

MLA and AWI Wool and Sheepmeat Survey Report - Sheepmeat

March, 2020

Prepared by Kynetec

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Executive Summary – Lamb Production

Number of breeding ewes on hand

40,582,230 total breeding ewes on hand
 30,631,215 Merino breeding ewe flock, 75% of total breeding flock
 9,951,015 total Non-Merino breeding ewes on hand, 25% 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

35% increase
 57% maintain
 7% decrease

Intended method for achieving ewe flock increase

43% Retain more older ewes than normal
 55% Retain more replacement ewes than normal
 33% Purchase more additional ewes than normal

Number of lambs on hand

16,436,437 total lambs on hand
 10,635,095 total Pure bred Merino lambs, 65% of total lamb flock
 5,801,342 total Non-Merino lambs, 35% of total lamb flock

Expected lamb sales in the next four months (1 March 2020 – 30 June 2020)

7,098,012 total lamb sales in the next four months
 2,507,938 total Merino sales (35% of total lamb sales)
 2,018,262 total Pure meat sales (28% of total lamb sales)
 1,754,329 total First cross sales (25% of total lamb sales)
 817,483 total for All other breeds sales (12% of total lamb sales)

Number of lambs marked in the past four months (1 Nov 2019 – 29 Feb 2020)

2,512,882 total lambs marked in the past four months
 1,743,253 total Merino lambs marked (69% of total markings)
 769,629 total Non-Merino lambs marked (31% of total markings)

Number of ewes joined to produce those lambs

3,377,711 total number of ewes joined to produce those lambs
 2,474,499 total Merino lambs joined (73%)
 903,212 total non-Merino lambs joined (27%)

Marking rates

70% National Merino marking rate
 85% National non-Merino marking rate

Background and Purpose

Survey Background

The Wool and Sheepmeat survey has been running in various formats for the past 18 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, 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 Wool and Sheepmeat 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 continuing looking to add further value to the study by 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 February 2020 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 1,937 survey responses were achieved in February 2020, at a similar level from October 2019 at 1,958 surveys however down from 2,054 surveys achieved in February 2019. The severe bushfires in December 2019 and early 2020 and the subsequent exclusion of affected postcodes from the February 2020 would have impacted sample numbers. Given many large producers have multiple properties in different regions and states and their possible impact on weighting, we reported the results based on number of properties rather than respondents. As a result, 2,823 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 February. A total of 97 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 to 29 February 2019) and send reminder emails accordingly. A total of 12,387 emails were sent to MLA and AWI members via the email addresses provided by MLA and AWI databases. Of those 1,269 emails bounced, giving a total emails delivered of 11,118. 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 1,345 completed responses (69% 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 495 producers responded by this methodology (26% 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 and the online survey, a total of 24 very large producers were included in the survey (Ewe flock size >20,000 head).

Methodology [2/3]

Weighting

Breeding ewe and lamb estimates were developed by weighting the number of respondents by both state and flock size to the number of farm businesses with breeding ewes. Wether estimates were developed by weighting the number of respondents by state to the number of total farm businesses with sheep and lambs.

As with all Wool and Sheepmeat surveys since February 2018, the ABS population of producers used for weighting the survey data is regularly adjusted to account for the significant number of smaller producers (flock sizes of less than 250 head) that were excluded from the ABS census and surveys due to the \$40,000 EVAO cutoff. A comparison of the adjusted producer populations used for breeding ewe and lamb estimates for the last five Wool and Sheepmeat surveys is below.

The producer populations will be updated again for the June 2020 survey based on the latest release of 2018/2019 ABS data expected to be available in May 2020.

State	Breeding Ewe Producers used for Feb, June & Oct 2018	Breeding Ewe Producers used for Feb, June & Oct 2019	Breeding Ewe Producers used for Feb 2020
Australia	35,947	37,238	37,668
New South Wales/ACT	13,725	14,075	14,088
Victoria	9,173	9,473	10,010
Queensland	1,410	1,497	1,523
South Australia	5,414	5,827	6,073
Western Australia	4,906	5,000	4,710
Tasmania	1,318	1,387	1,264

Methodology [3/3]

Statistical significance

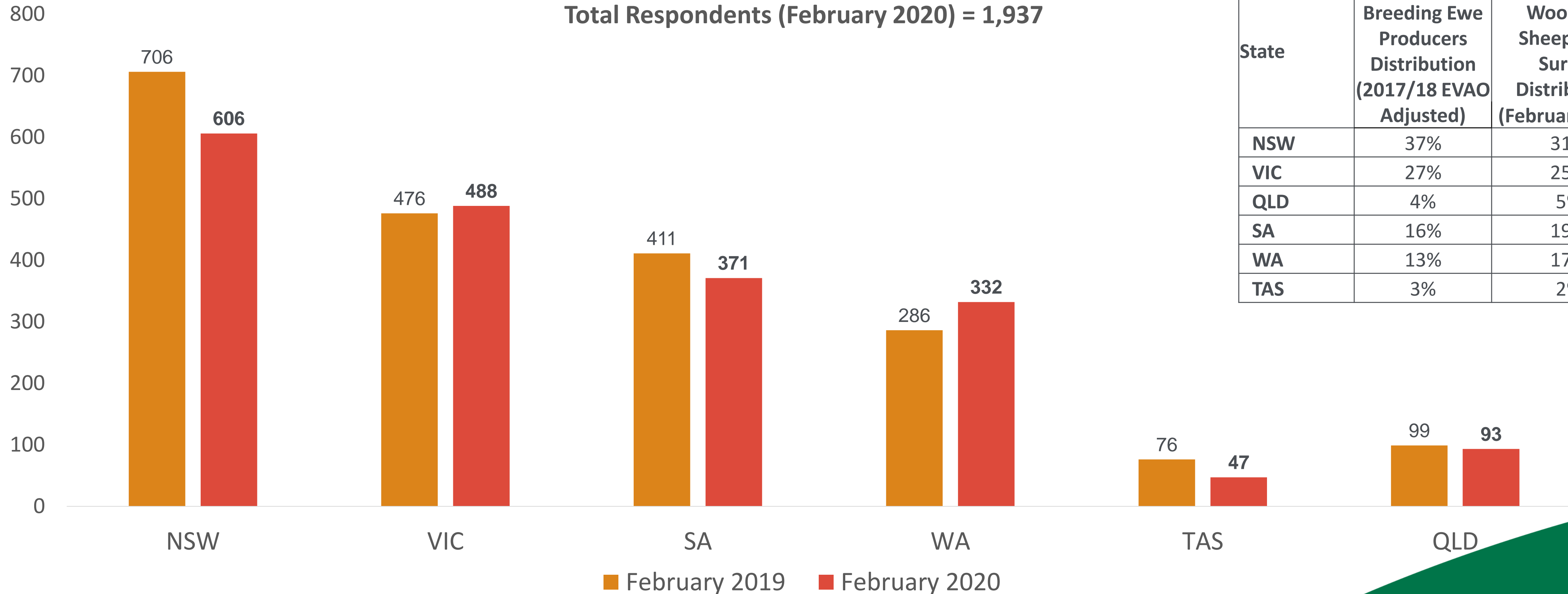
The total research sample of 1,937 will give the results of this study a margin of error of $\pm 2.16\%$ at a 95% confidence level based on 37,640 breeding ewe producers in Australia (ABS 2017-18 Survey adjusted for \$40,000 EVOA cutoff). This is basically saying that if you conducted the same survey 100 times, 95 out of the 100 sheep producers should yield results within $\pm 2.16\%$ 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 $\pm 3.88\%$
- Victoria $\pm 4.30\%$
- Queensland $\pm 9.77\%$
- South Australia $\pm 4.92\%$
- Western Australia $\pm 5.17\%$
- Tasmania $\pm 13.93\%$

Survey Respondents [1/4]: By State

The total number of respondents (n=1,937) represented national industry distribution of breeding sheep producers producers (29,761 as reported in the ABS Survey 2017-18 with an adjustment to 37,668 for the new EVAO cutoff of \$40,000), with the proportion of respondents in each state being similar to that of the ABS Survey 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.

Note that due to catastrophic bushfires in many states in December 2019 and early 2020, producers in bushfire impacted postcodes were not emailed or posted the February 2020 survey to avoid any further respondent burden at that difficult time. AMSRS provided a list of bushfire impacted postcodes so those areas could be avoided when conducting the survey – refer to the following link: <https://www.ato.gov.au/Individuals/Dealing-with-disasters/In-detail/Specific-disasters/Bushfires-2019-20/?anchor=Postcodesidentifiedfordeferral#Postcodesidentifiedfordeferral>). This is likely to have reduced the samples in some states, particularly NSW.



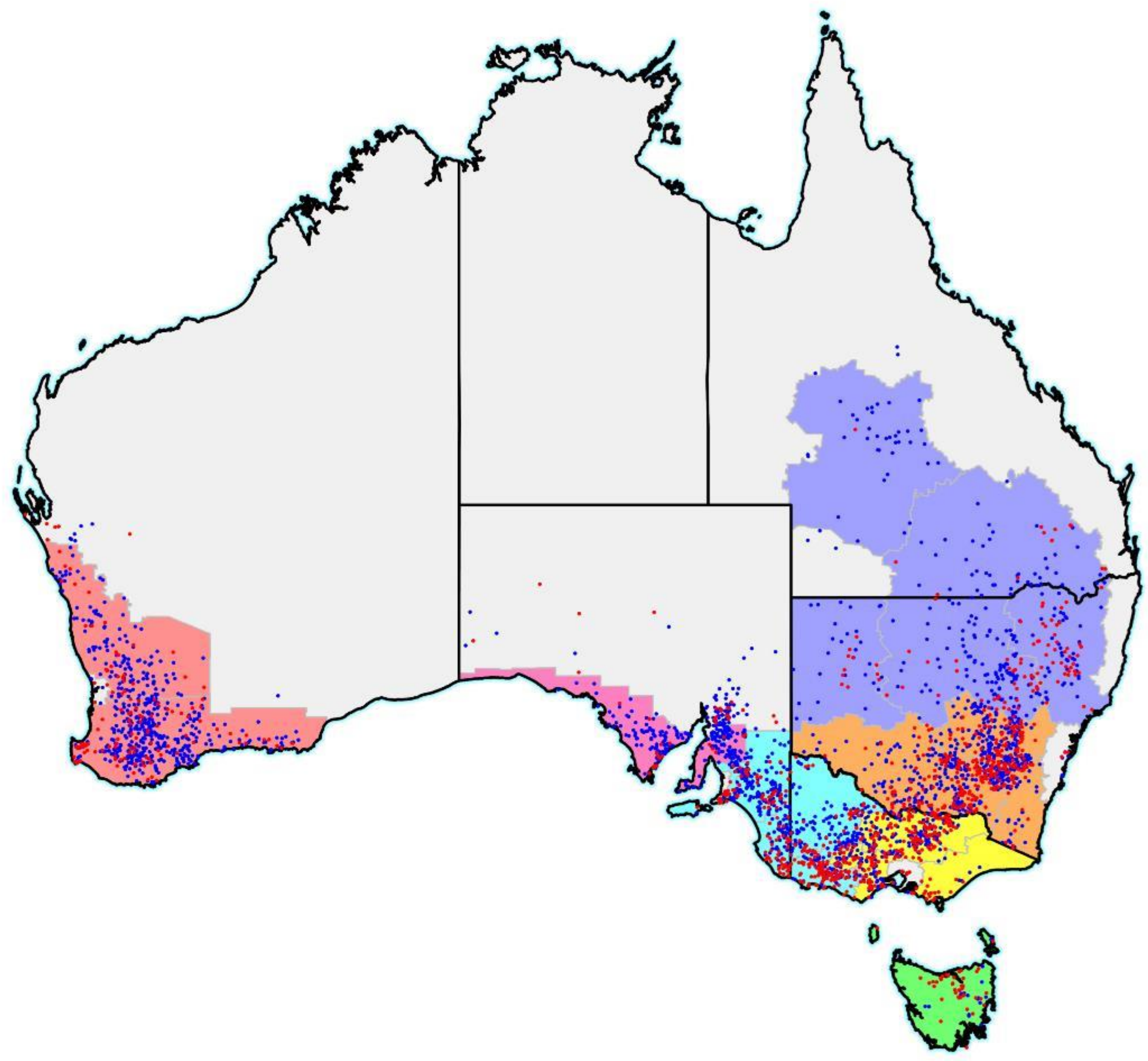
State	ABS Census for Breeding Ewe Producers Distribution (2017/18 EVAO Adjusted)	MLA and AWI Wool and Sheepmeat Survey Distribution (February 2020)
NSW	37%	31%
VIC	27%	25%
QLD	4%	5%
SA	16%	19%
WA	13%	17%
TAS	3%	2%

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

Merino and non 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 by Postcode**
1 Dot = 1
- Non merino flock count by Postcode**
1 Dot = 1



