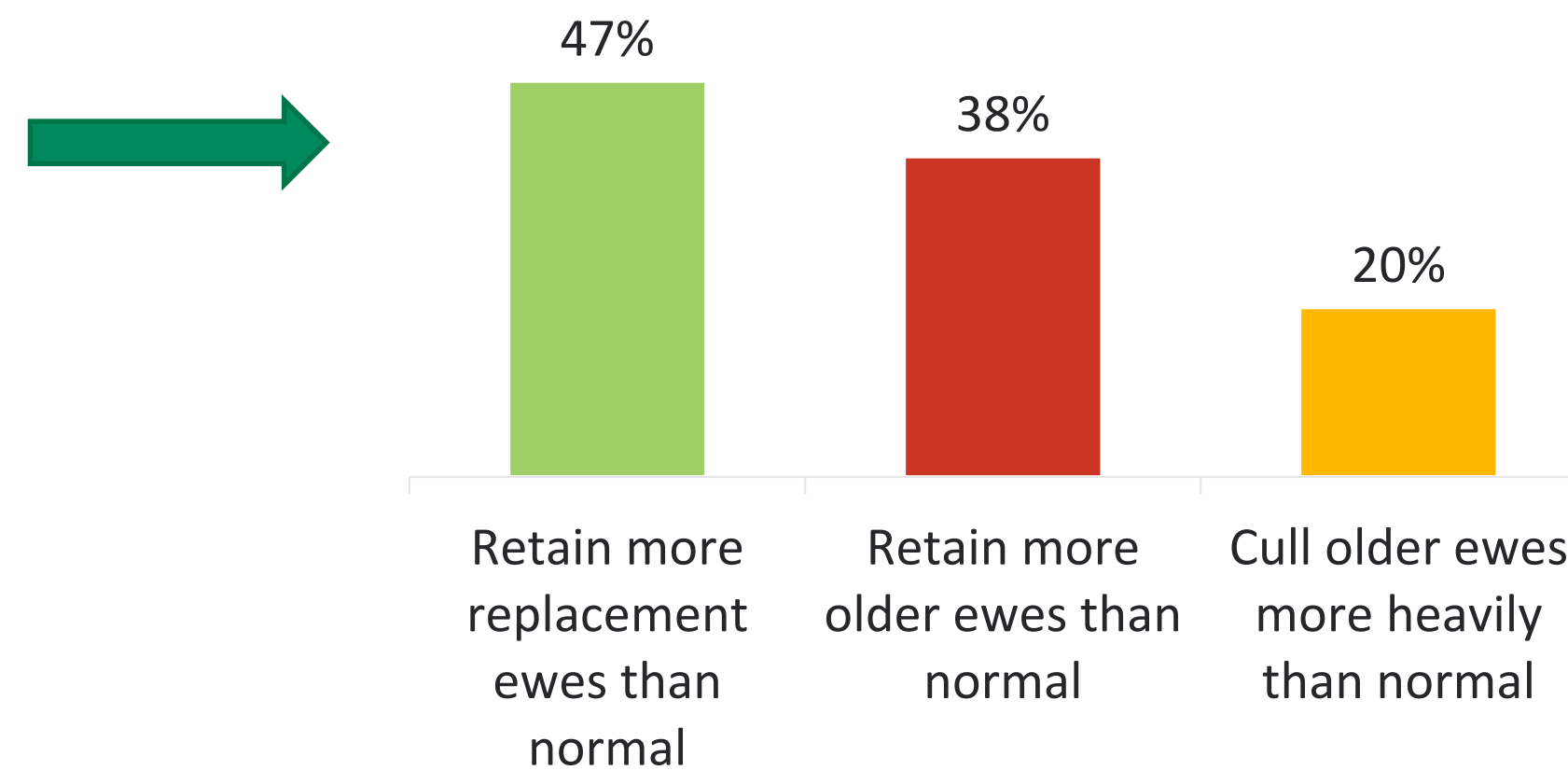
Lamb sales in next 4 months



Flock intentions



How to achieve increase



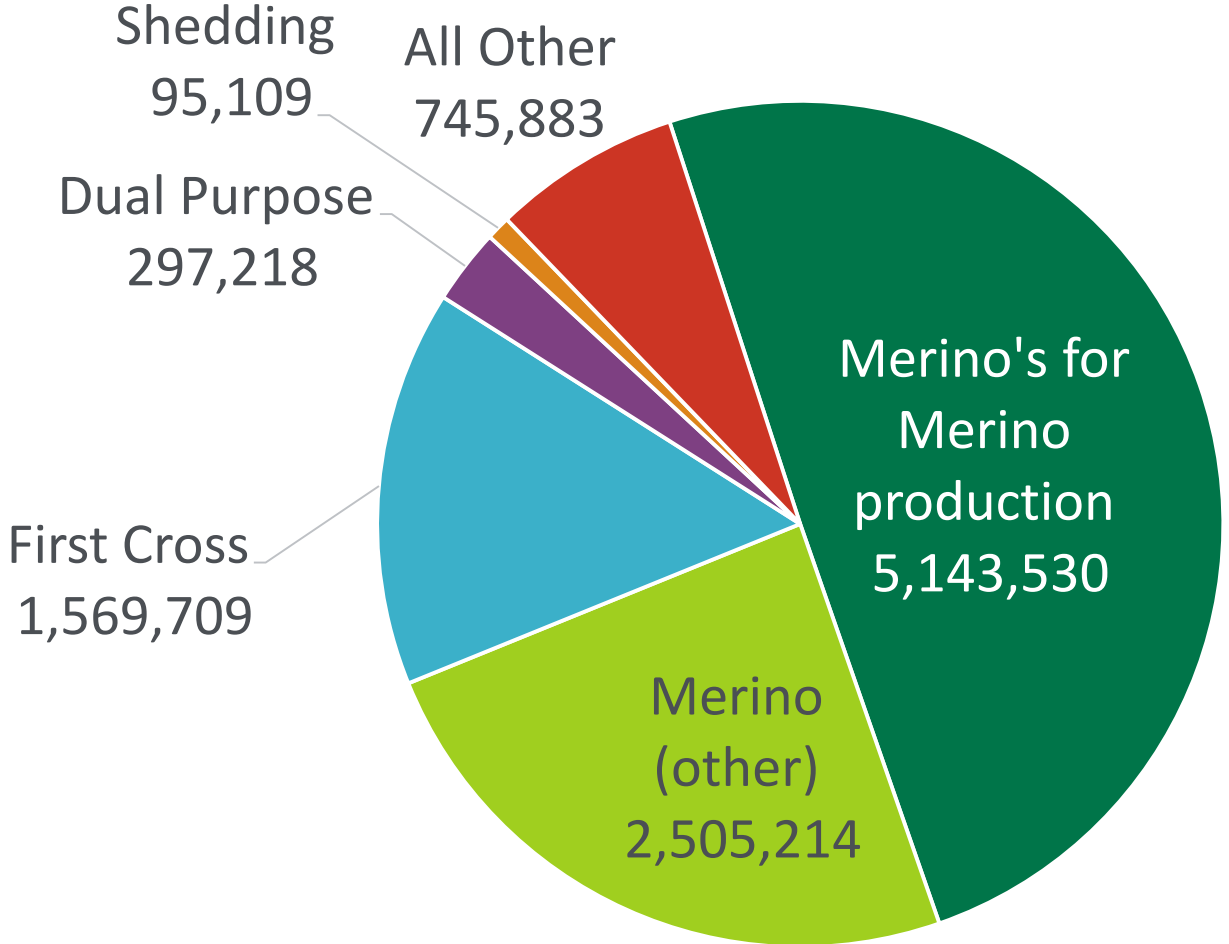
Totals

Breeding ewes on hand	6,867,035
Lambs on hand	4,255,801
Expected lamb sales in the next 4 months	1,138,055
Lambs marked in the past 4 months (1 Mar – 30 Jun)	2,980,192
Number of ewes joined to produce marked lambs	3,078,792

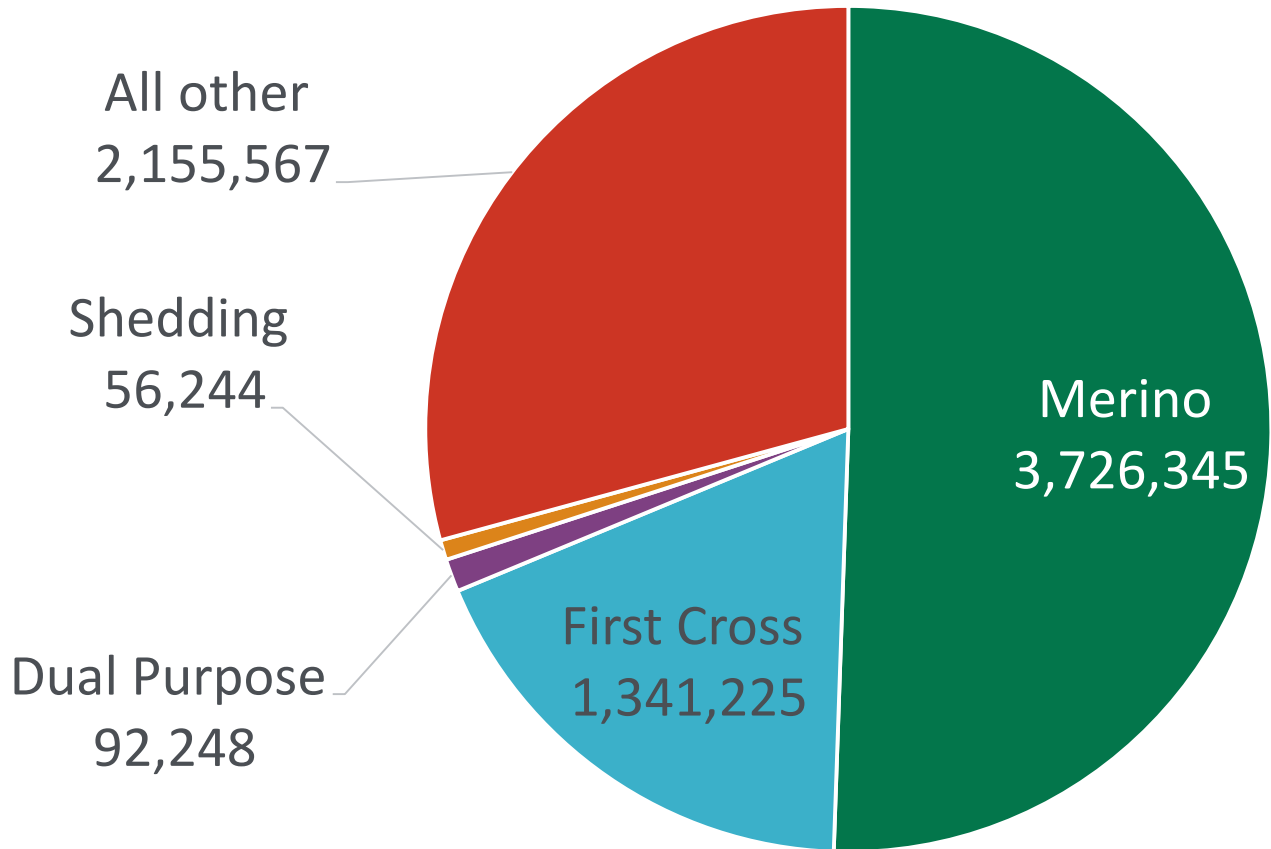


# Central NSW

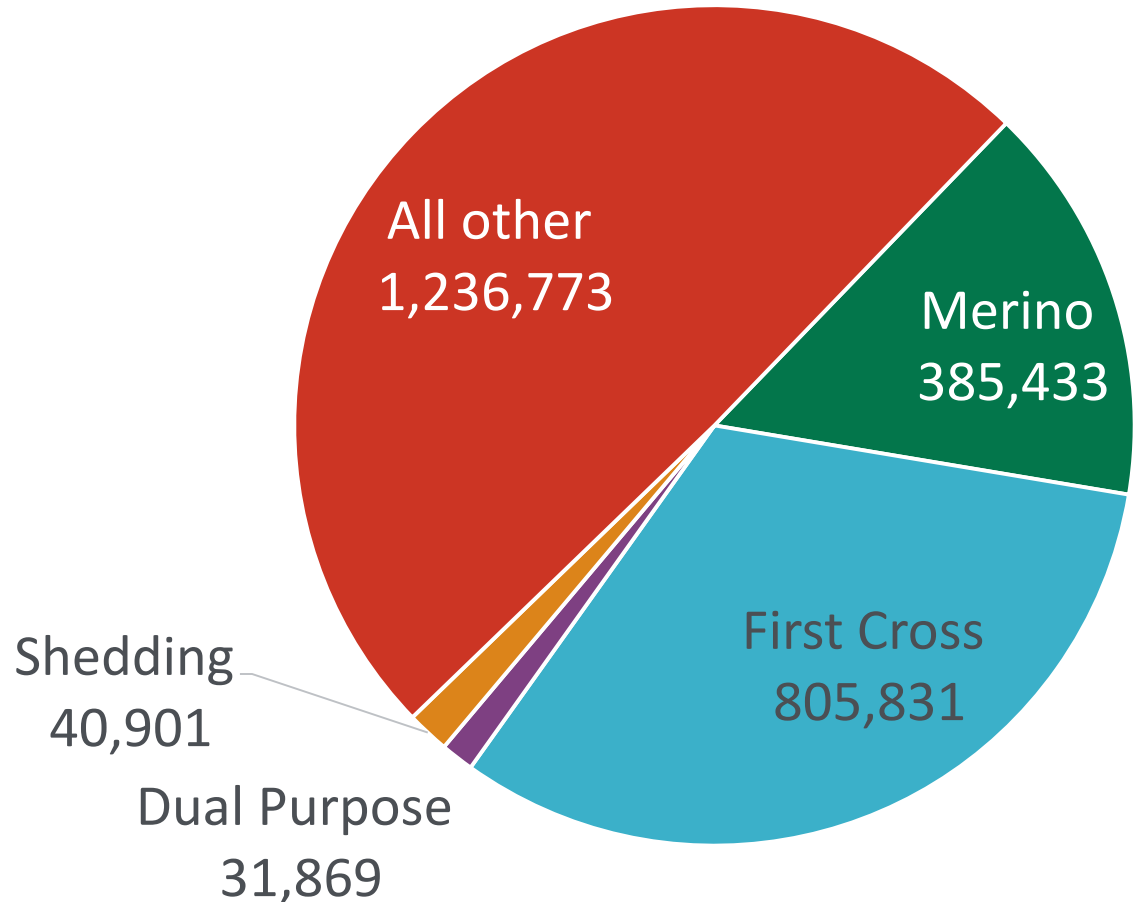
Breeding ewes on hand



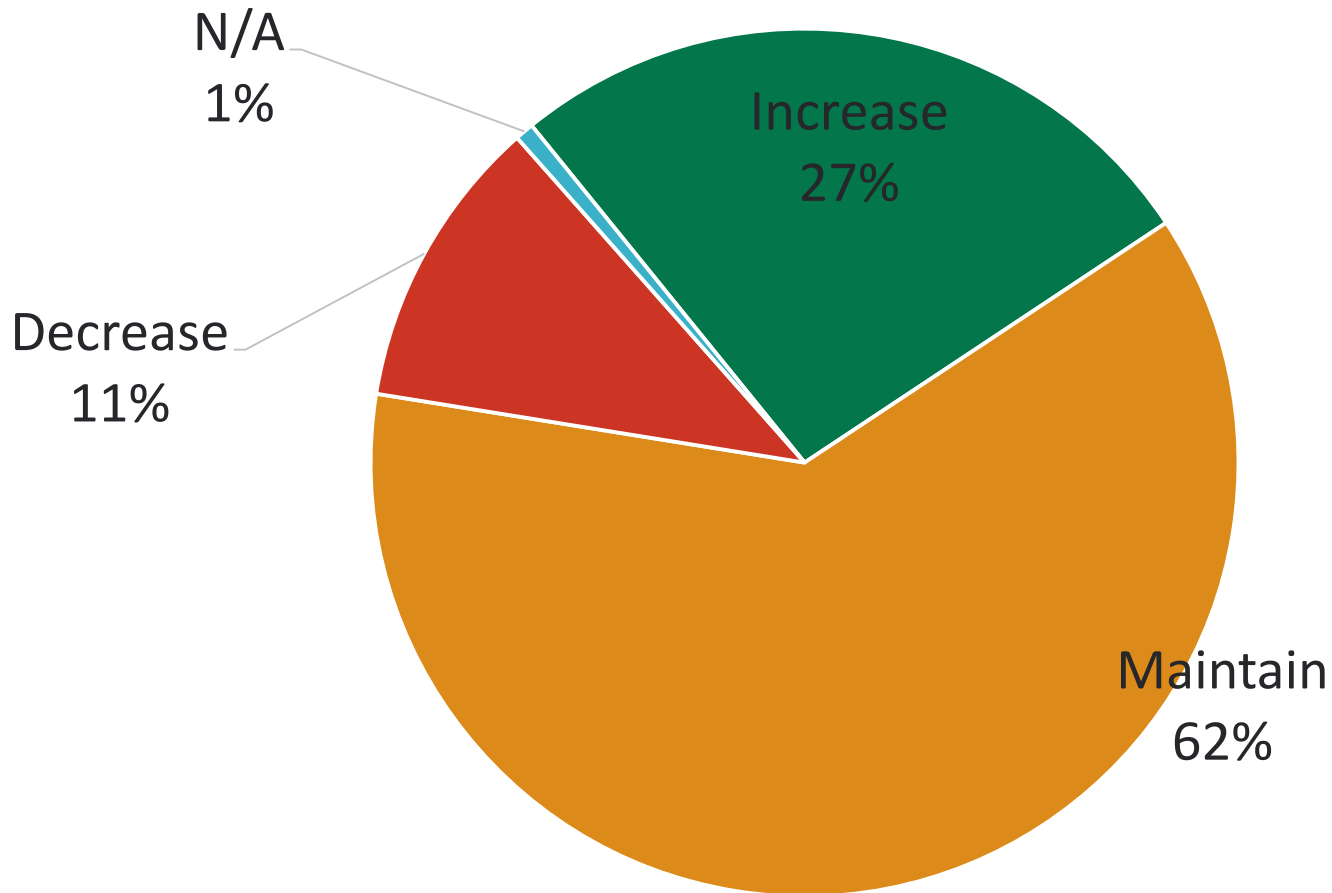
Lambs on hand



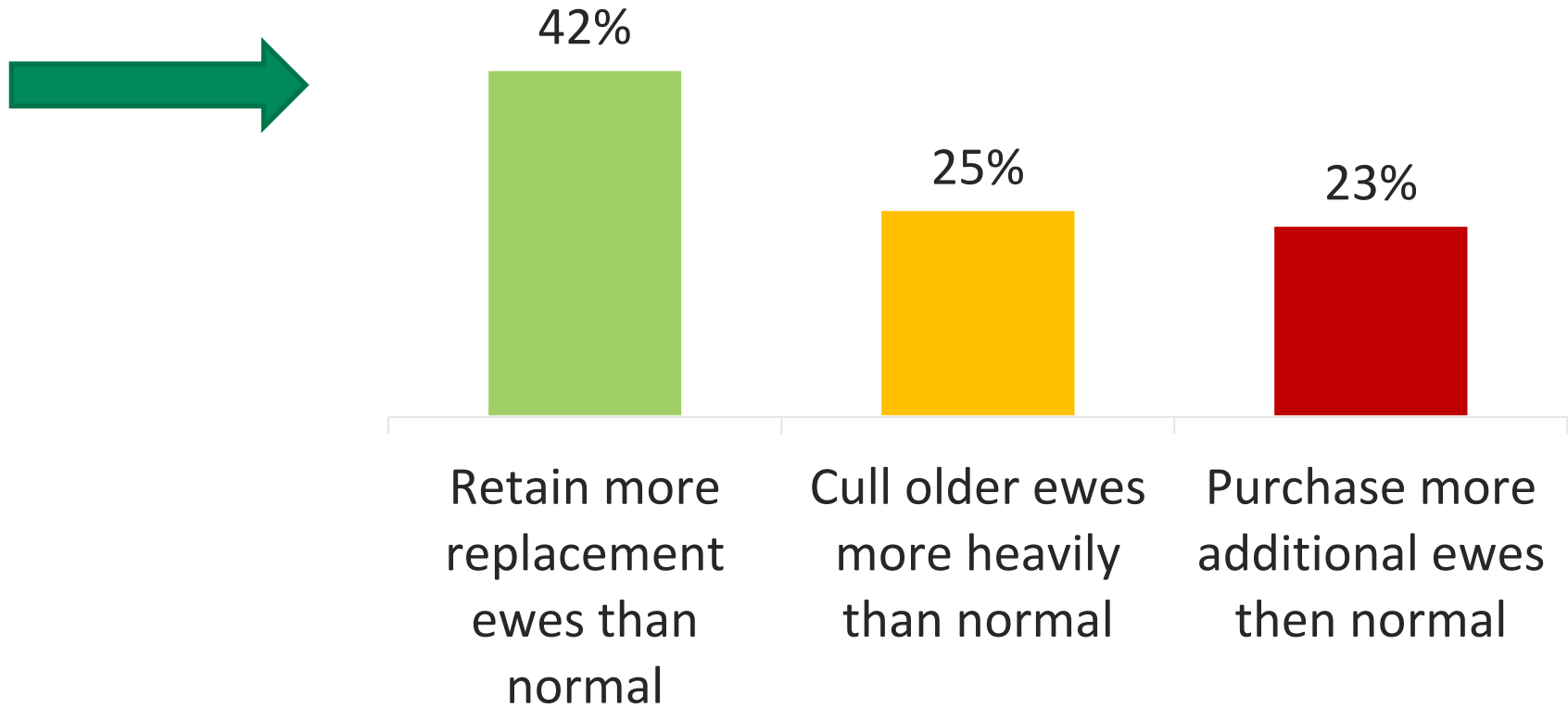