Total flocks: n = 2,823
Merino: n = 2,194
All other: n = 1,090

Survey Respondents [3/4]: Merino Flock Counts

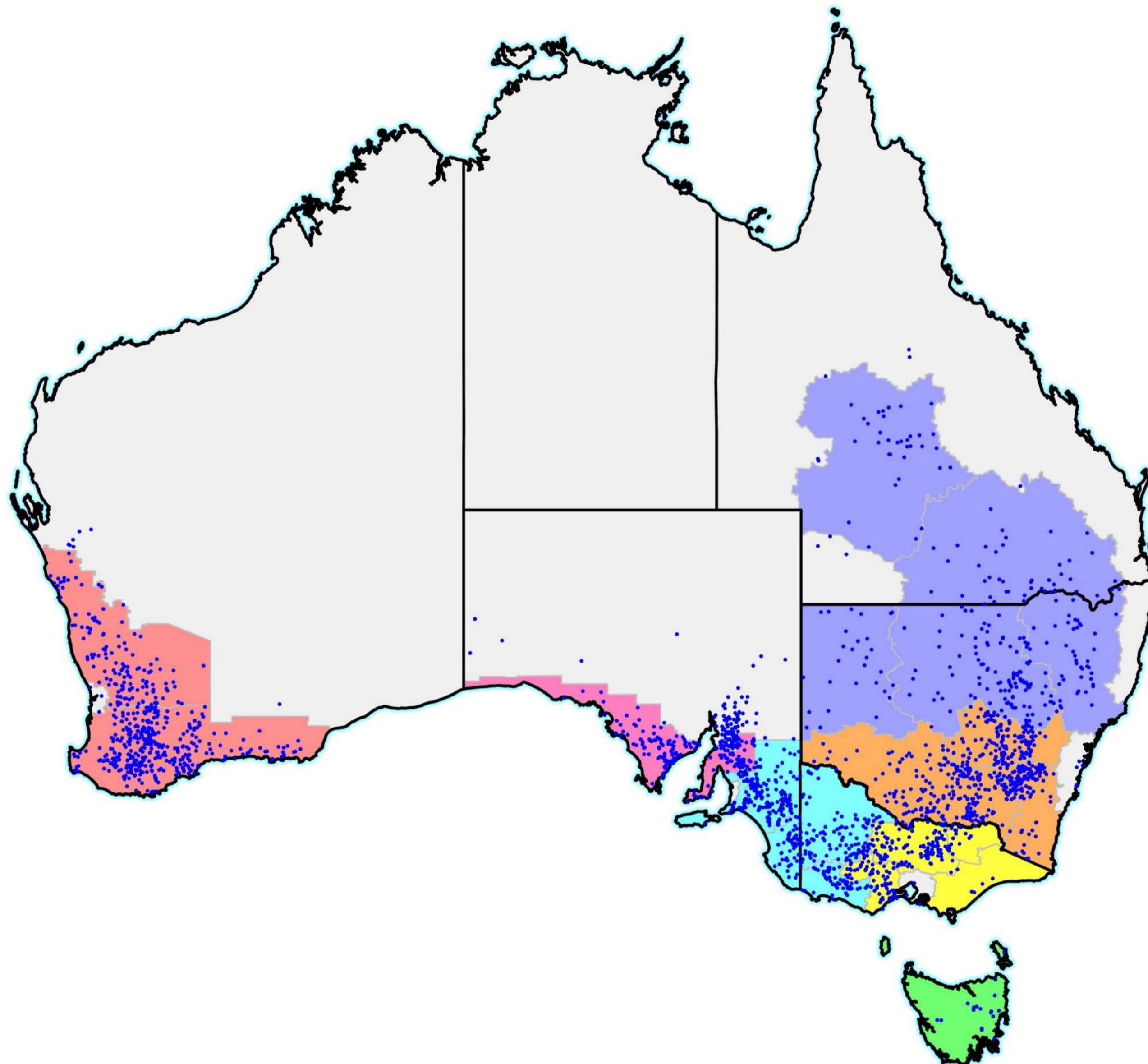
Merino
flock count
by Postcode

MLA Reporting Regions

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

Merino flock count

1 Dot = 1



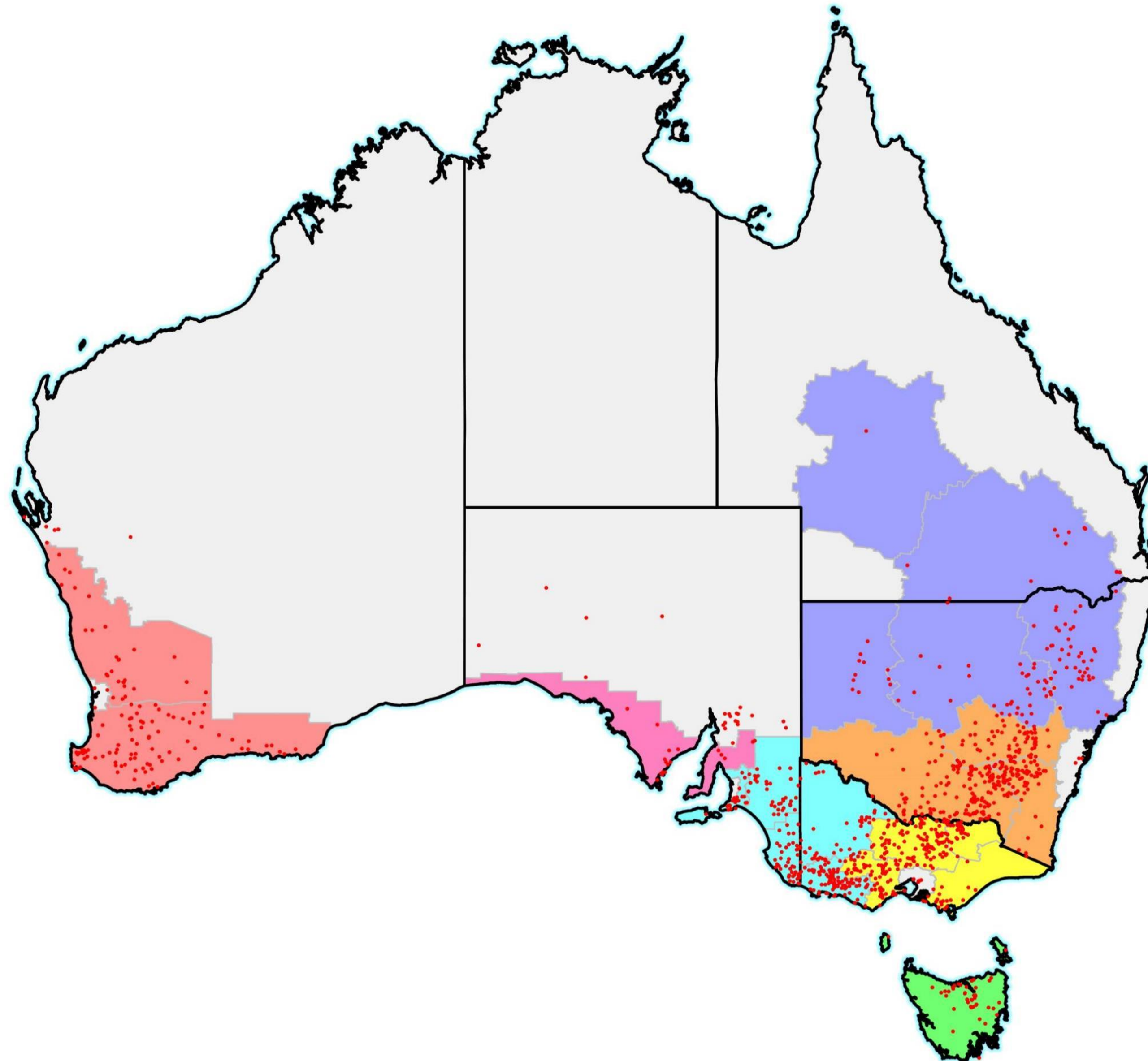
Merino properties: n = 2,194

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

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

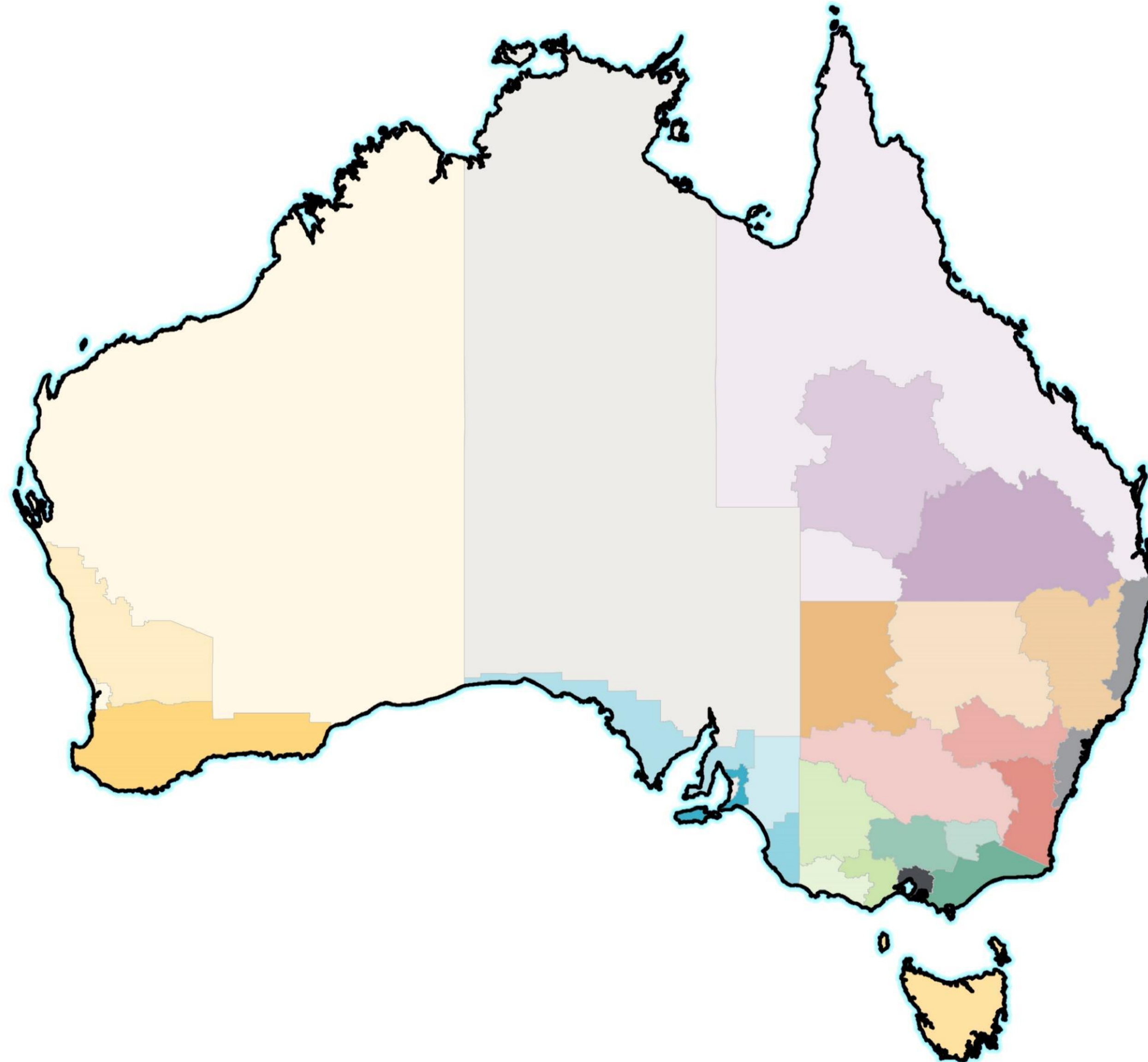


All other properties: n = 1,090

MLA Sheep Producing Regions

MLA Regions

- MLA Regions**
- Barwon & Central Highlands
 - Central Midlands
 - Central Midlands Extra
 - Central Qld
 - Central Qld Extra
 - Central West
 - Eyre Yorke and North
 - Eyre Yorke and North Extra
 - Gippsland
 - Hunter and Northern
 - Hunter and Northern Extra
 - Loddon and Goulburn
 - Murray and Murrumbidgee
 - Murray Lands
 - North Western
 - Outer Adelaide
 - Ovens Murray
 - South East
 - South Eastern
 - South Eastern Extra
 - Southern Qld
 - Tasmania
 - WA South
 - Western District
 - Western Division
 - Wimmera and Mallee



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.

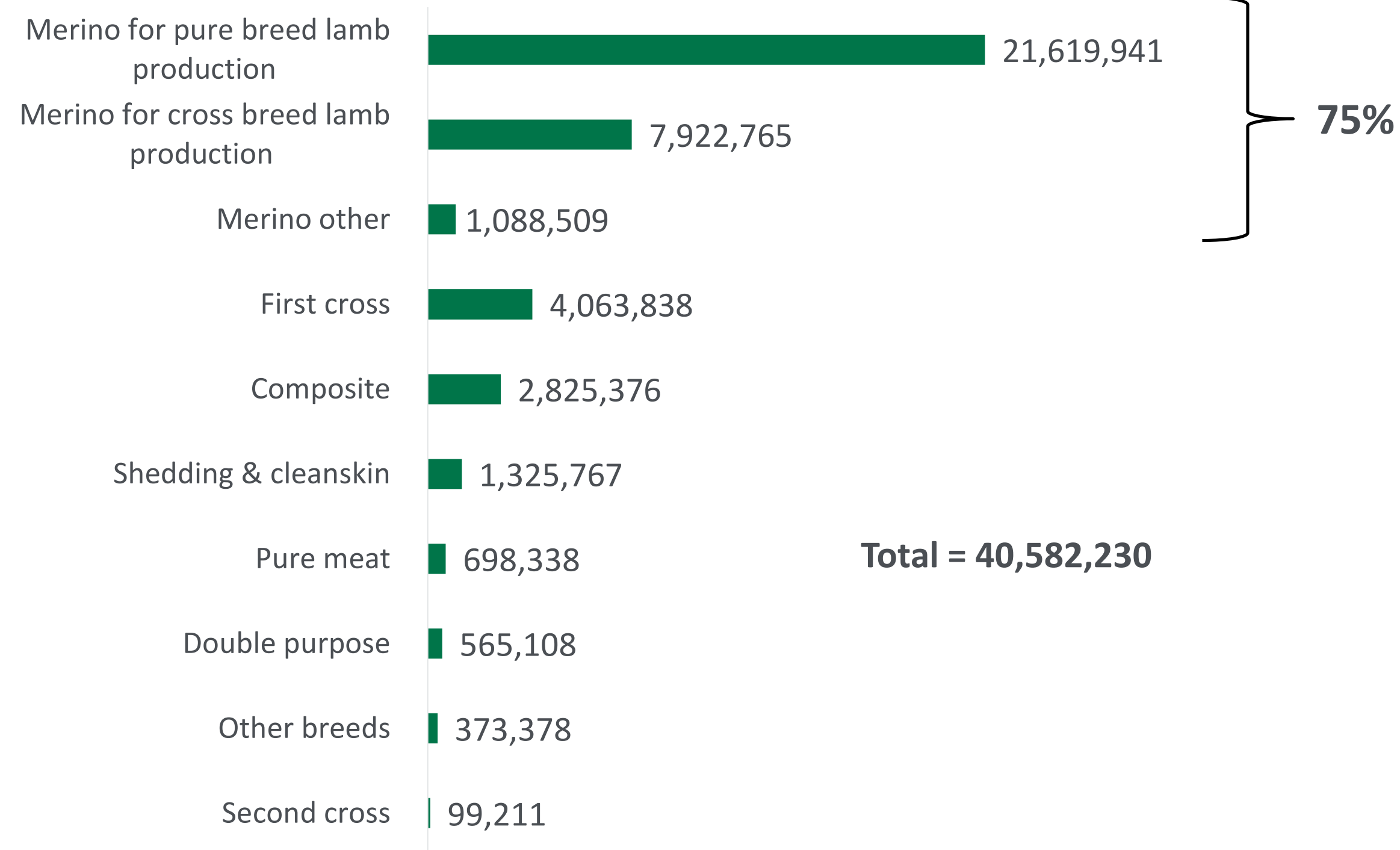
National Results

Ewes on hand and Lambs on hand - Australia

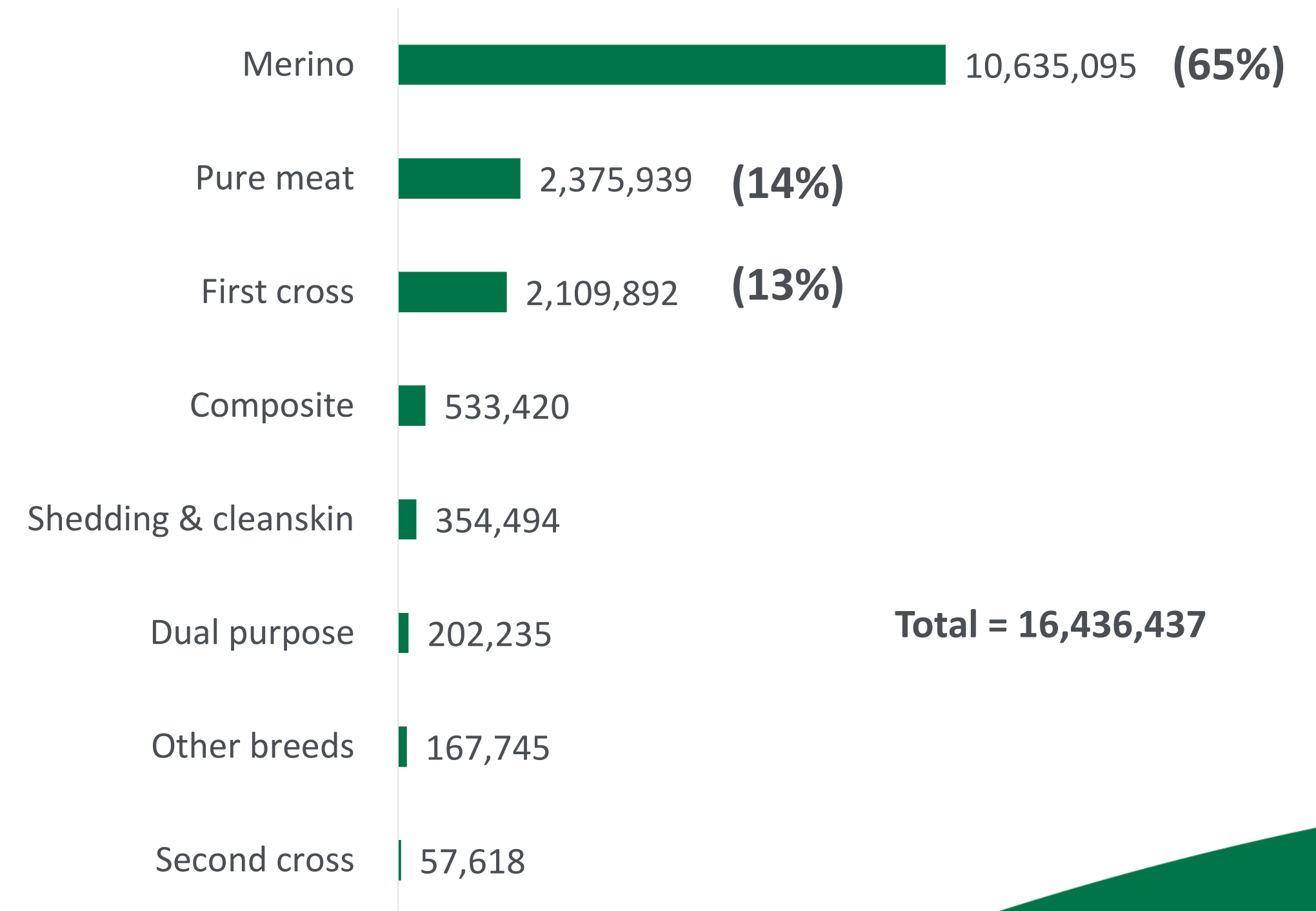
Merinos accounted for 75% of the total breeding ewe flock at **40.6 million head**. Merino breeding ewes were further divided into Merino ewes for pure bred Merino production and Merino ewes for crossbred production and 'other' Merinos, accounting for 71%, 26% and 3% of the merino flock, respectively.

There were **16.4 million** lambs on hand at 29th February 2020. Merinos made up 65% of the total lamb flock, at **10.6 million head**, followed by Pure meat and First cross lambs (accounting for 14% and 13% of the national lamb flock respectively).

Number of ewes on hand



Number of lambs on hand

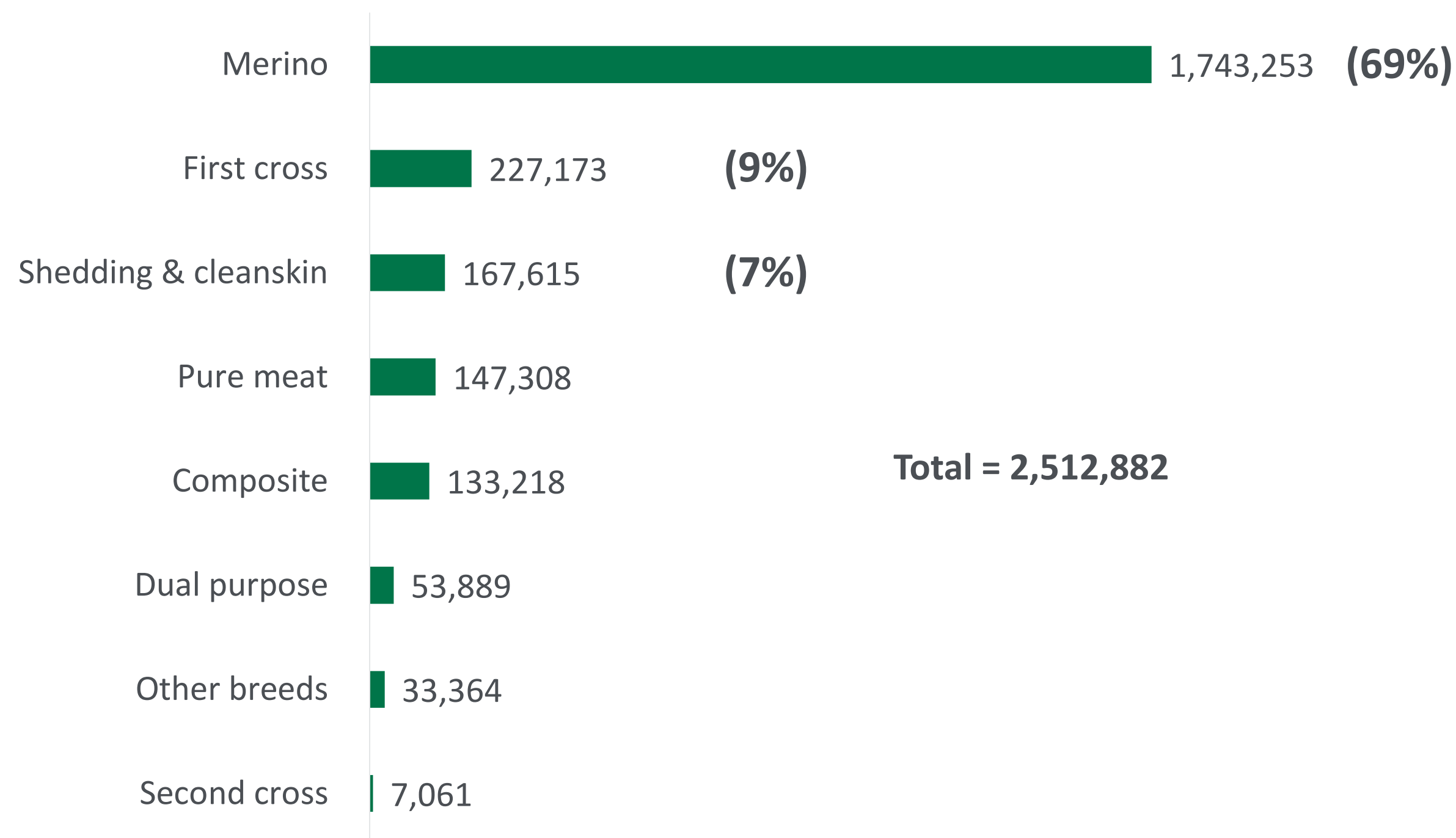


Lambs marked in the past four months (1 Nov 2019 – 29 Feb 2020) and Ewes joined to produce those lambs - Australia