Lamb sales in next 4 months



Flock intentions



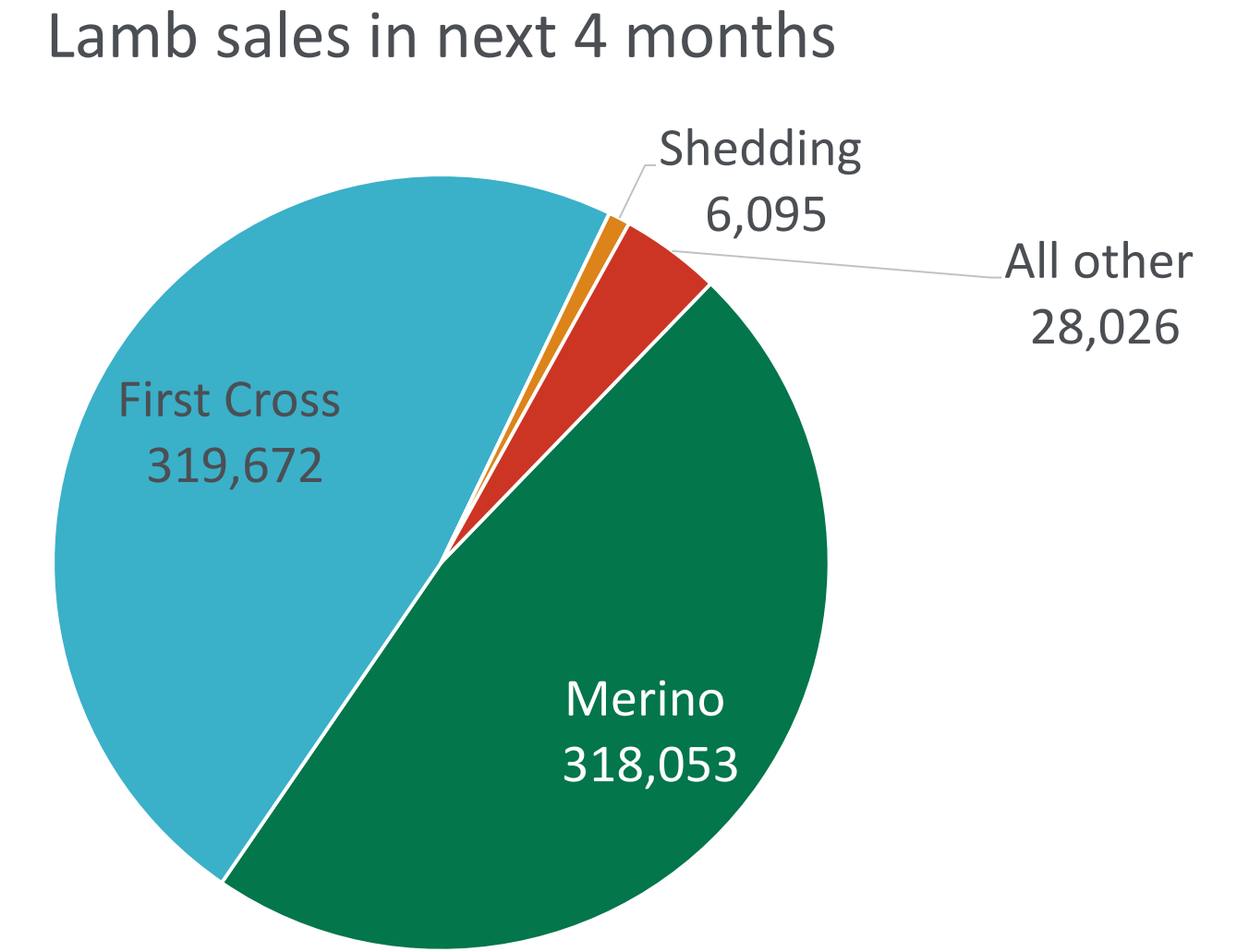
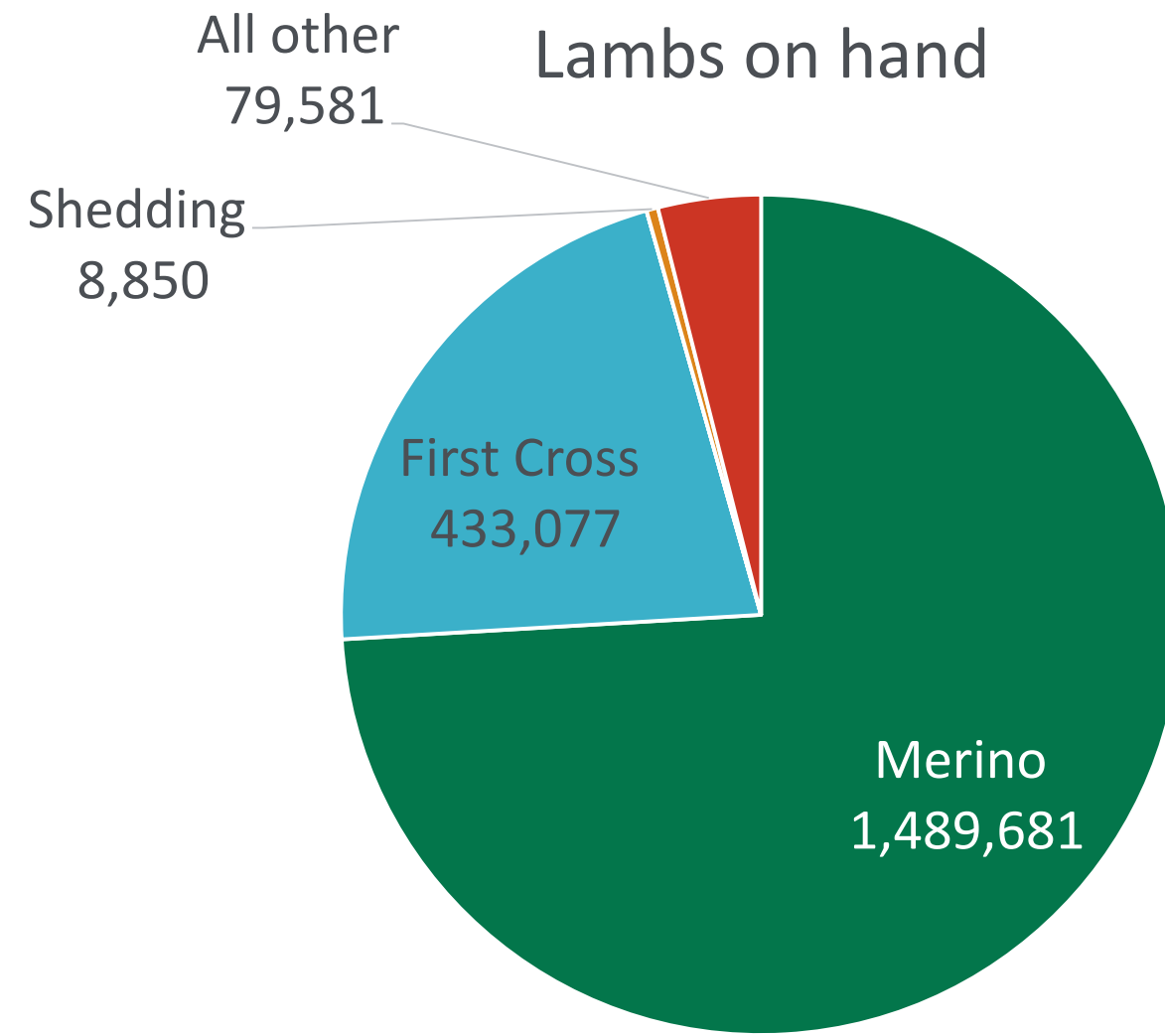
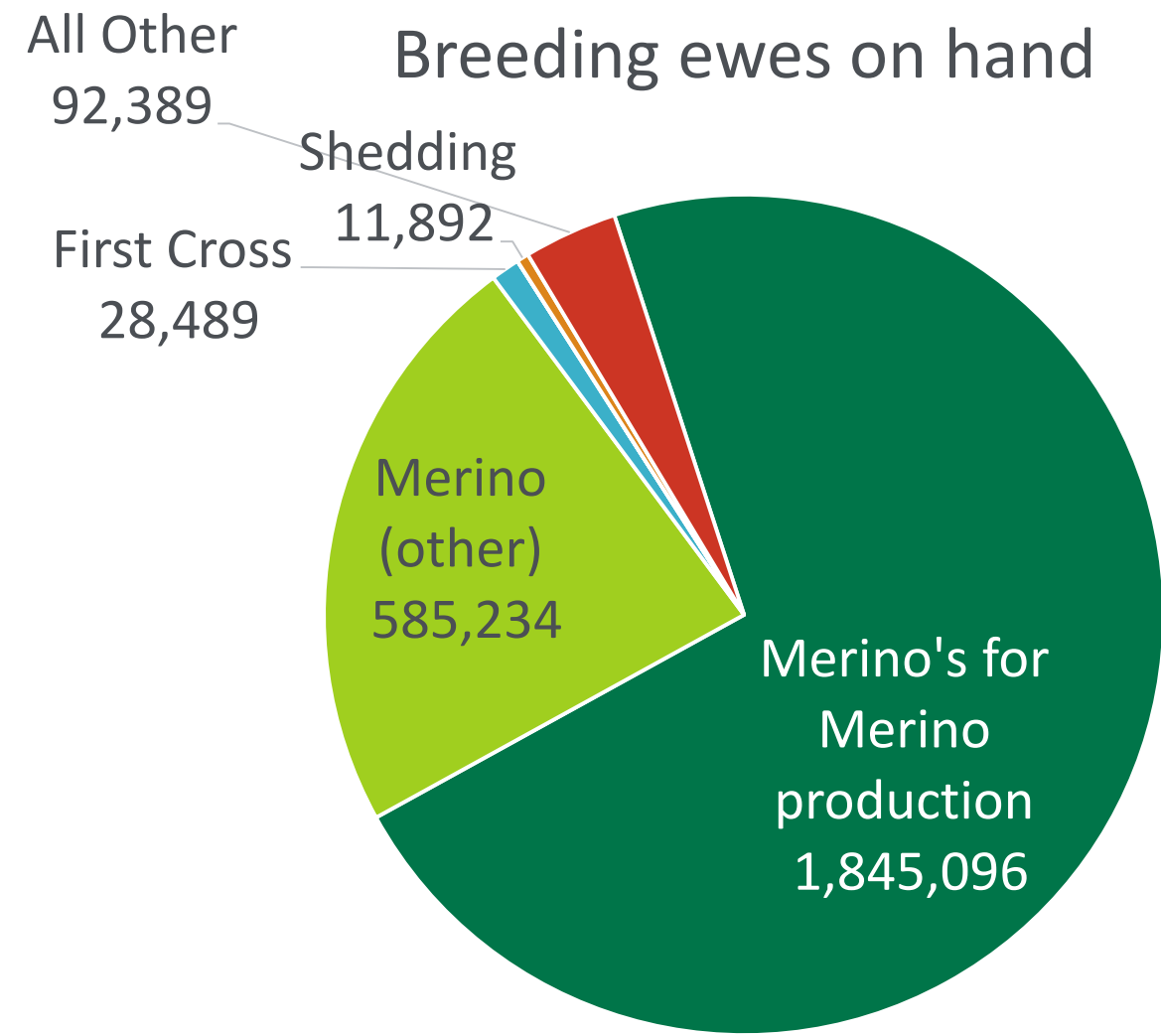
How to achieve increase