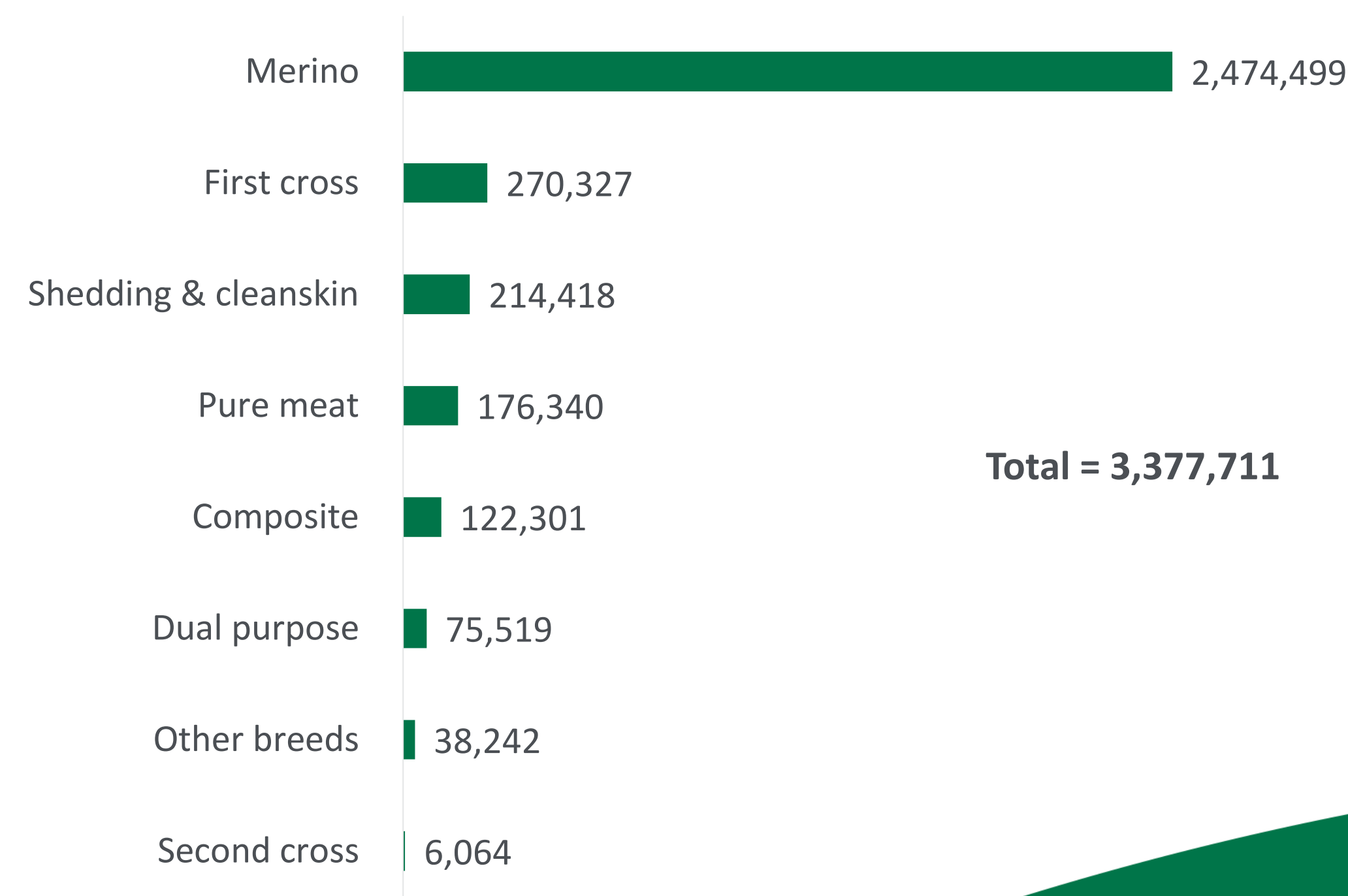
There were a total of 2.5 million lambs marked in the four months (from 1 November 2019 to 29 February 2020). Merinos accounted for the largest proportion of lambs marked in the past four months at **69%**, with First cross and Pure Meat breeds accounting for **9%** and **7%**, respectively.

A total number of 3.4 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 70% and 85% respectively.

**Lambs marked in the past 4 months
(1 Nov 2019 to 29 Feb 2020)**



**Ewes joined to produce marked lambs
(1 Nov 2019 to 29 Feb 2020)**

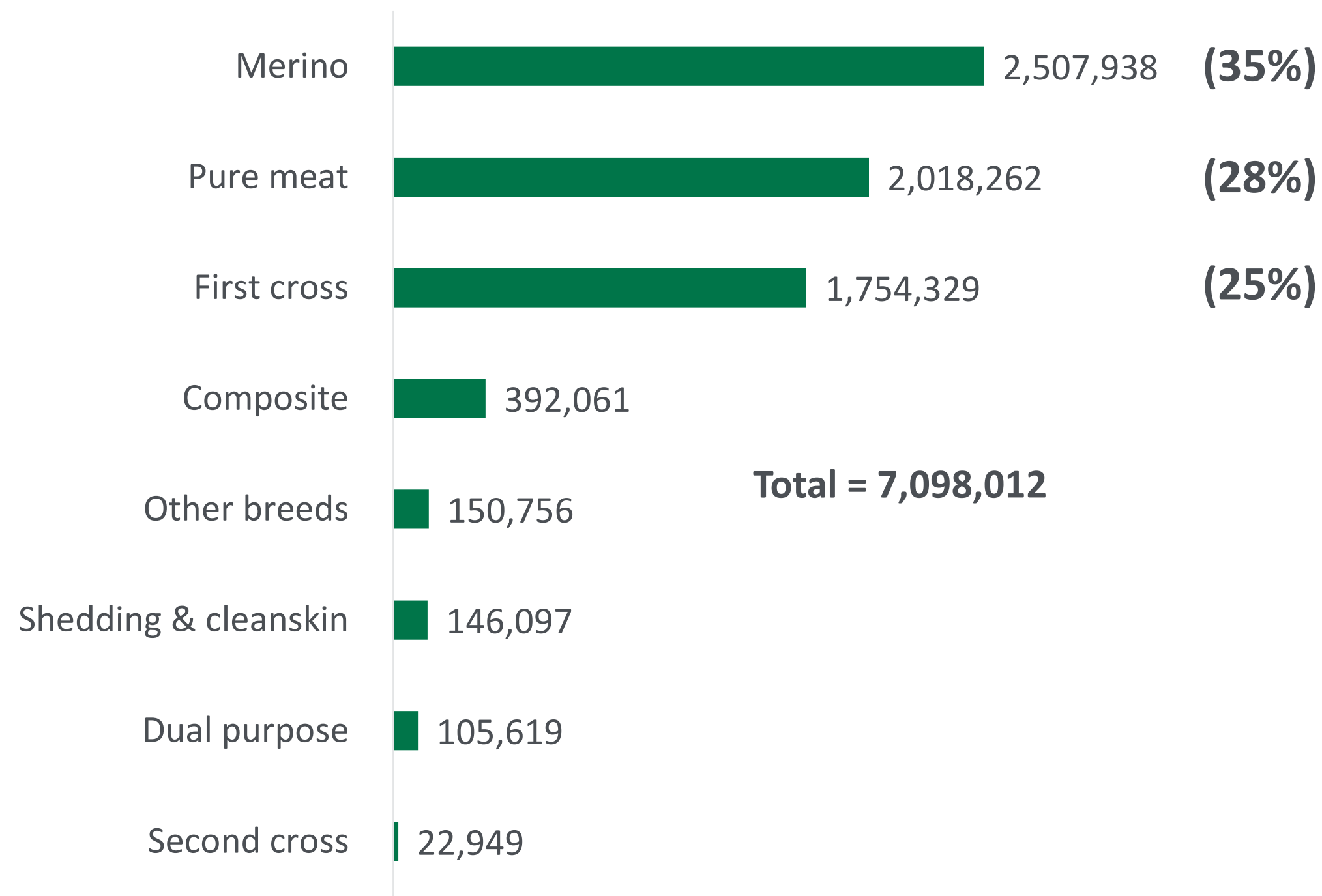


Expected lamb sales in the next 4 months - Australia

A total number of **7.1 million lambs** are expected to be sold in the next four months (1 March 2020 to 30 June 2020), approximately 43% of the total number of lambs on hand (16.4 million). Of these: Merino, Pure Meat and First Cross breeds are expected to account for 35%, 28% and 25% of lamb sales respectively.

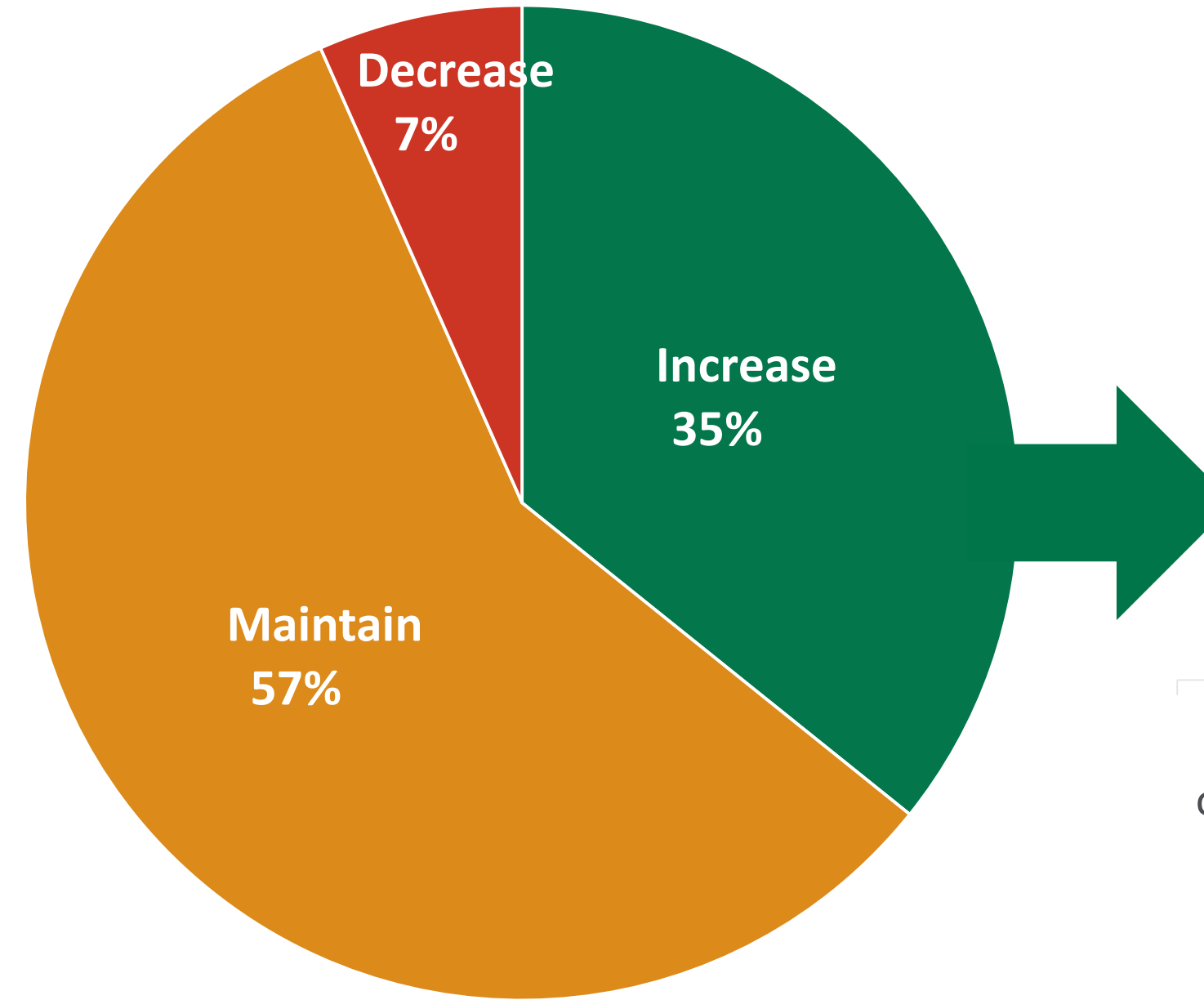
These results are consistent with producer ewe flock intentions for the next 12 months and method of achievement, with **35%** looking to increase their ewe flocks and of these 55% are expected to retain more replacement ewes than normal.

Expected lamb sales in the next 4 months



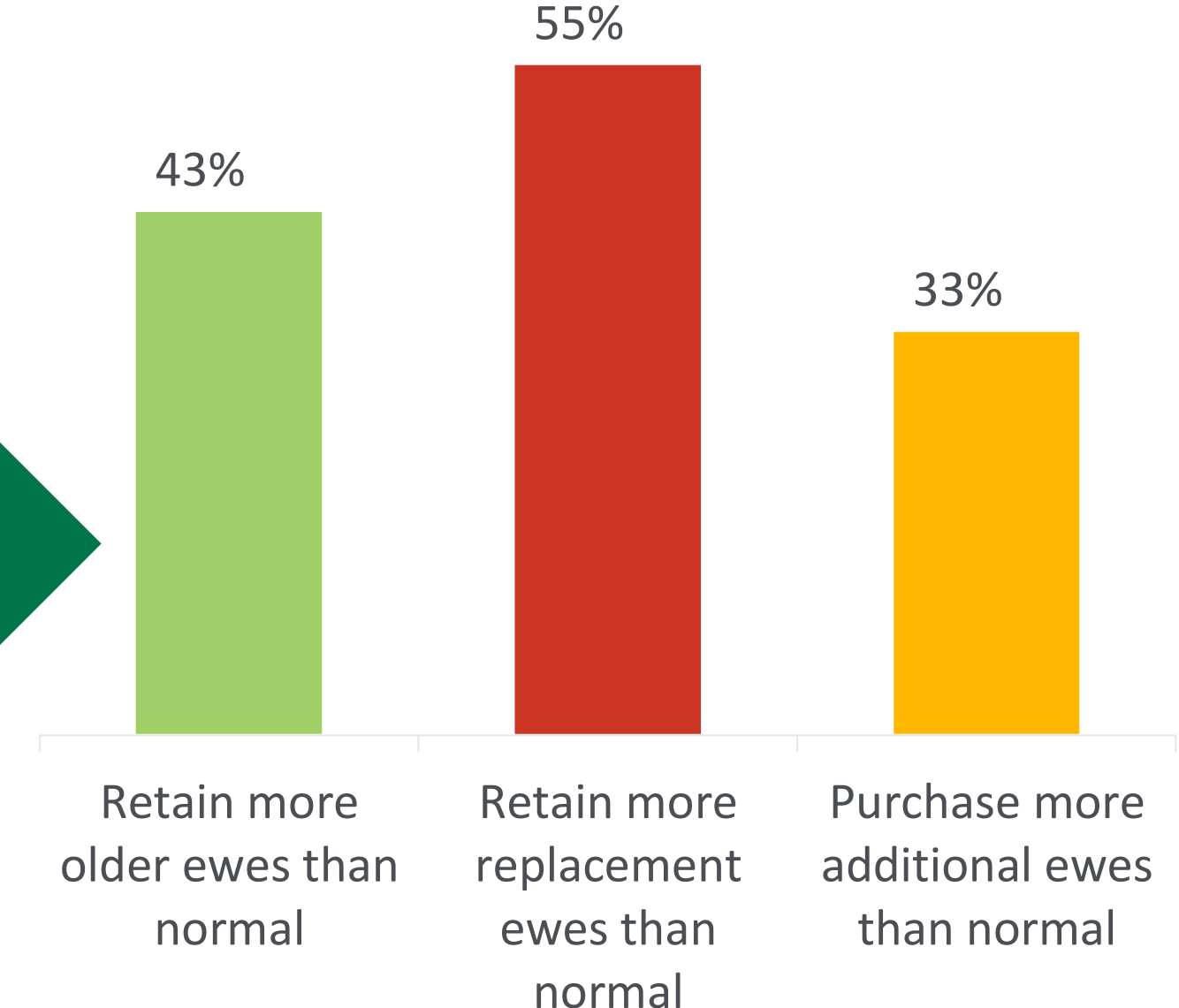
Sample base (properties) n= 2,823

Ewe flock intentions



Sample base (respondents) n= 1,812

How to achieve increase

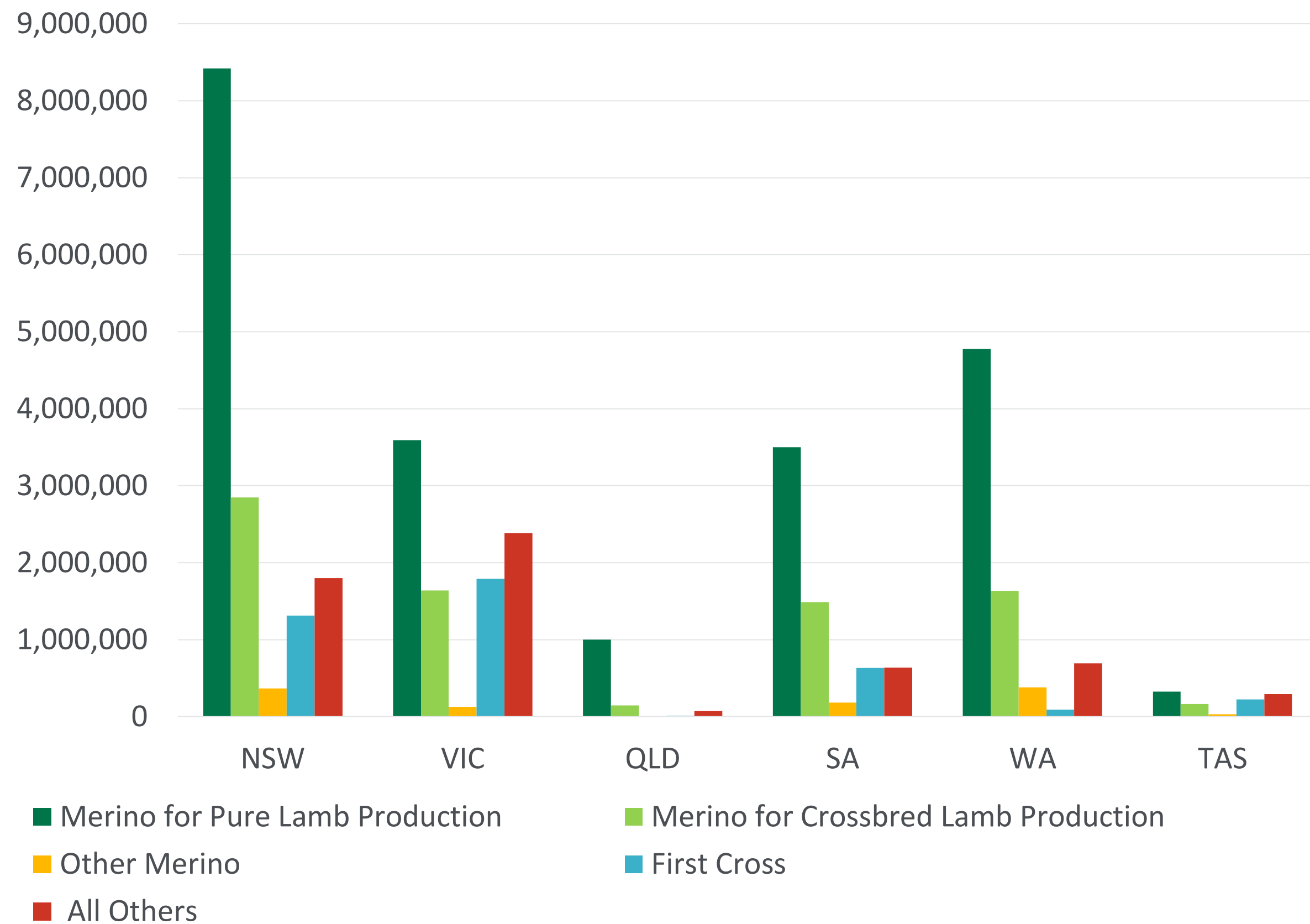


Sample base (respondents) n = 639

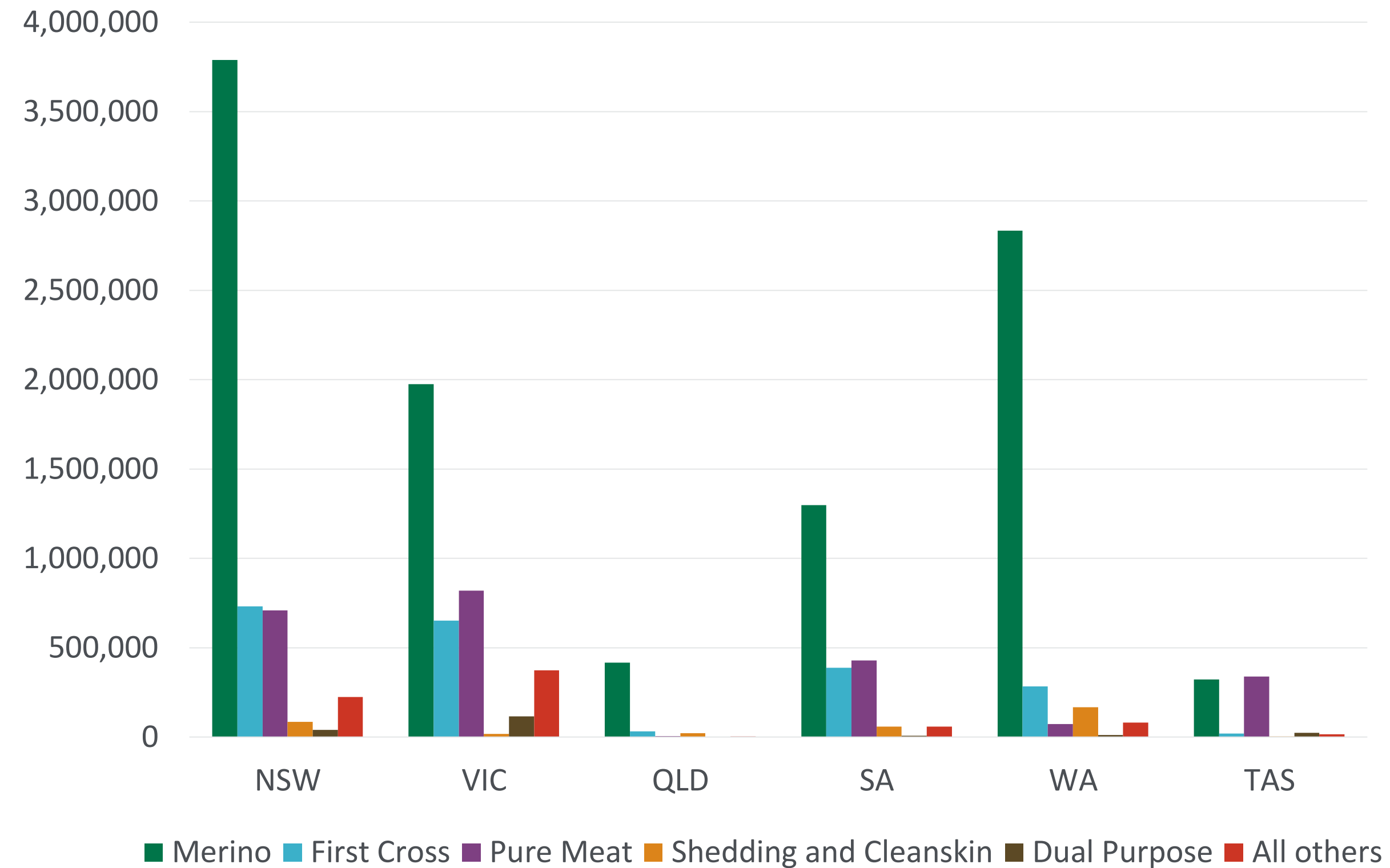
Results by State

Ewes on hand and Lambs on hand - State

Ewes on hand



Lambs on hand

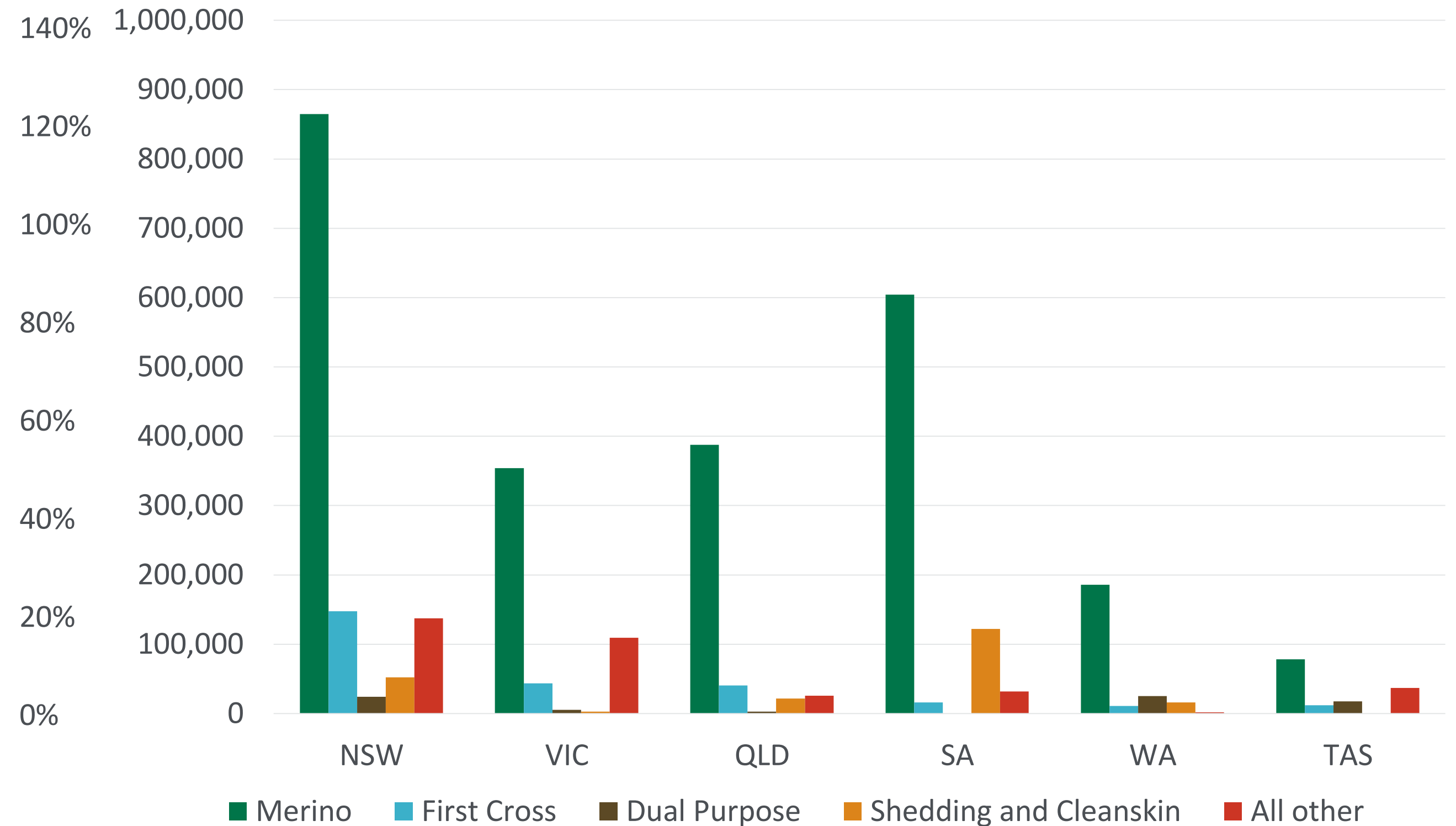


Lambs marked in the past four months and Ewes joined to produce those lambs - State