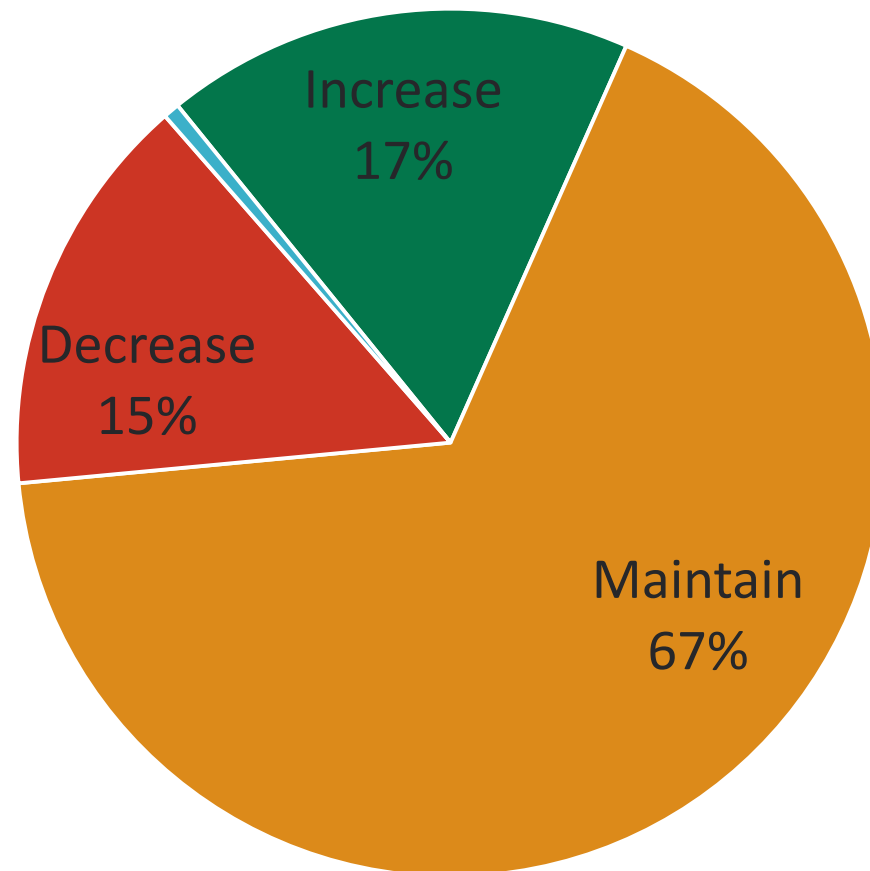
Totals

Breeding ewes on hand	10,356,663
Lambs on hand	7,371,630
Expected lamb sales in the next 4 months	2,500,807
Lambs marked in the past 4 months (1 Mar – 30 Jun)	5,715,606
Number of ewes joined to produce marked lambs	5,665,936

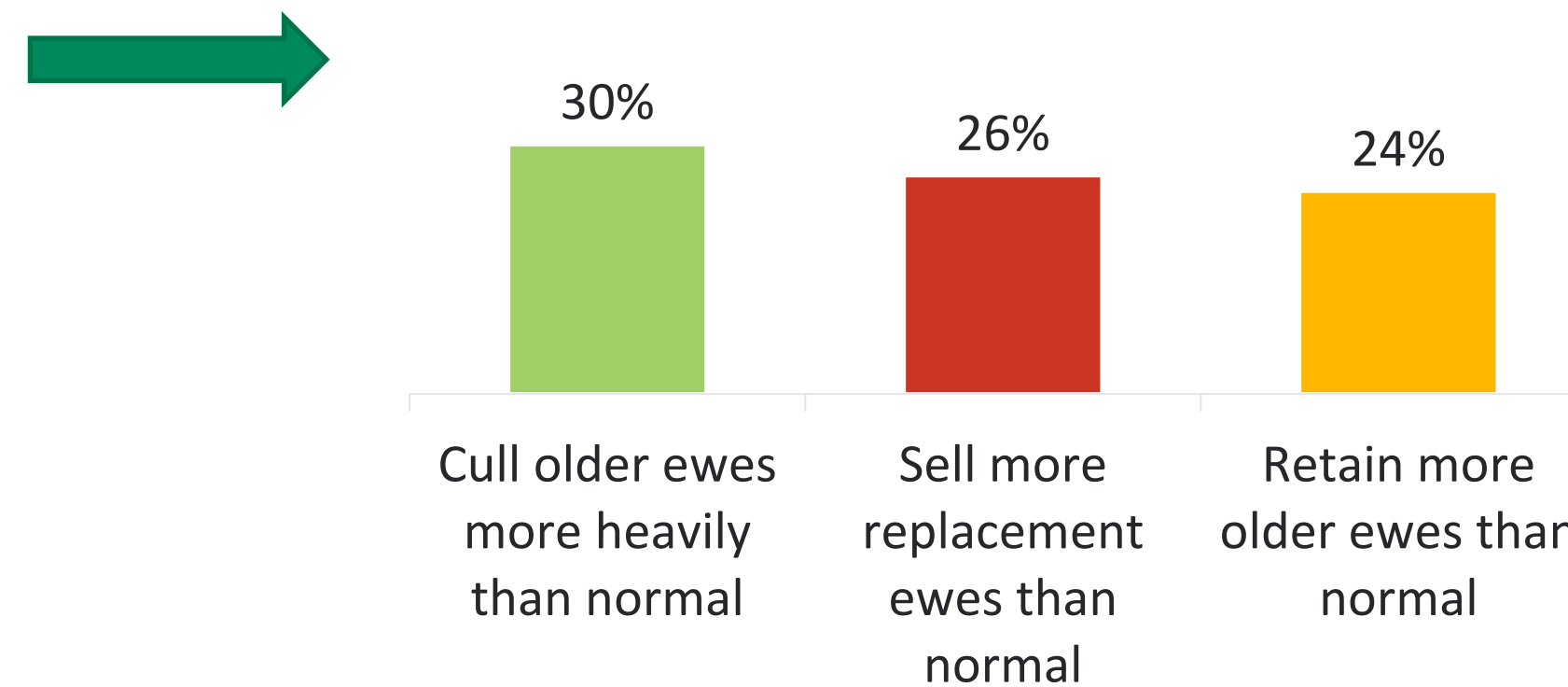
# SA Peninsula



Flock intentions



How to achieve increase

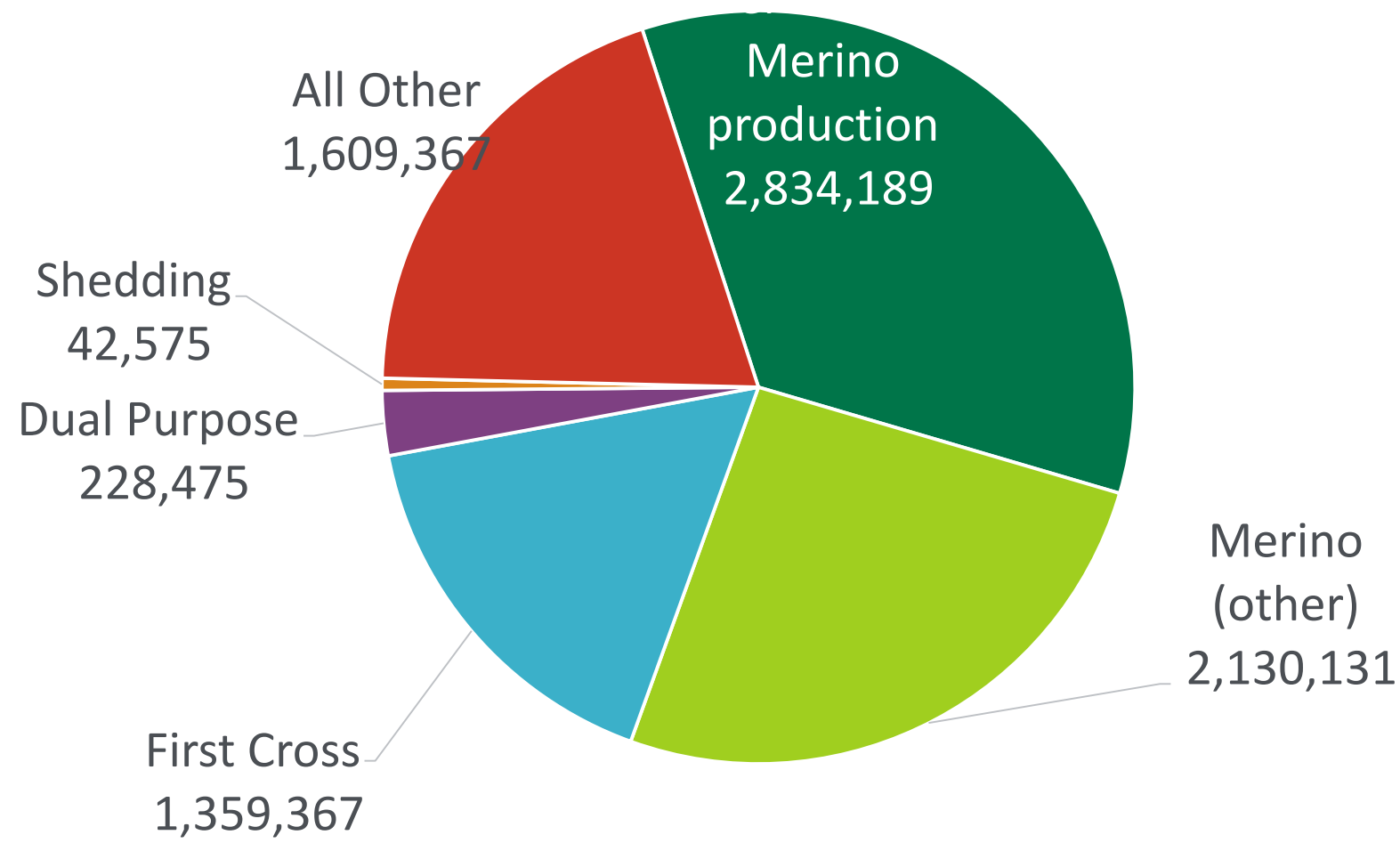


Totals

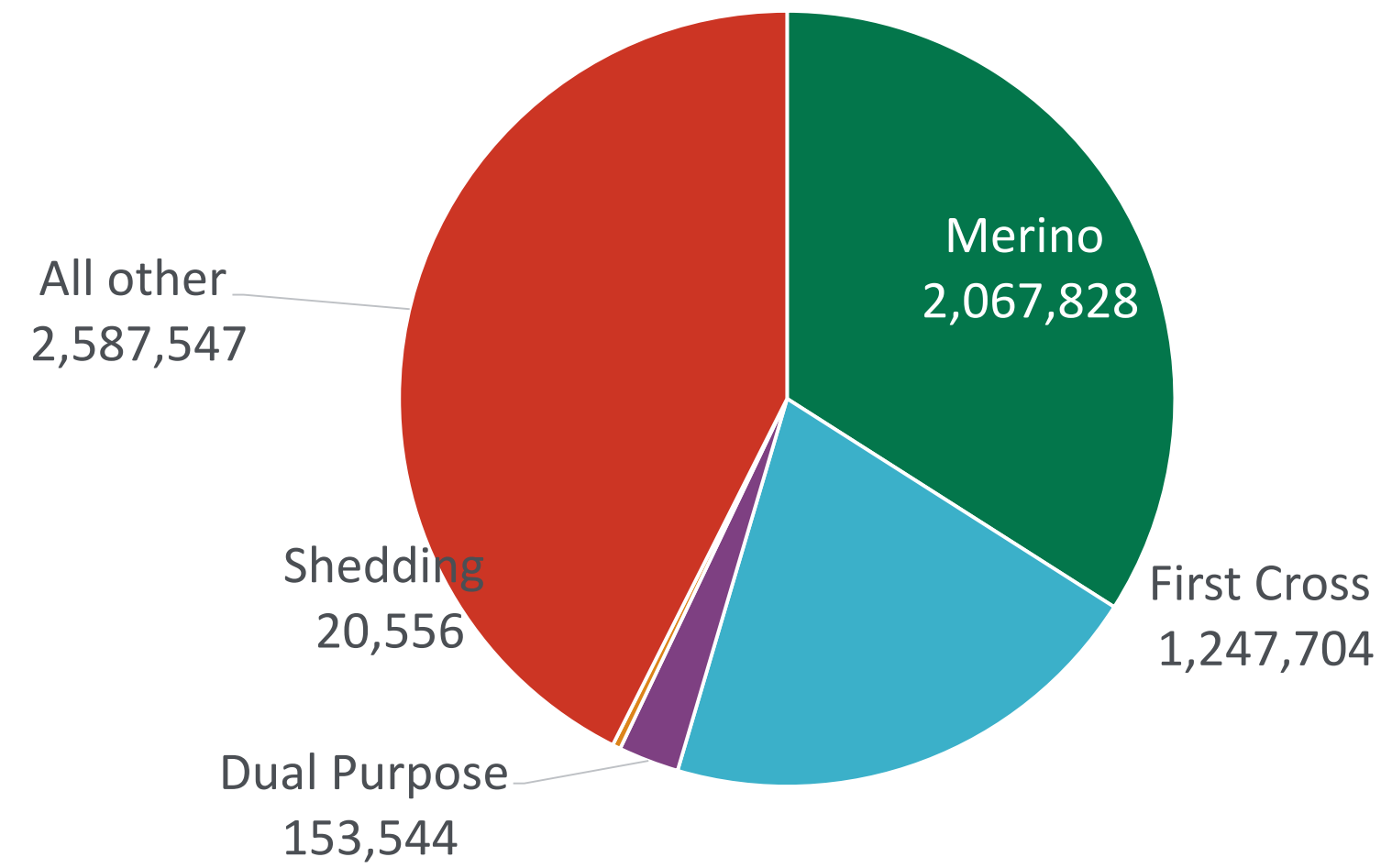
Breeding ewes on hand	2,563,100
Lambs on hand	2,011,189
Expected lamb sales in the next 4 months	671,846
Lambs marked in the past 4 months (1 Mar – 30 Jun)	1,621,465
Number of ewes joined to produce marked lambs	1,744,343

# Wimmera Mallee Murray

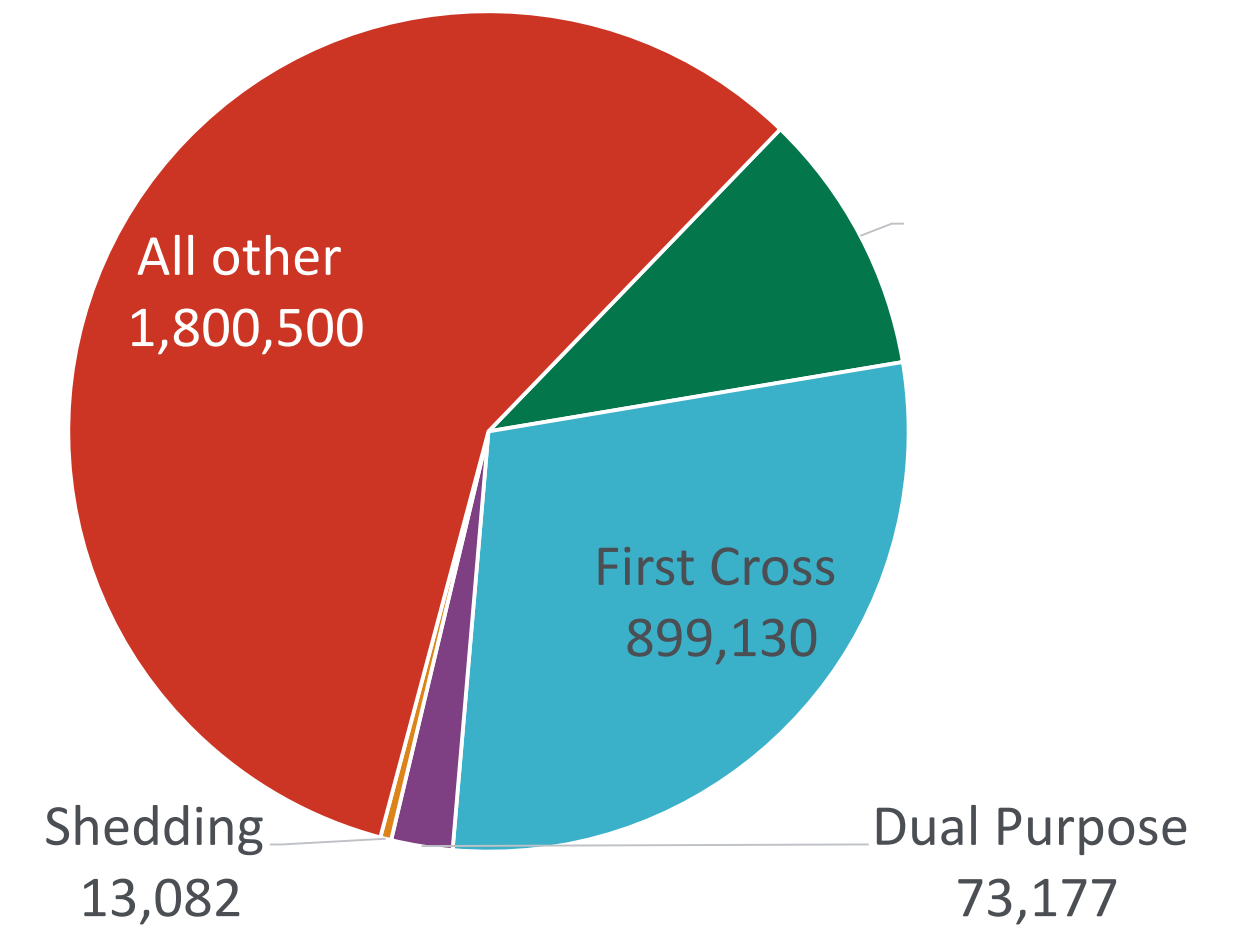
Breeding ewes on hand



Lambs on hand



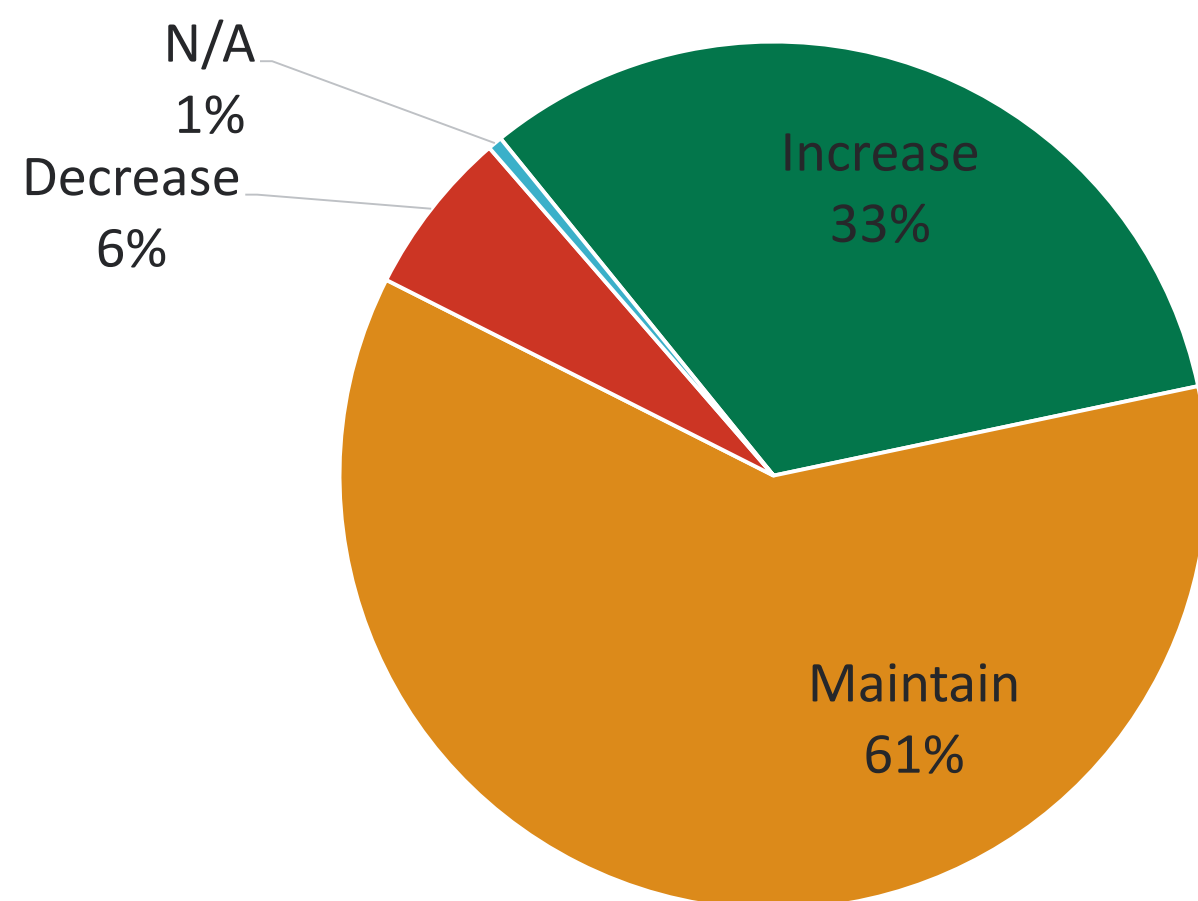
Lamb sales in next 4 months



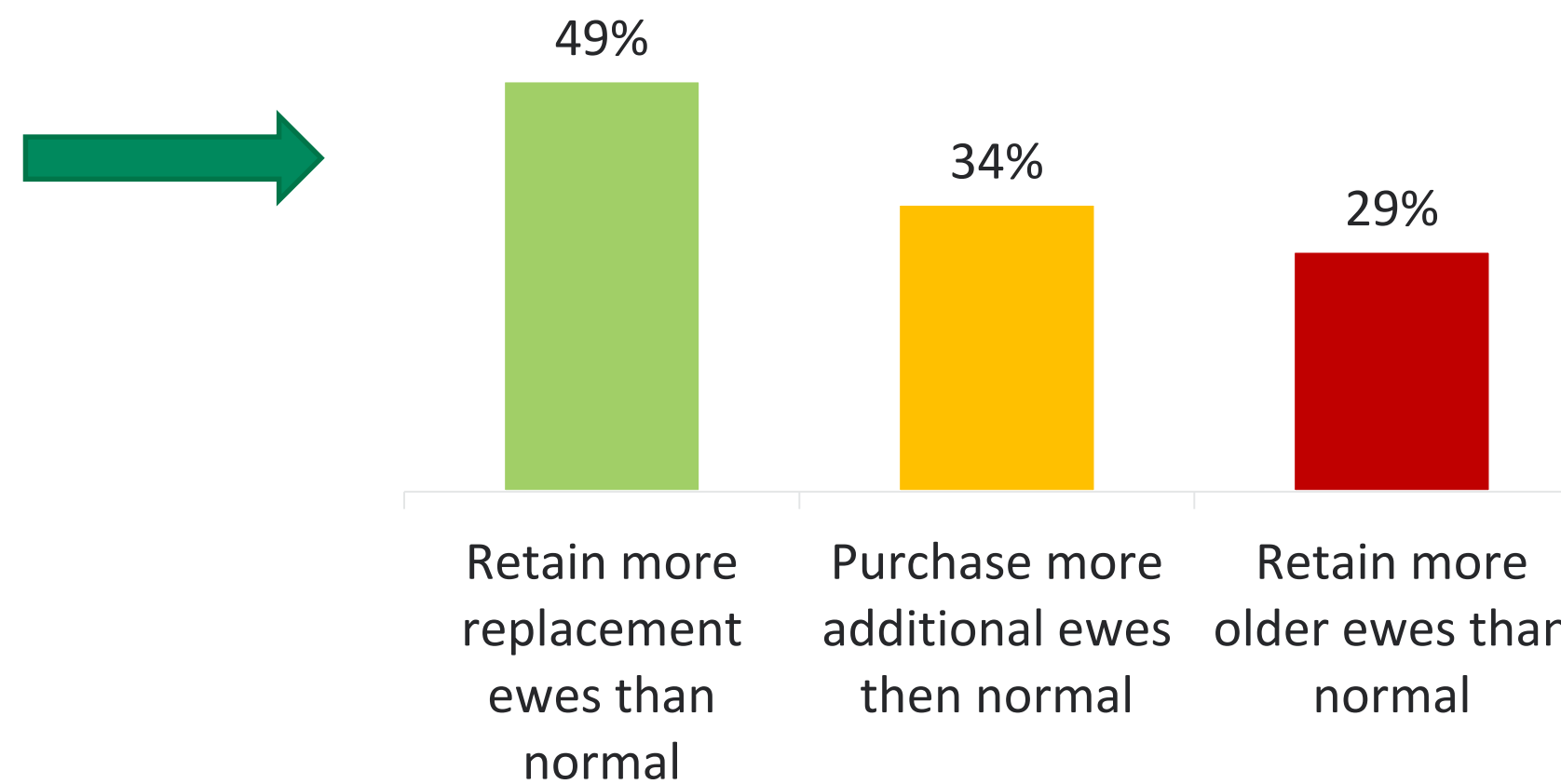
Totals

Breeding ewes on hand	8,204,104
Lambs on hand	6,077,179
Expected lamb sales in the next 4 months	3,100,123
Lambs marked in the past 4 months (1 Mar – 30 Jun)	5,354,269
Number of ewes joined to produce marked lambs	5,122,418