Lambs marked in the past 4 months
(1 Nov 2019 to 29 Feb 2020)

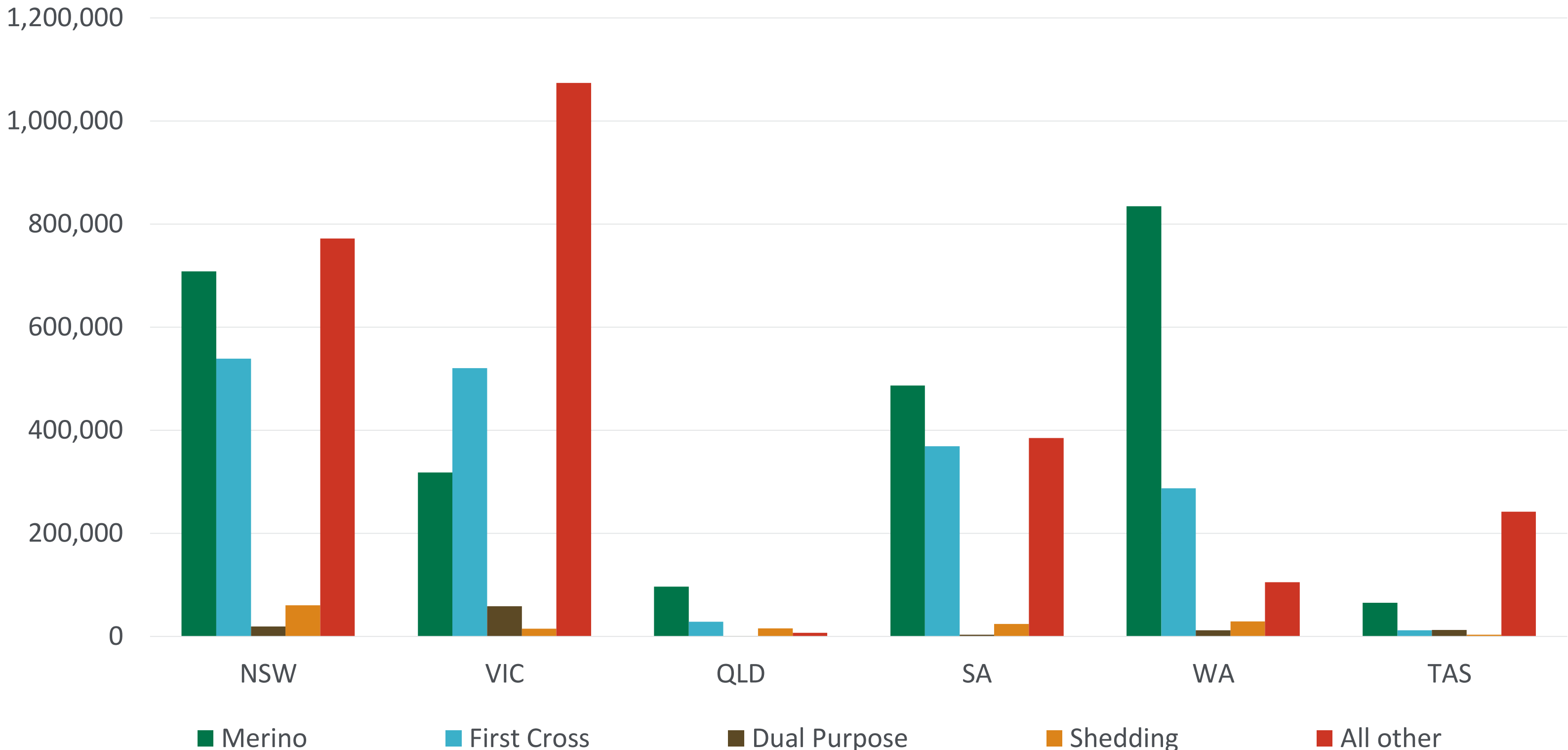


Ewes joined to produce those lambs in the past 4 months
(1 Nov 2019 to 29 Feb 2020)



Expected lamb sales in the next four months – by State

Expected lamb sales in the next 4 months (1 March – 30 June 2020)



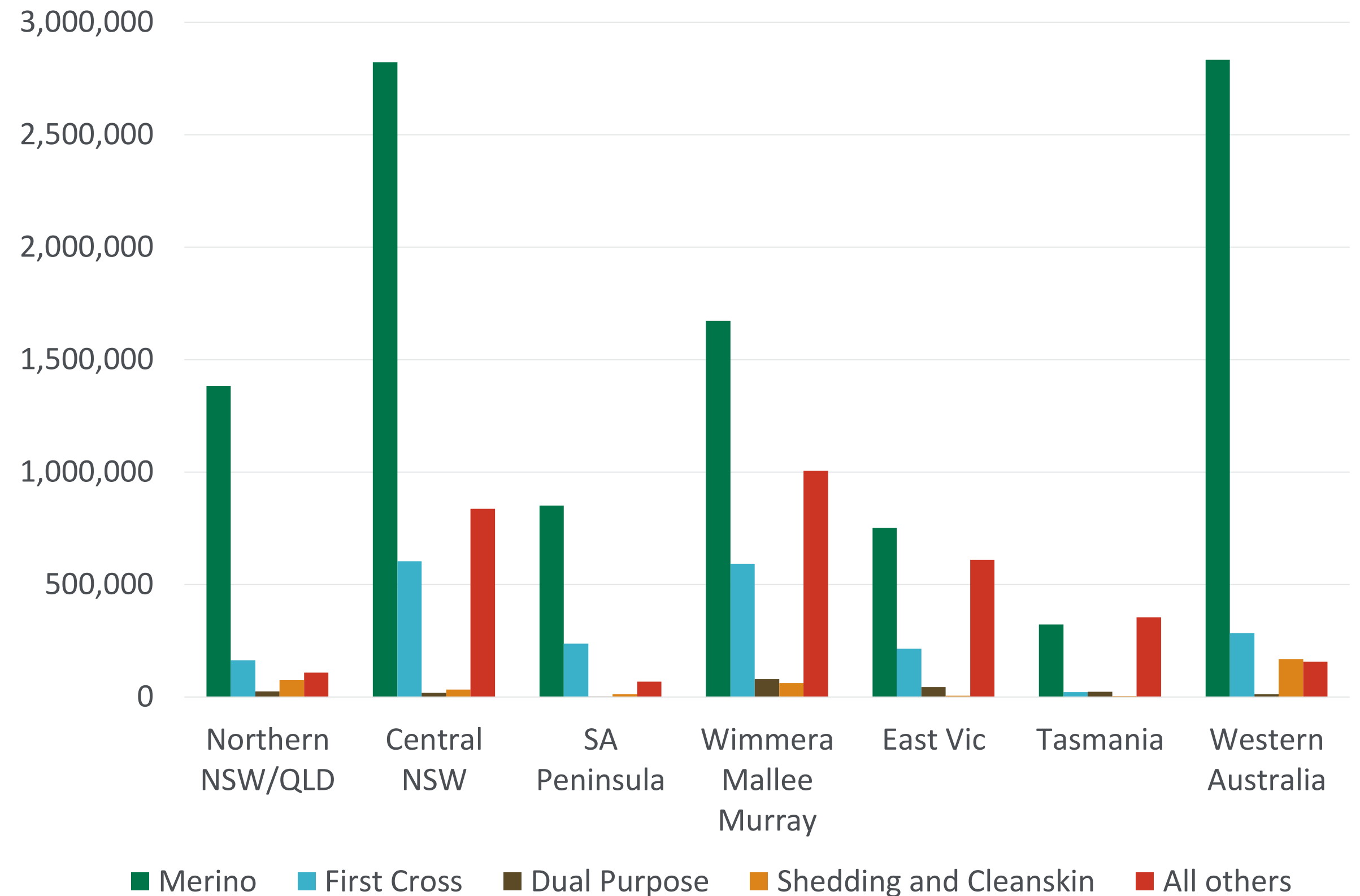
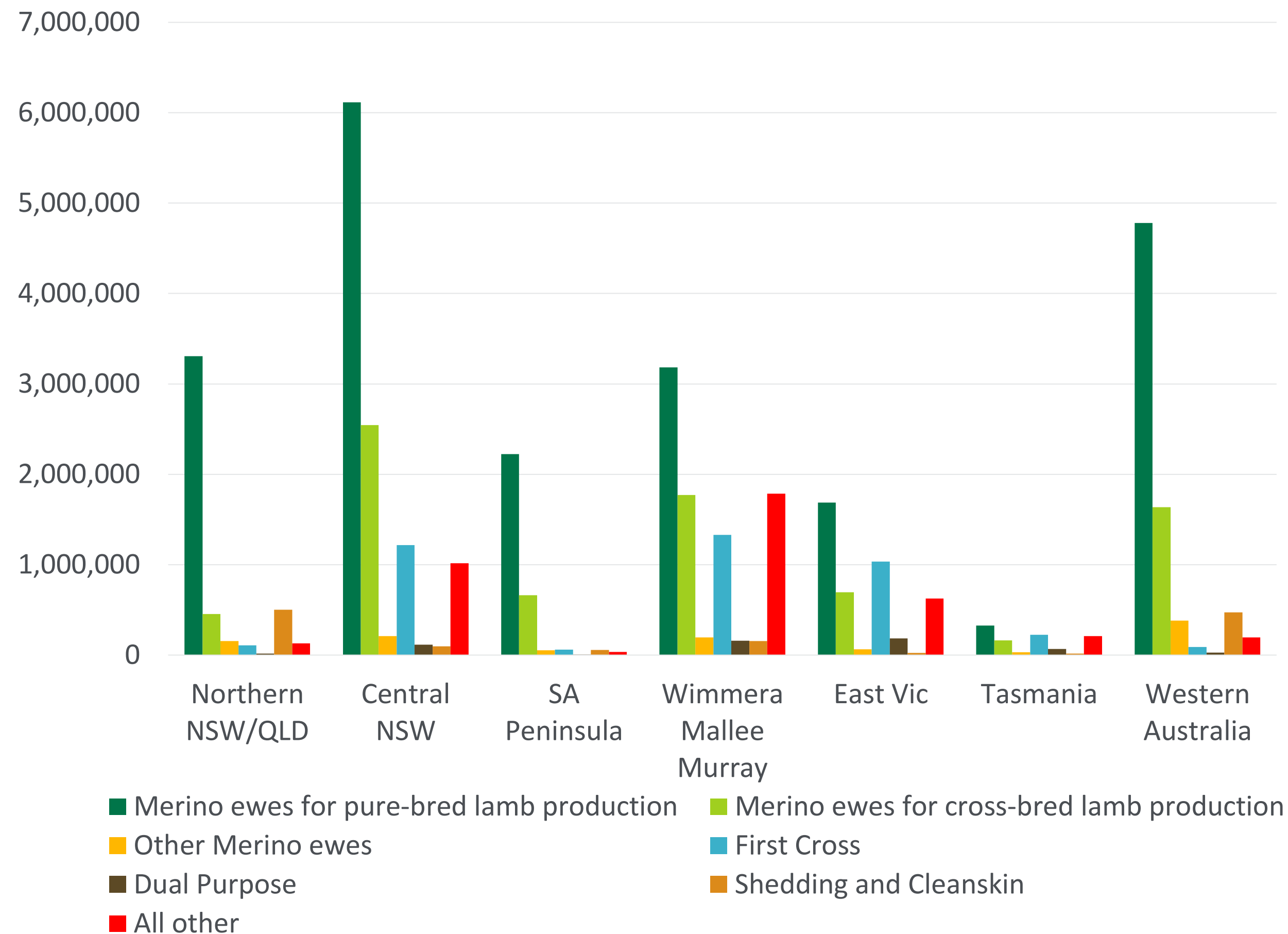
Results by MLA Reporting Region