Flock intentions



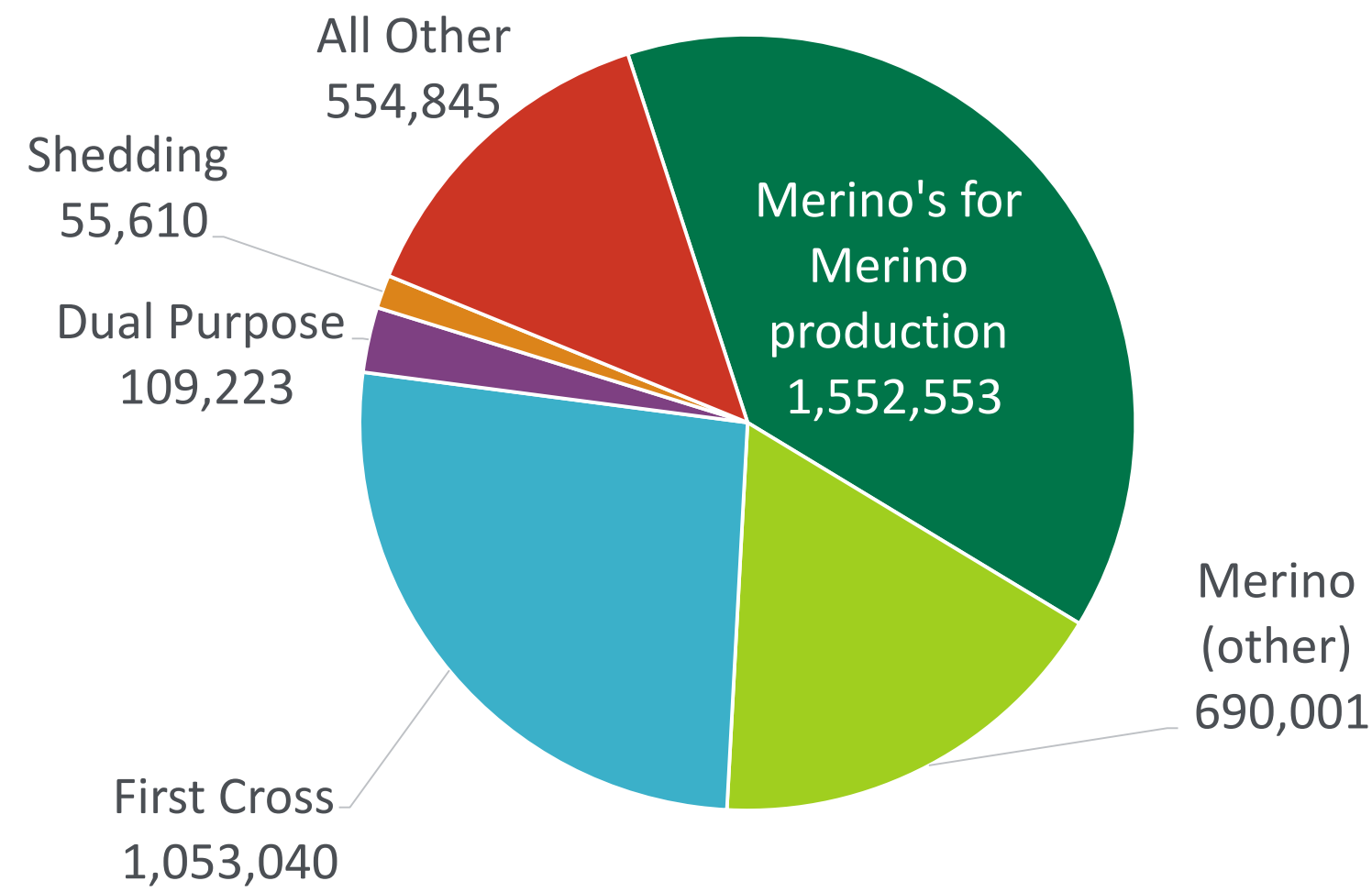
How to achieve increase



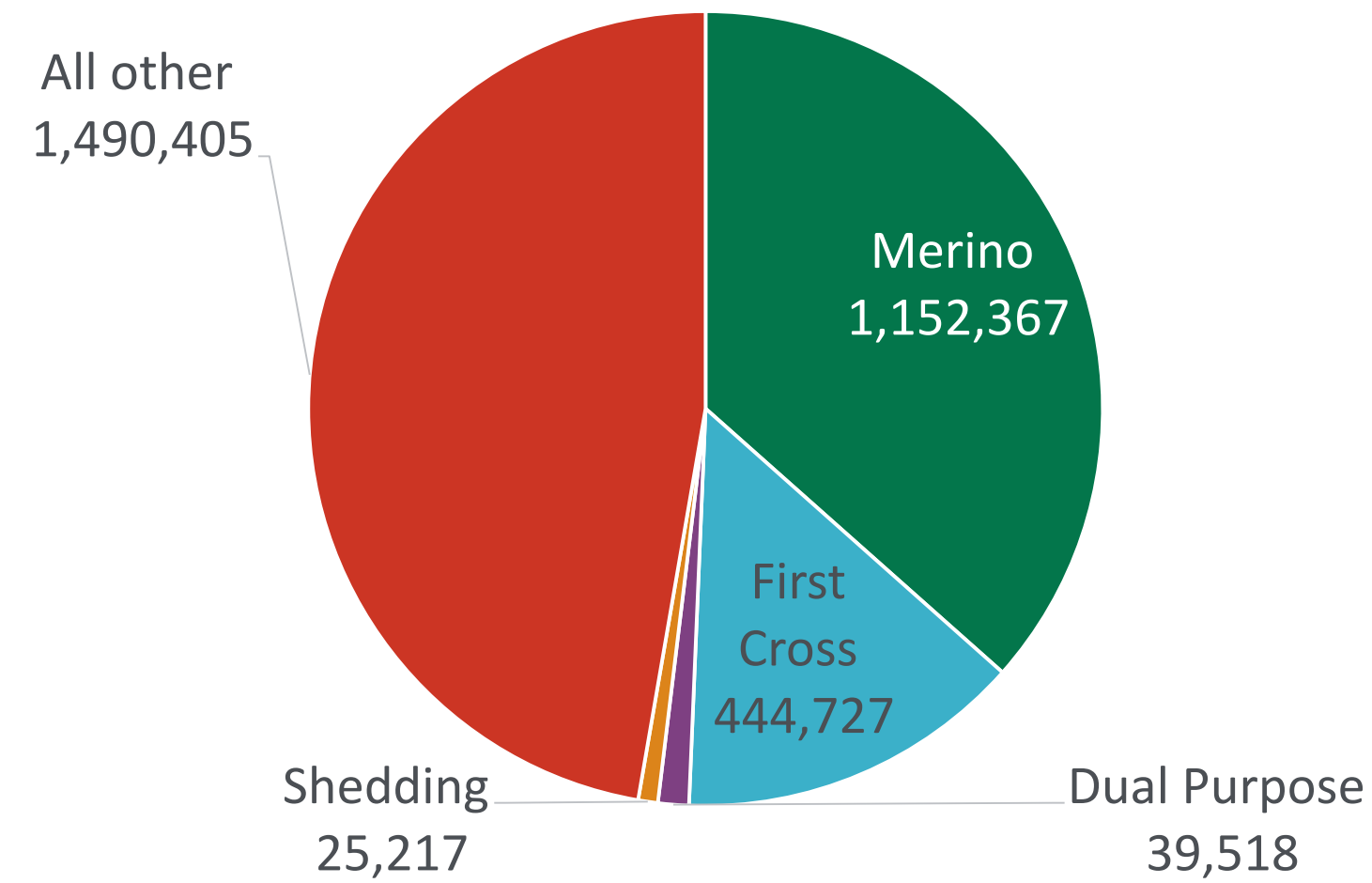


# East Victoria

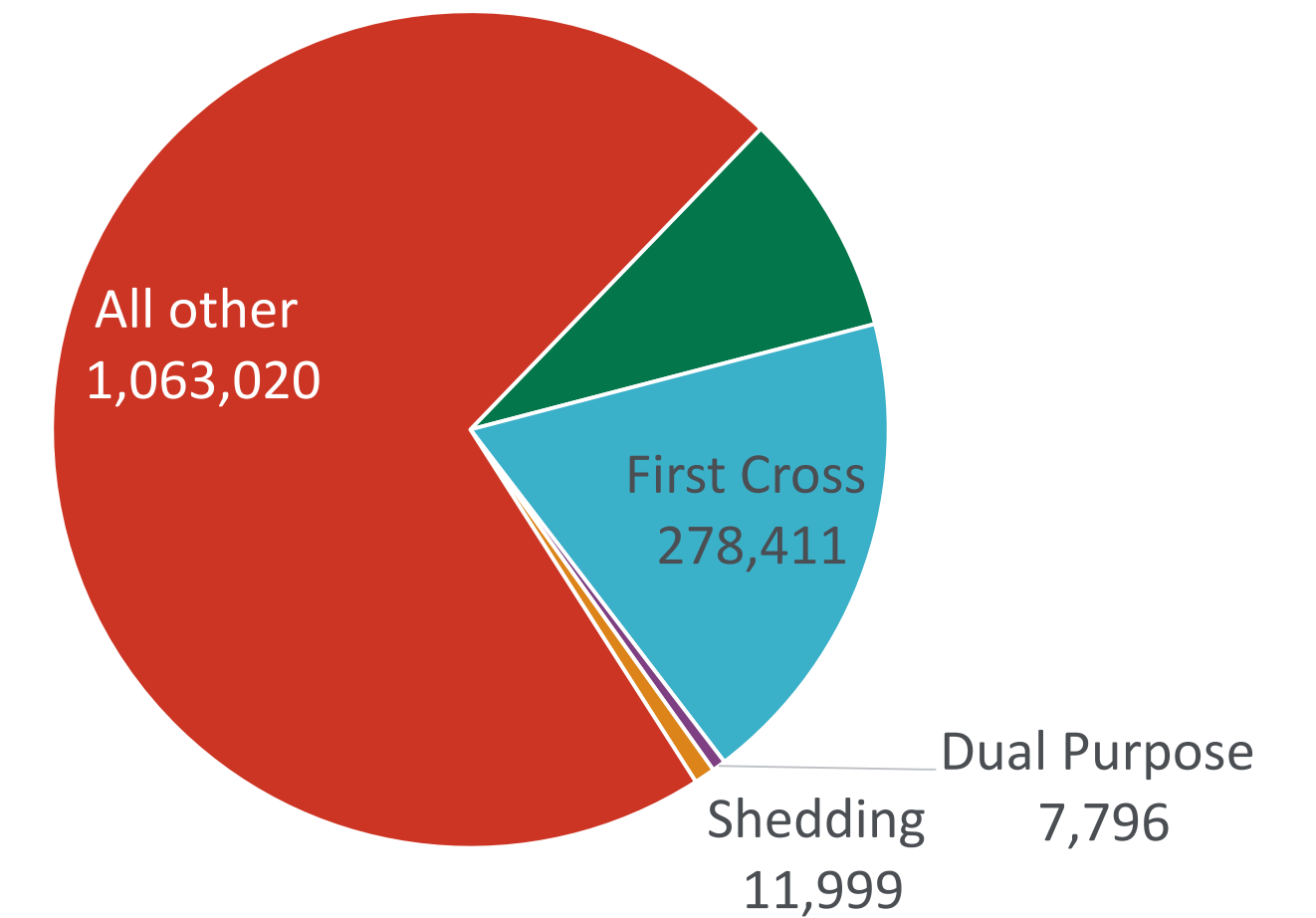
Breeding ewes on hand



Lambs on hand



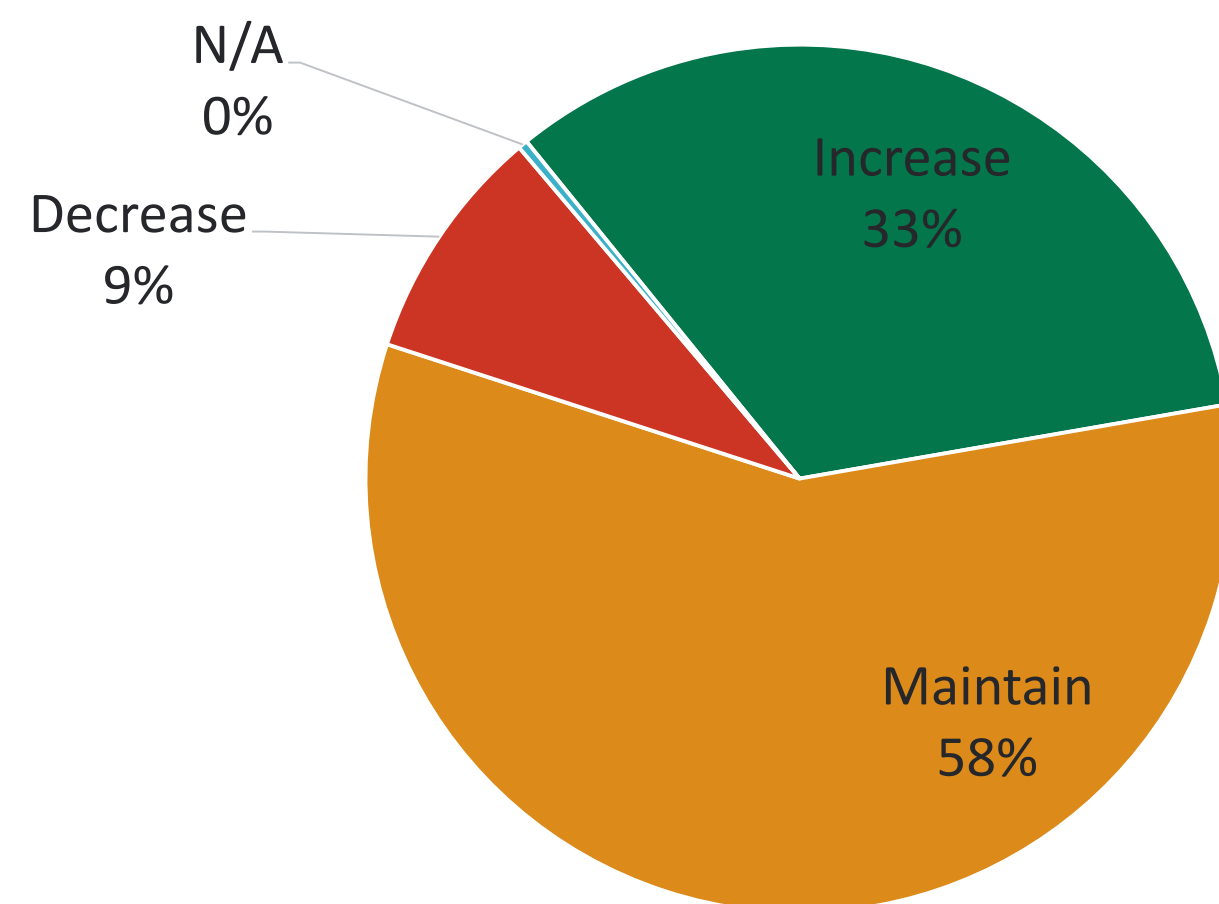
Lamb sales in next 4 months



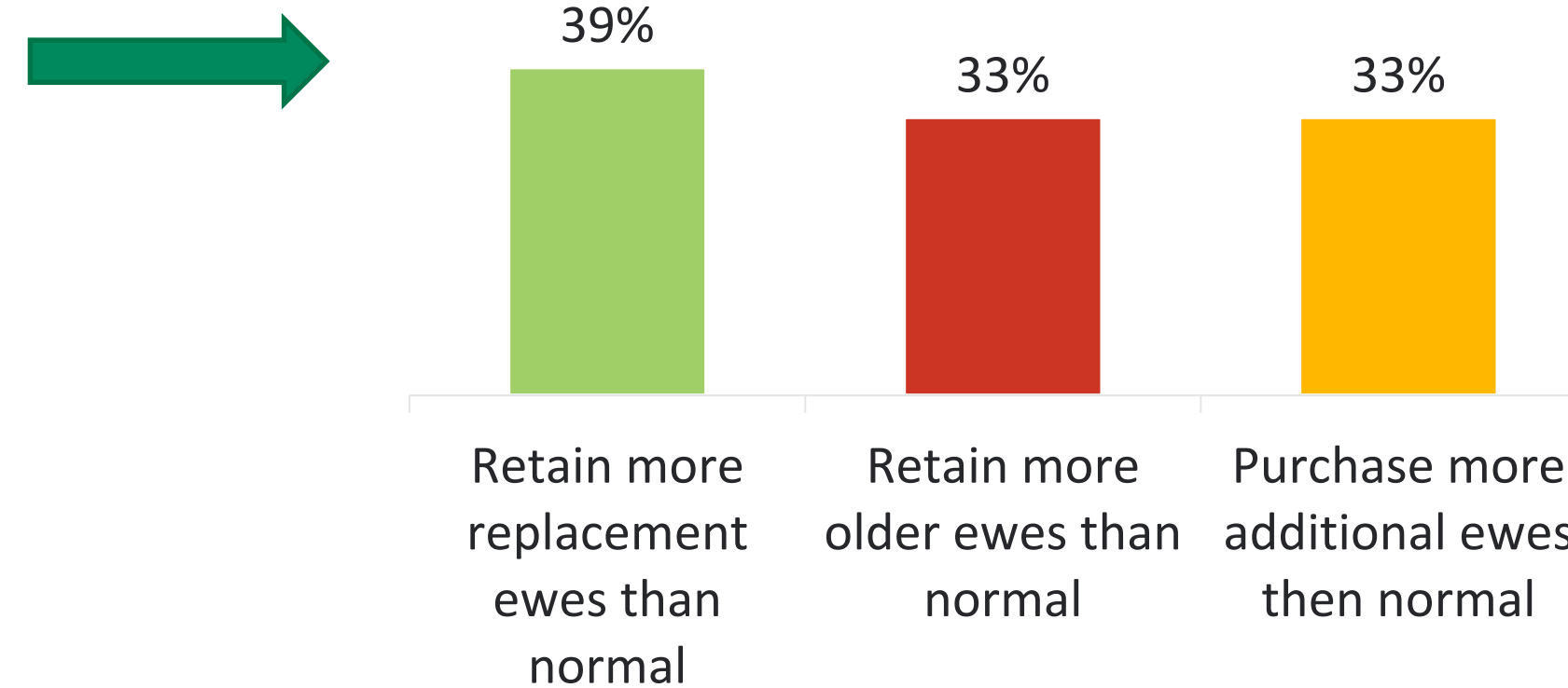
Totals

Breeding ewes on hand	4,015,272
Lambs on hand	3,152,235
Expected lamb sales in the next 4 months	1,491,199
Lambs marked in the past 4 months (1 Mar – 30 Jun)	2,573,183
Number of ewes joined to produce marked lambs	2,388,847

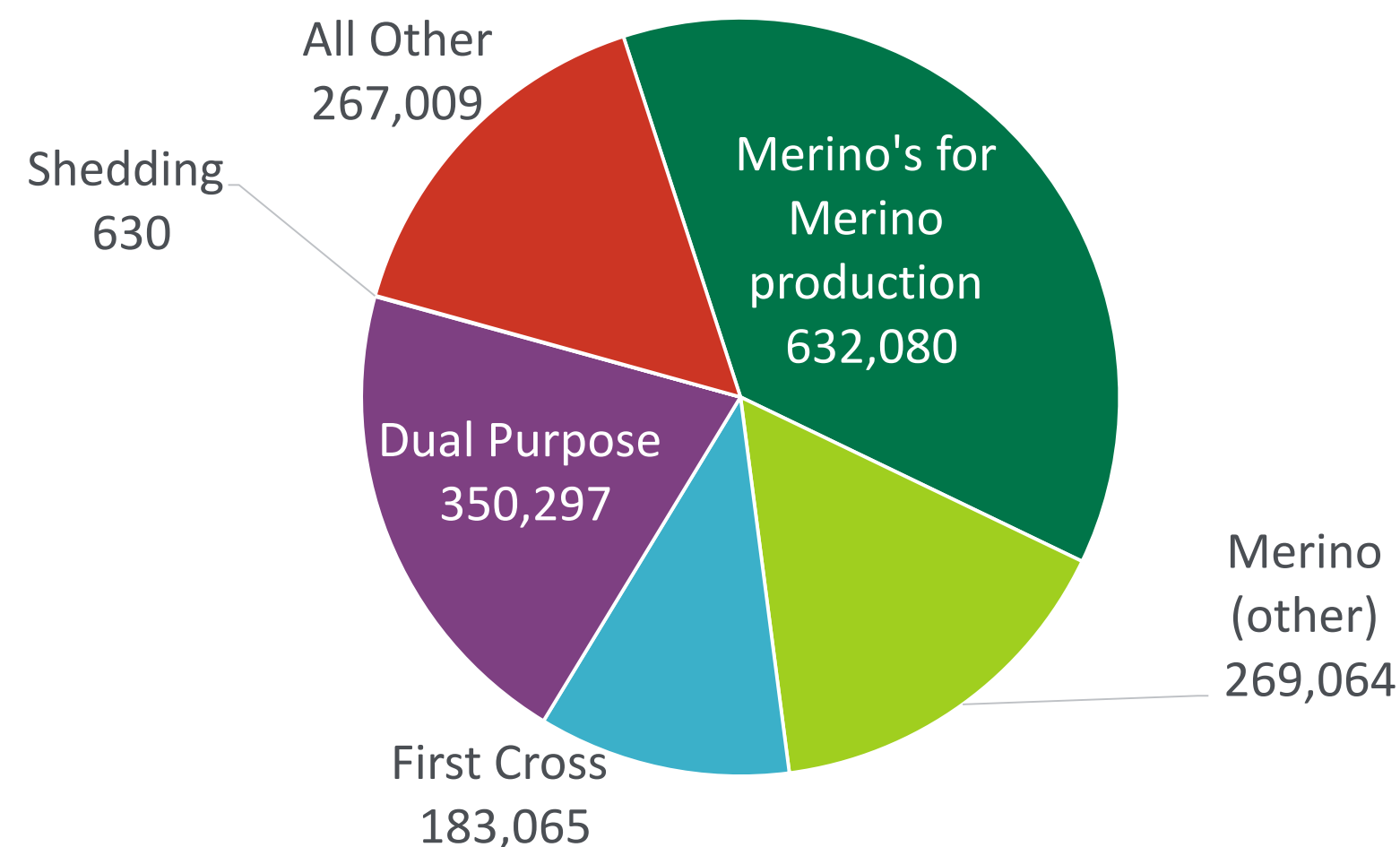
Flock intentions



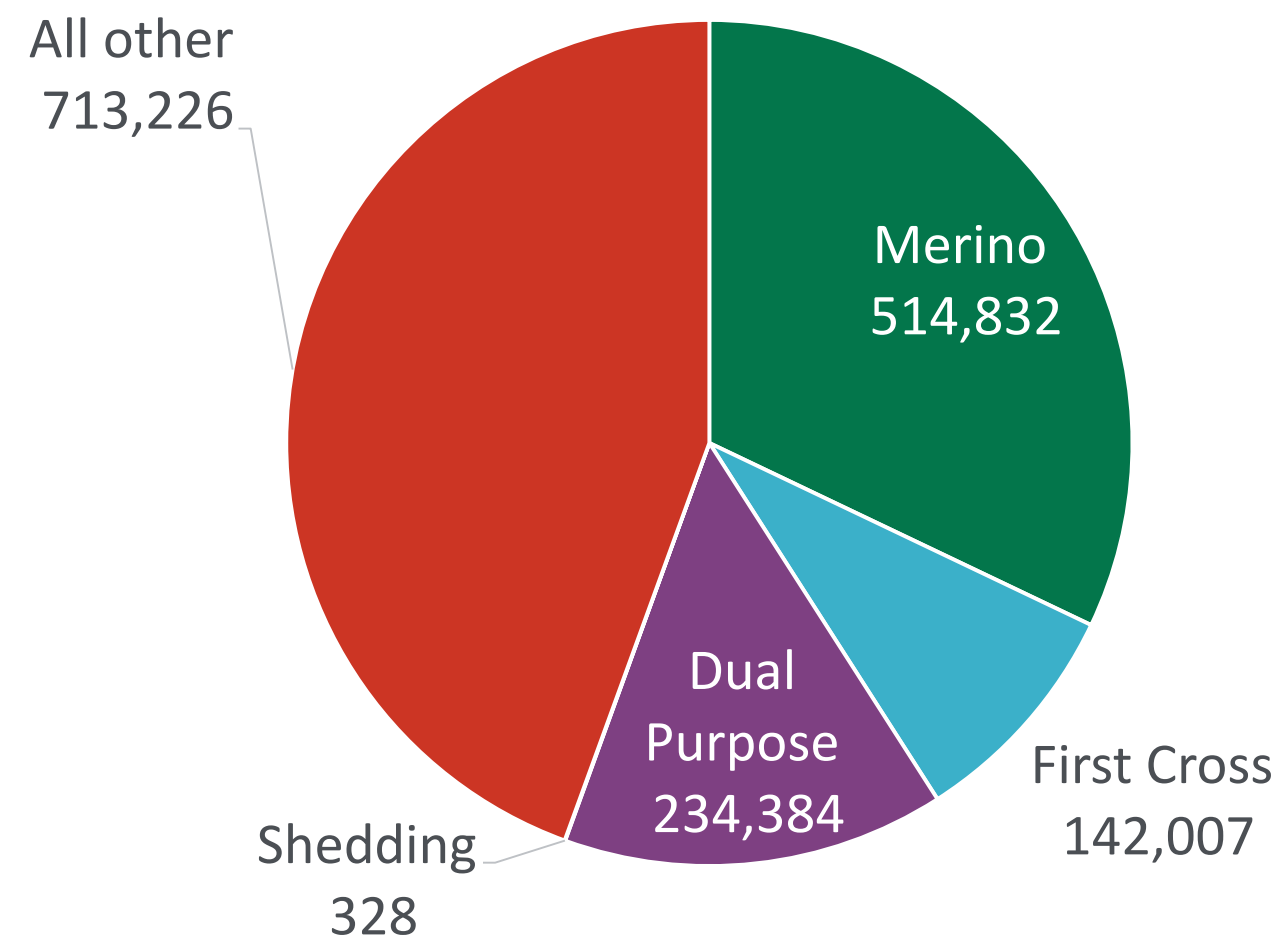
How to achieve increase



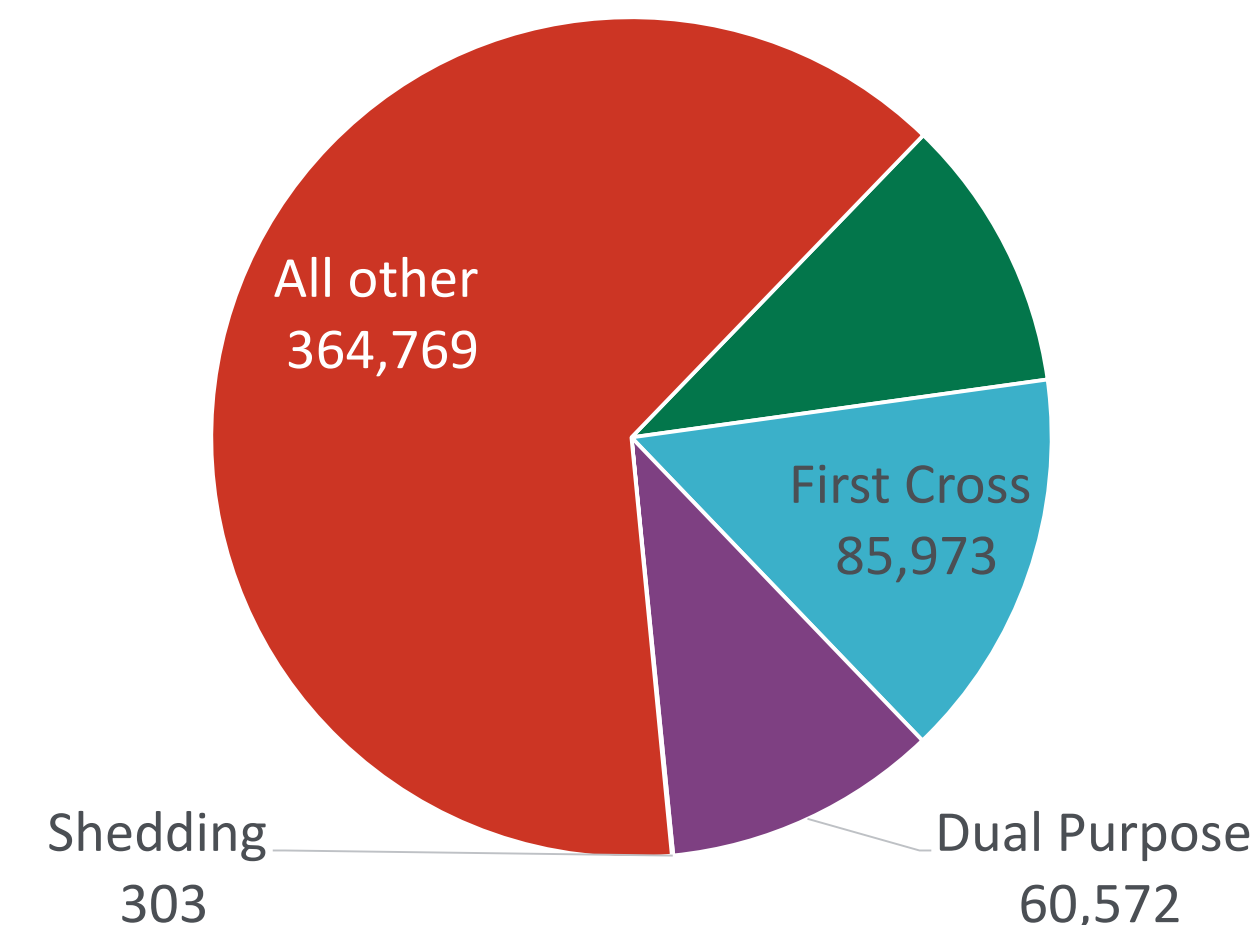
Breeding ewes on hand



Lambs on hand



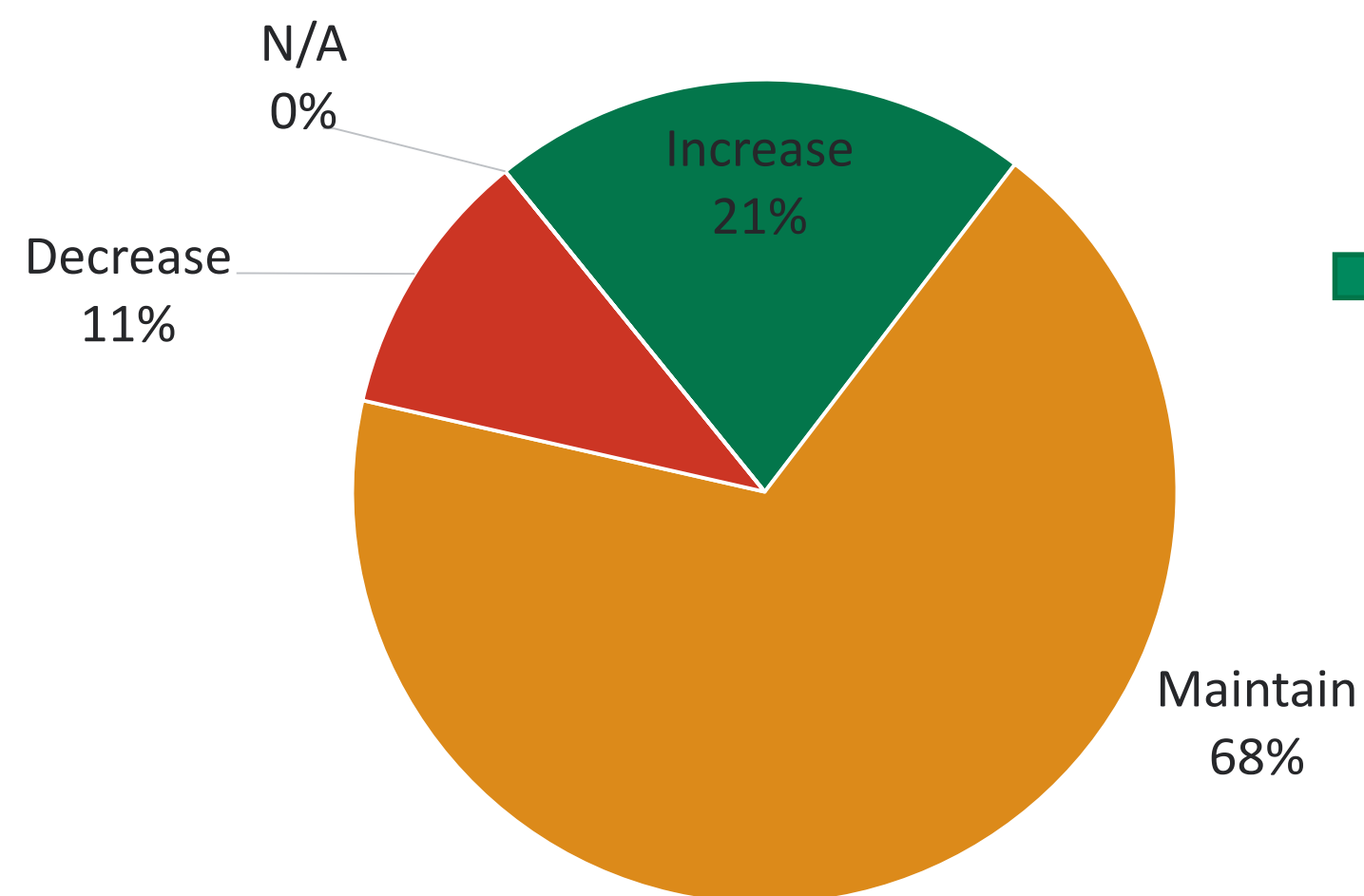
Lamb sales in next 4 months



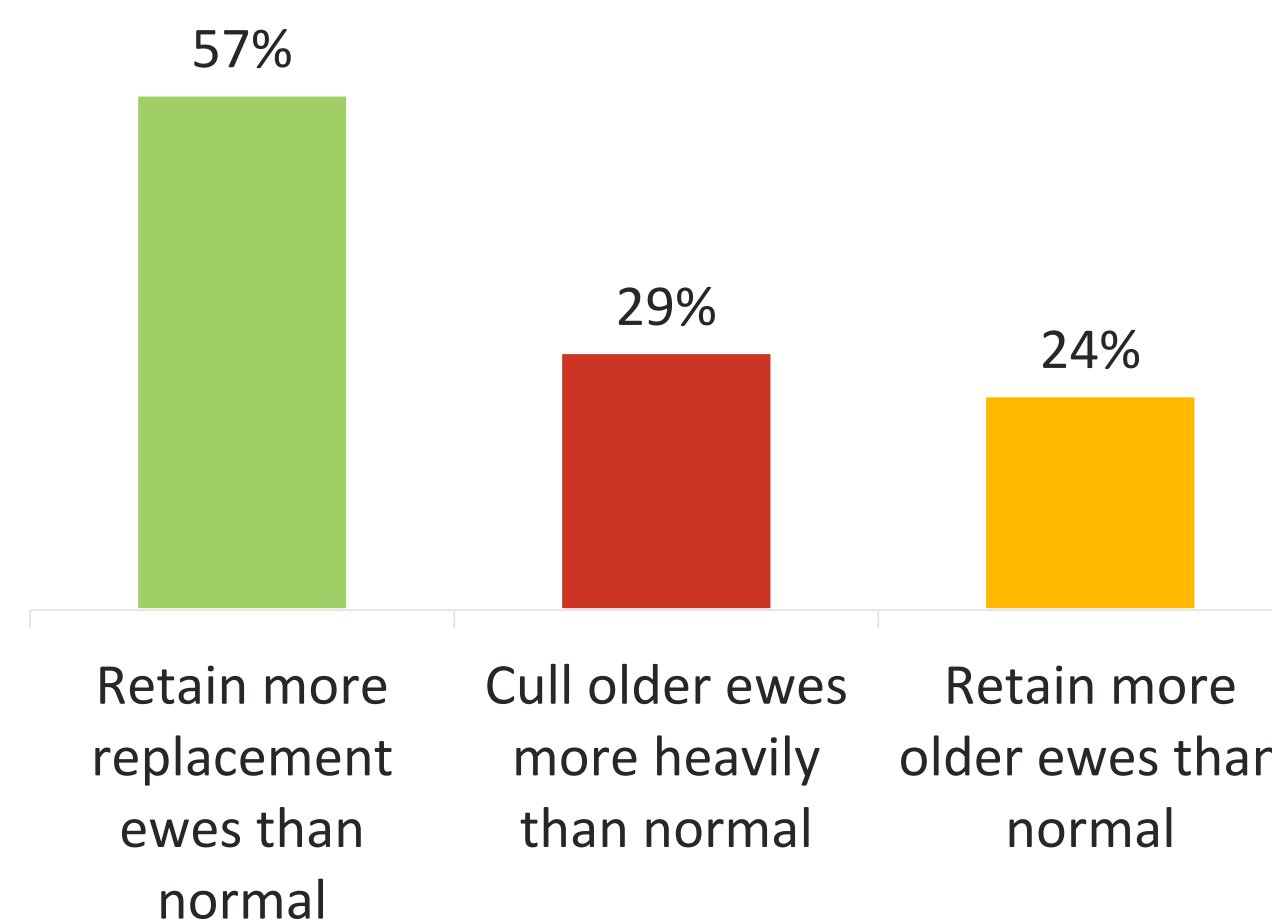
Totals

Breeding ewes on hand	1,702,146
Lambs on hand	1,604,777
Expected lamb sales in the next 4 months	572,126
Lambs marked in the past 4 months (1 Mar – 30 Jun)	1,500,184
Number of ewes joined to produce marked lambs	1,352,013