Ewes on hand and lambs on hand 29 February 2020

- by MLA reporting regions

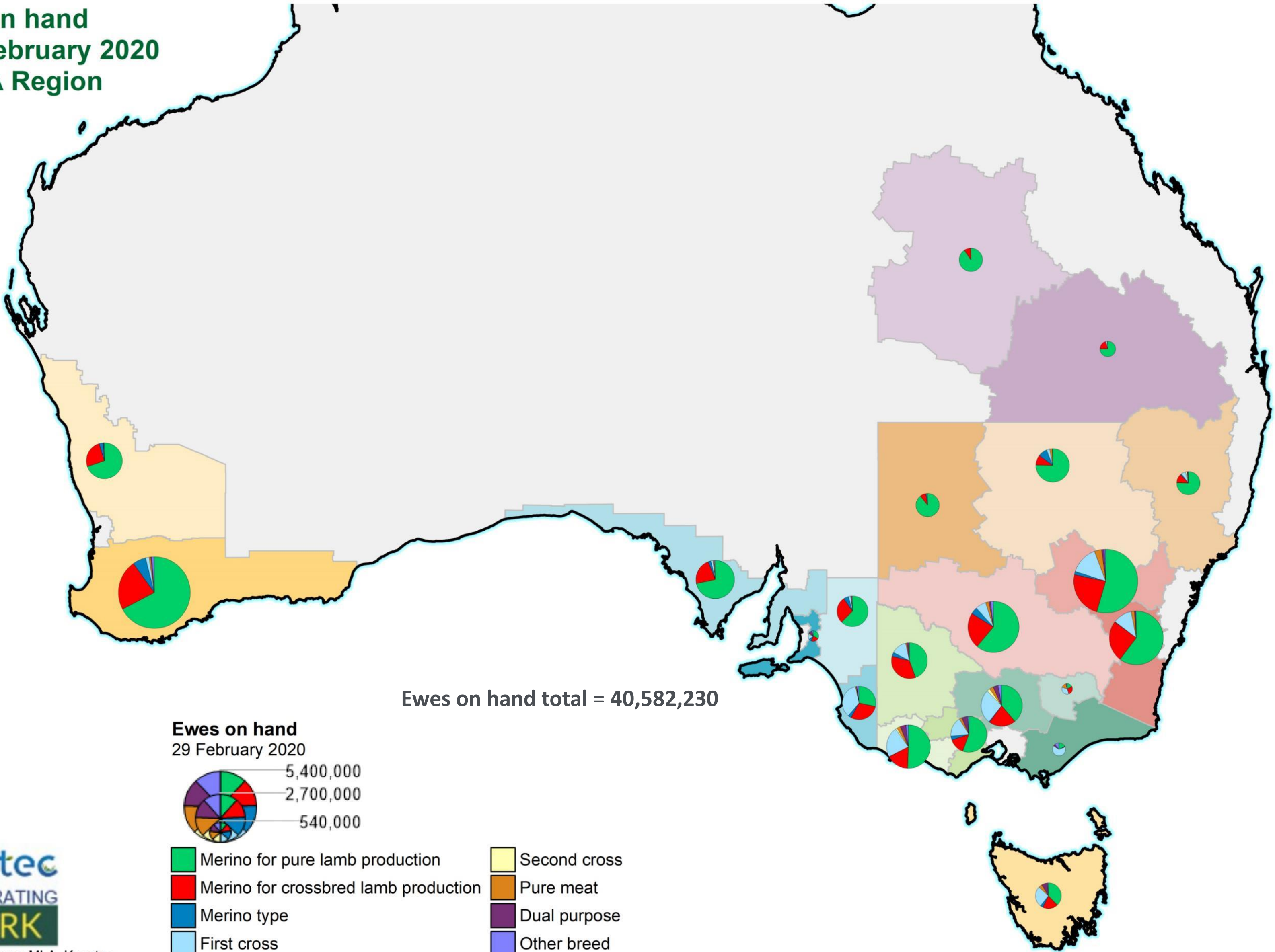
Ewes on hand

Lambs on hand



Ewes on hand – MLA reporting regions

Ewes on hand
at 29 February 2020
by MLA Region



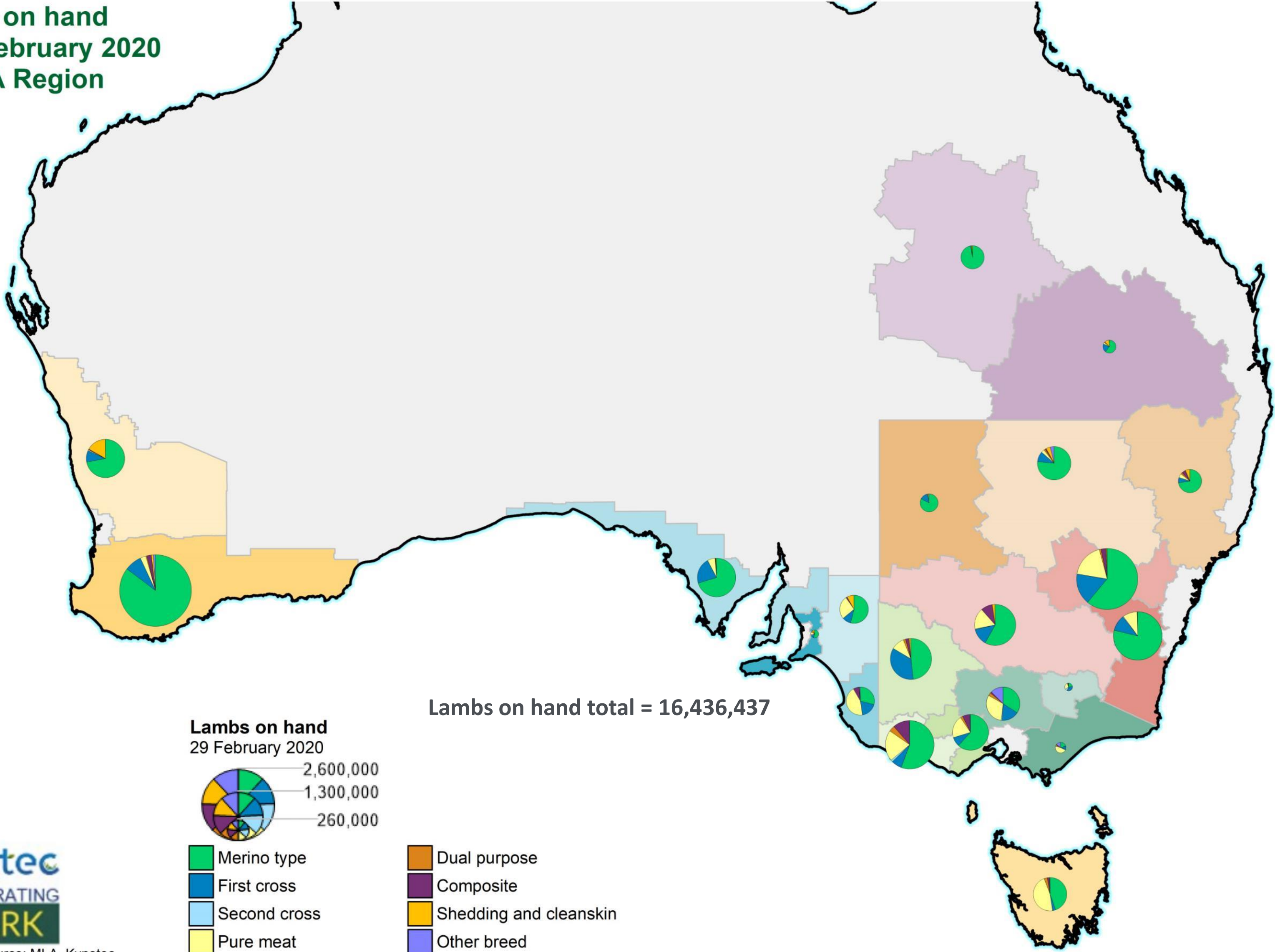
The breeding ewe population was largest in WA South (5.6 m), Central West NSW (4.6 m) and Western District VIC (3.5 m).

Central Queensland (97%), Eyre Yorke and North Extra (96%) and Eyre Yorke and North (95%) had the highest percentage of merinos in their flock followed by WA South (93%) and North Western (88%) (Merino for Pure lamb, Merino for cross lamb production and Merino other).

Conversely, when considering regions with over 40,000 non merinos, the largest percentage of non-merino ewes was in Gippsland (81%), Ovens Murray (58%) and Western District (54%).

Lambs on hand – by MLA reporting regions

Lambs on hand
at 29 February 2020
by MLA Region



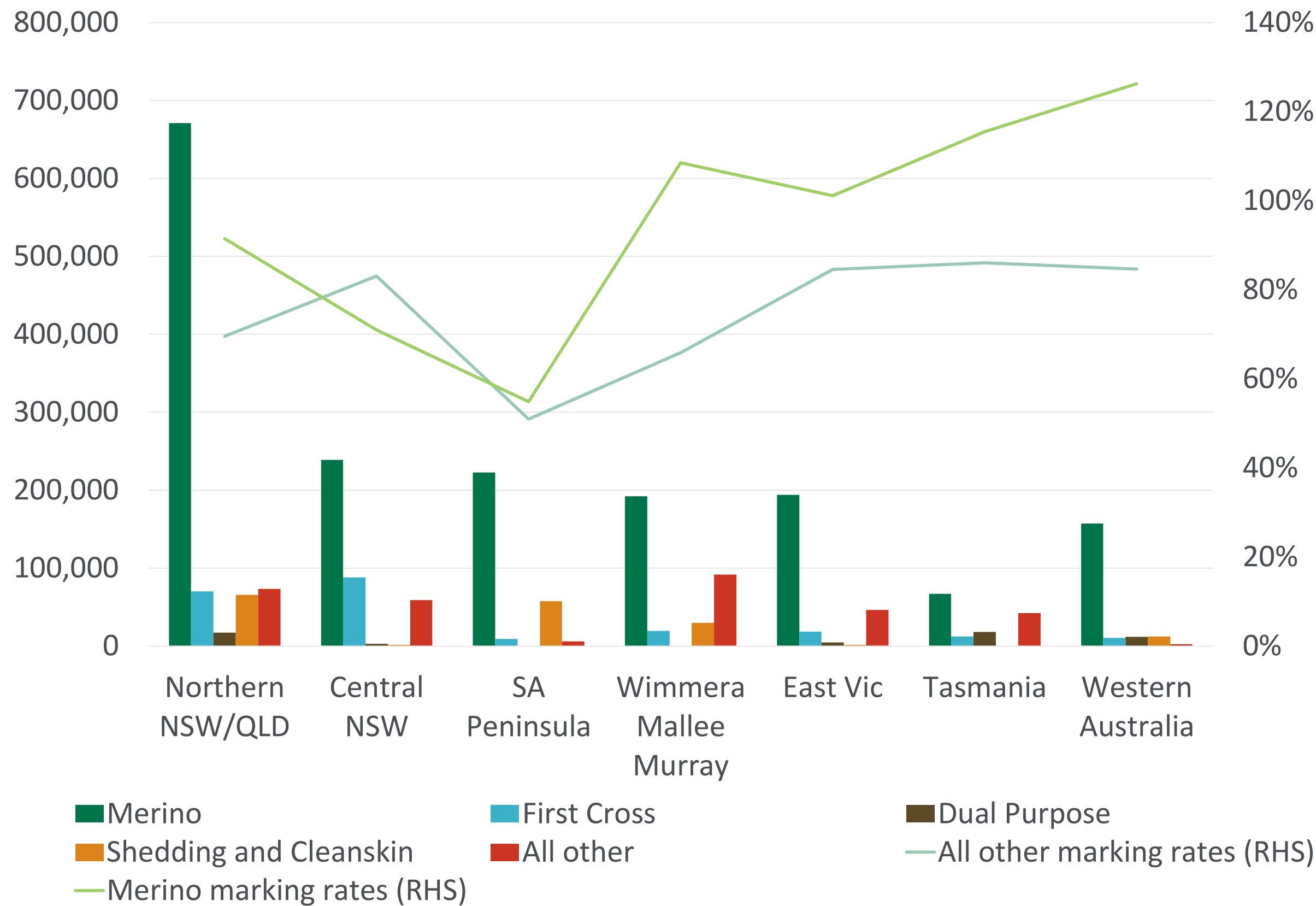
In line with a larger ewe flock population, the number of lambs on hand at 29 February was greatest in WA South at 2.6 million head. This was followed by the Central West region, recording around 2.0 million head.

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. First cross lambs comprised 35% of the total lambs in the Wimmera and Mallee while in Eyre Yorke and North Extra 22% of the flock is First cross lambs. Pure meat in Tasmania and South East comprised of 47% and 44% of the total lamb flocks, respectively.