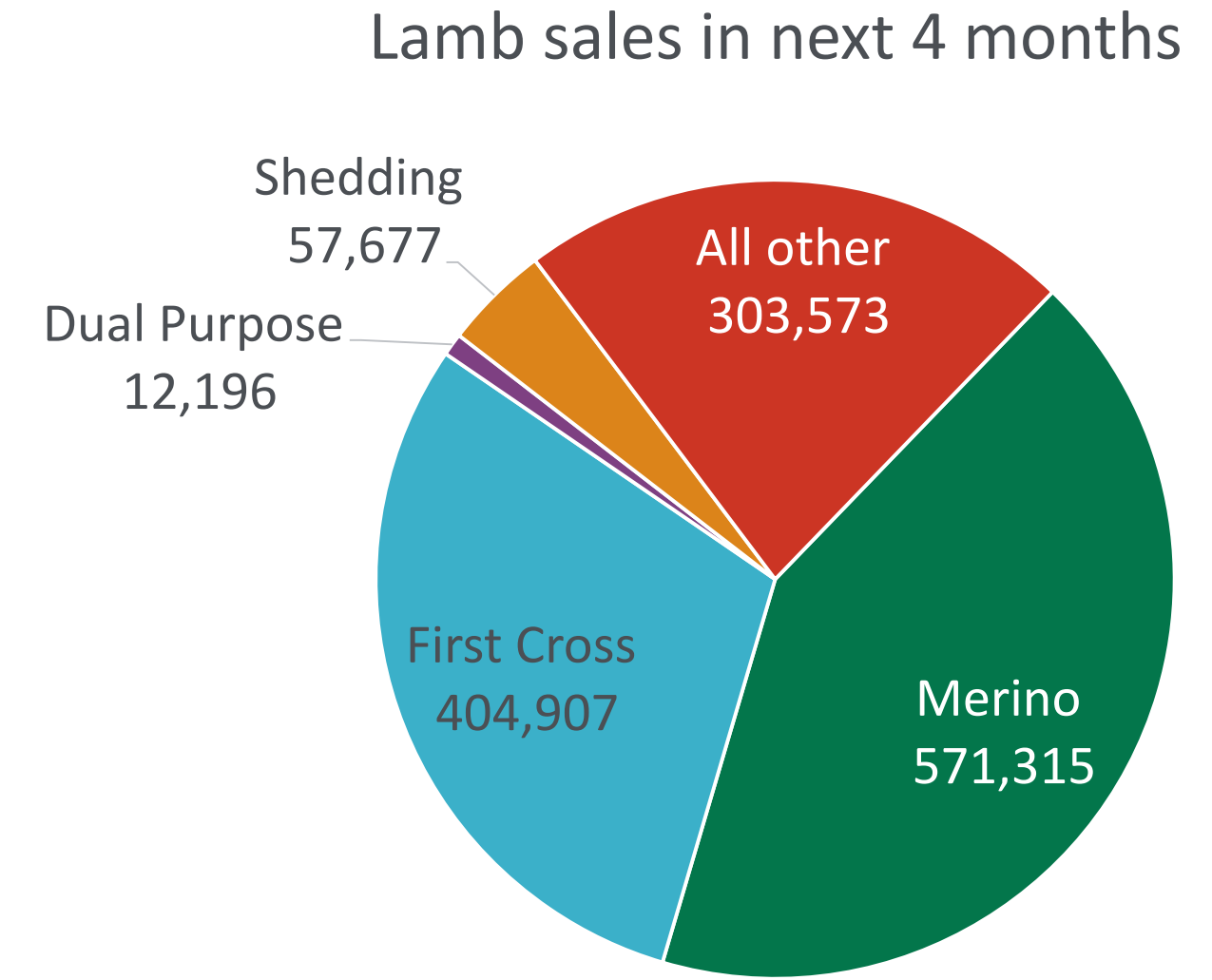
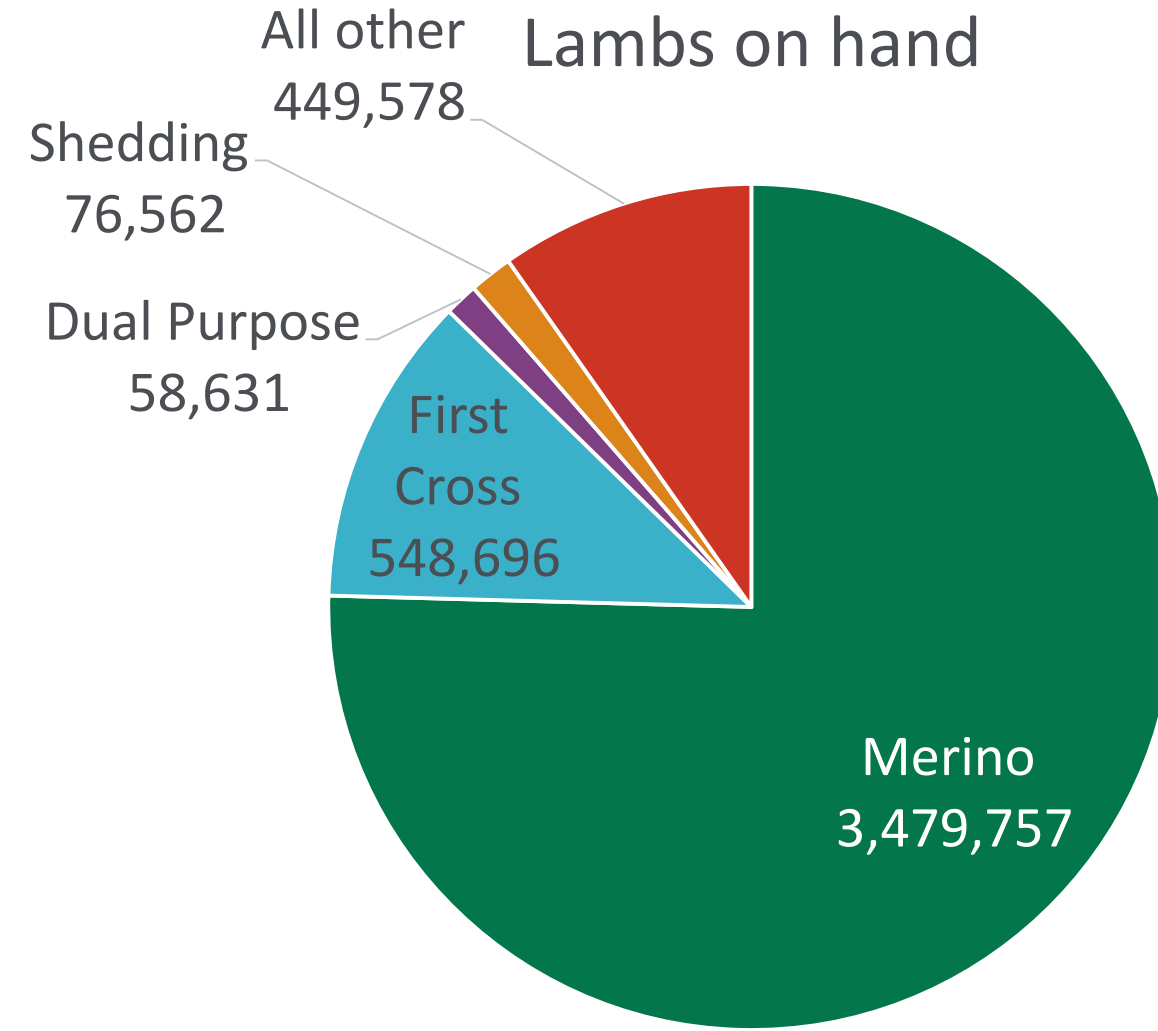
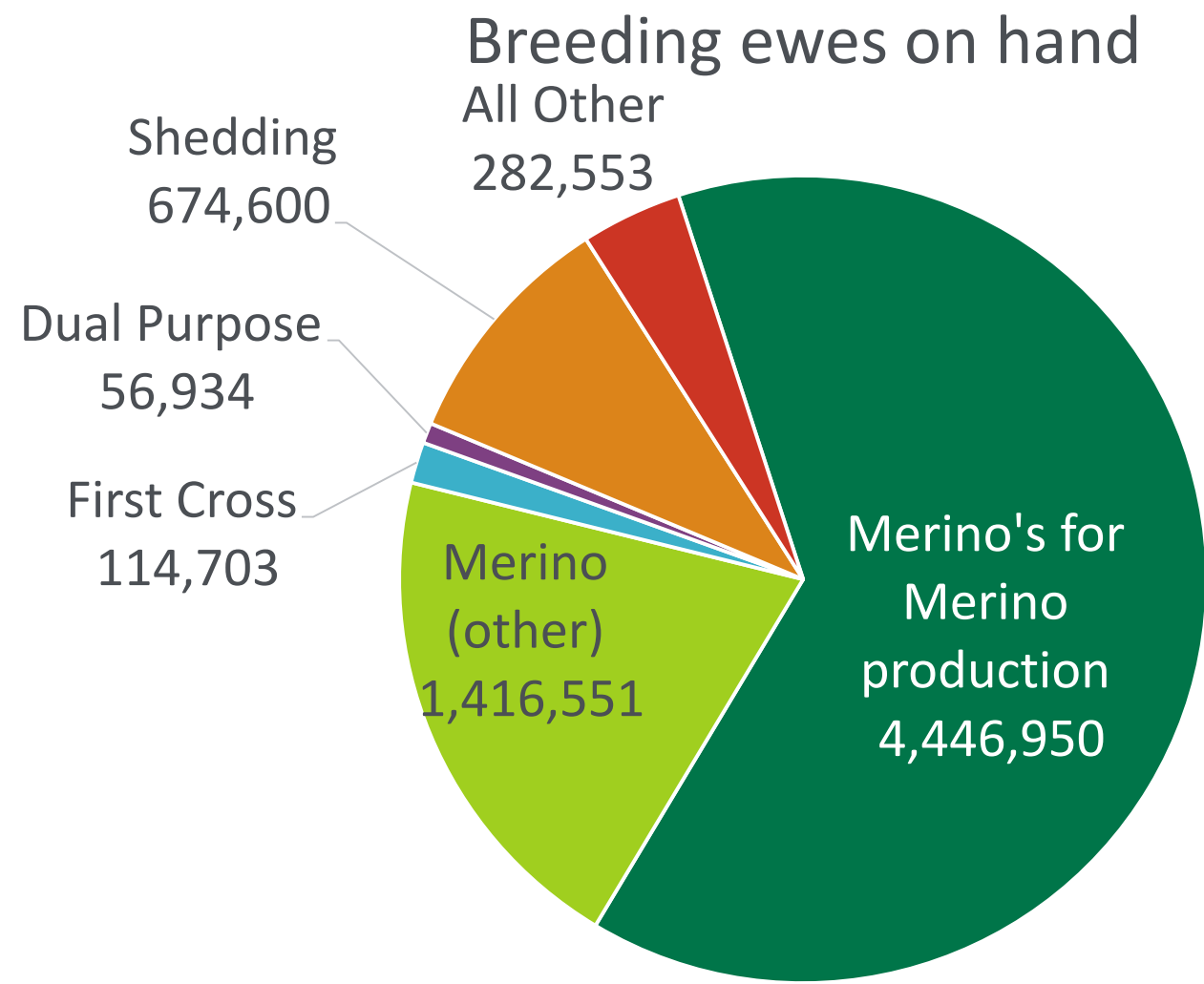
Flock intentions



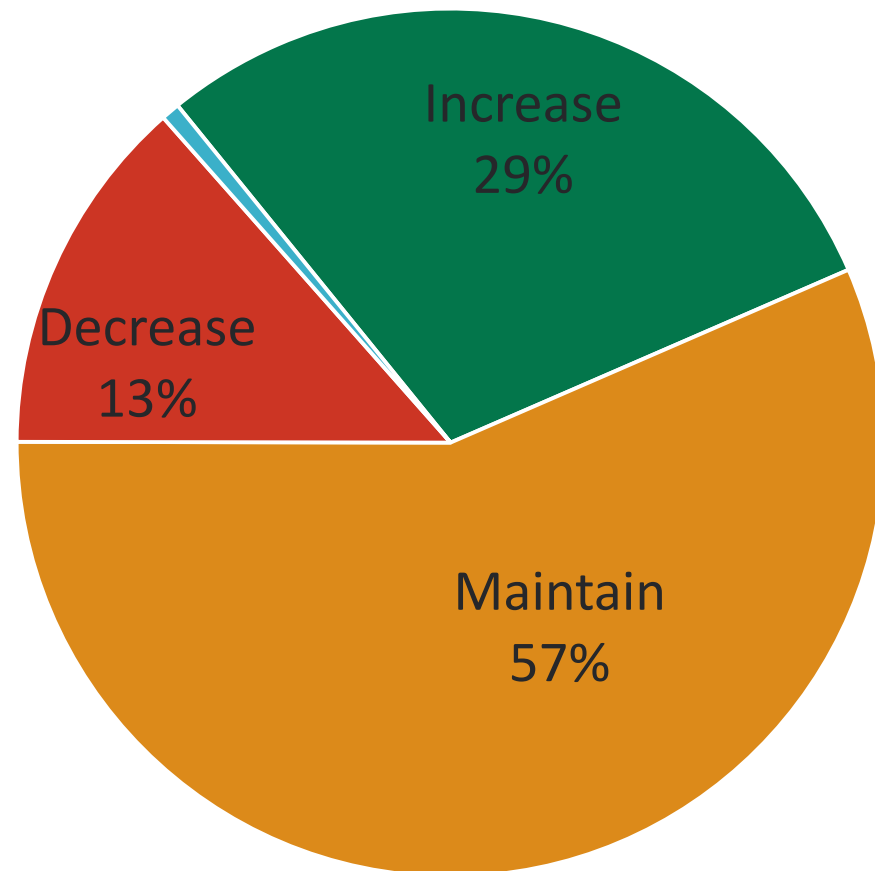
How to achieve increase



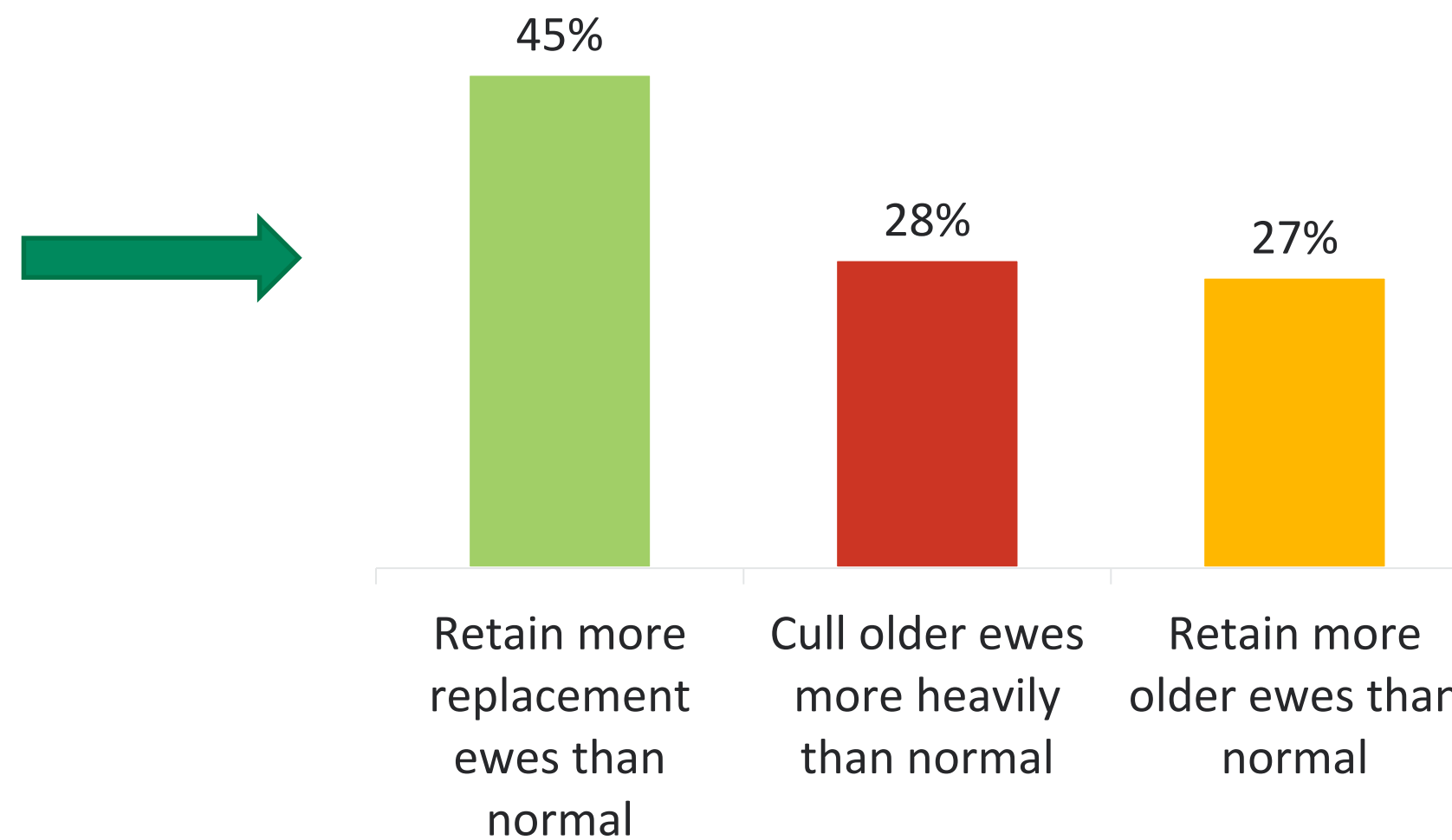
# Western Australia



Flock intentions



How to achieve increase



Totals

Breeding ewes on hand	6,992,291
Lambs on hand	4,613,225
Expected lamb sales in the next 4 months	1,349,667
Lambs marked in the past 4 months (1 Mar – 30 Jun)	4,025,361
Number of ewes joined to produce marked lambs	4,136,557



# Disclaimer

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