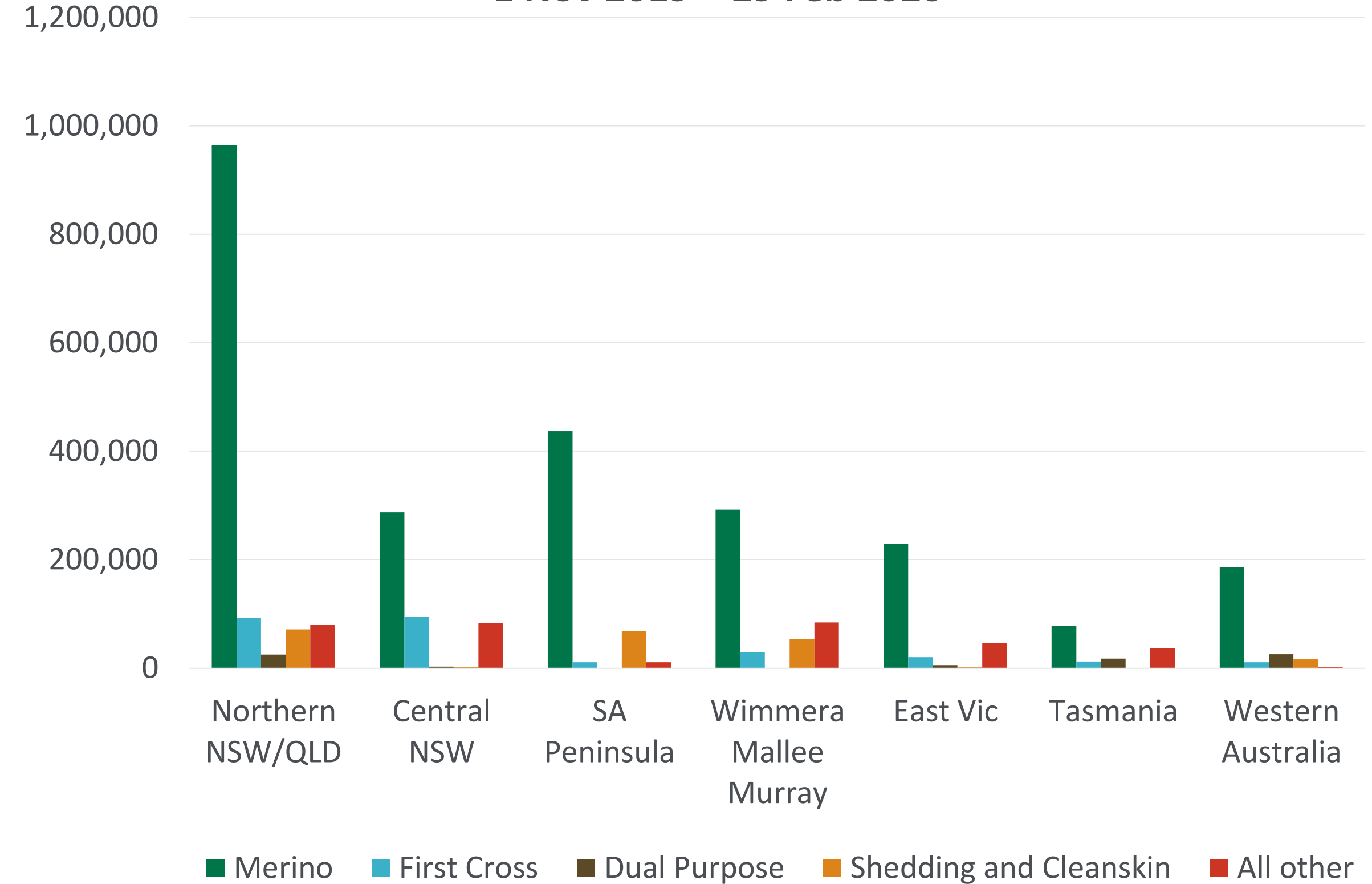
NSW had the largest Merino lamb flock at around 3.8 million head, accounting for 68% of the 5.6 m total NSW lamb flock. In WA however, Merinos accounted for 82% of the total lamb flock (2.8 m of 3.5 m head).

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

Lambs marked in the past 4 months
1 Nov 2019 – 29 Feb 2020



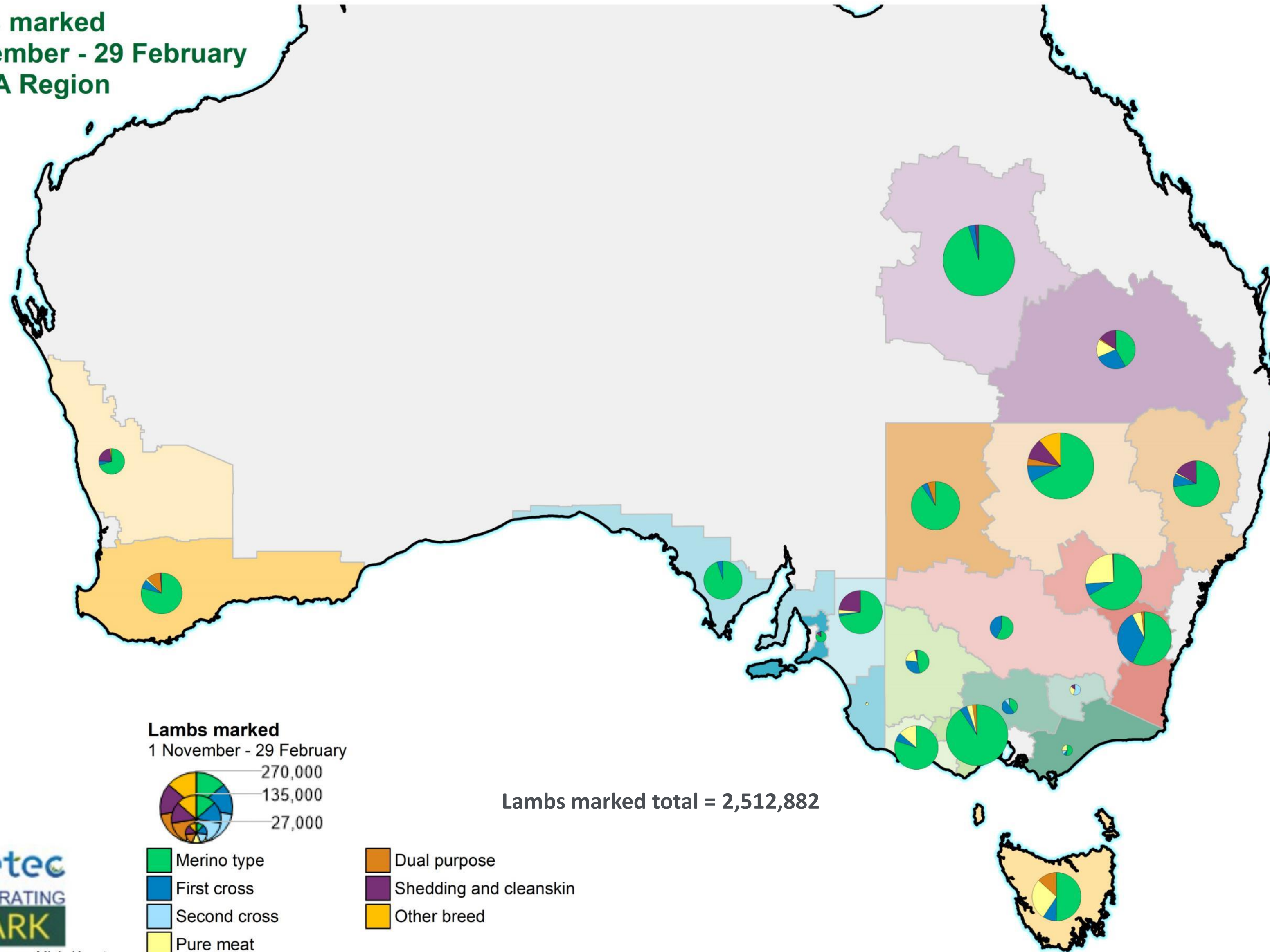
Ewes joined to produce those lambs in the past 4 months
1 Nov 2019 – 29 Feb 2020



Sample base (properties) n= 2,823

Lambs marked in the past four months

Lambs marked
1 November - 29 February
by MLA Region



Around 2.5 million lambs were marked over the past four months.

Central QLD, North Western and Barwon and Central Highlands accounted for a large number of new lambs, with markings of 267, 247 and 228 thousand head respectively.

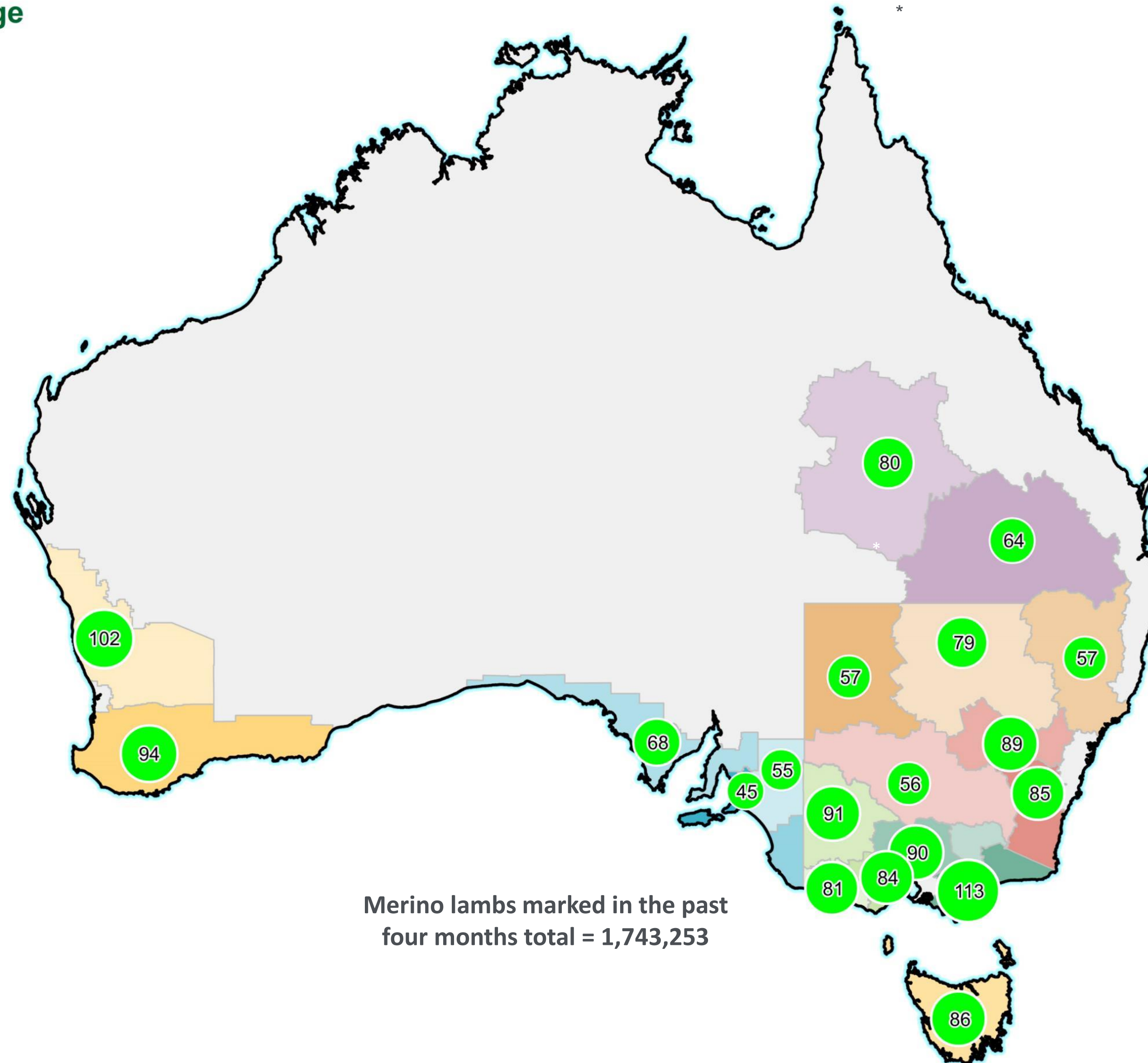
Lambs marked
1 November - 29 February

270,000
135,000
27,000

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

Merino lamb marking rates – by MLA reporting regions

Lambs marked percentage
of merinos
by MLA Region



The highest Merino marking rates were recorded in Gippsland (113%) and Central Midlands (102%). Conversely, the lowest marking rates in regions with great than 30,000 merino lambs marked were recorded in Eyre Yorke and North Extra at 43% and Murray Lands at 55%.

Nationally the Merino marking rate was 70% and on a state basis SA and NSW had the lowest marking rate at 52% and 71% respectively, while TAS and WA recorded the highest Merino marking rates of 86% and 85% respectively.

Note: These marking rates are for the period between 1 November 2019 to 29 February 2020.

Merino lambs
Percentage marked

- 100
- 50
- 10

Merino lambs marked in the past
four months total = 1,743,253

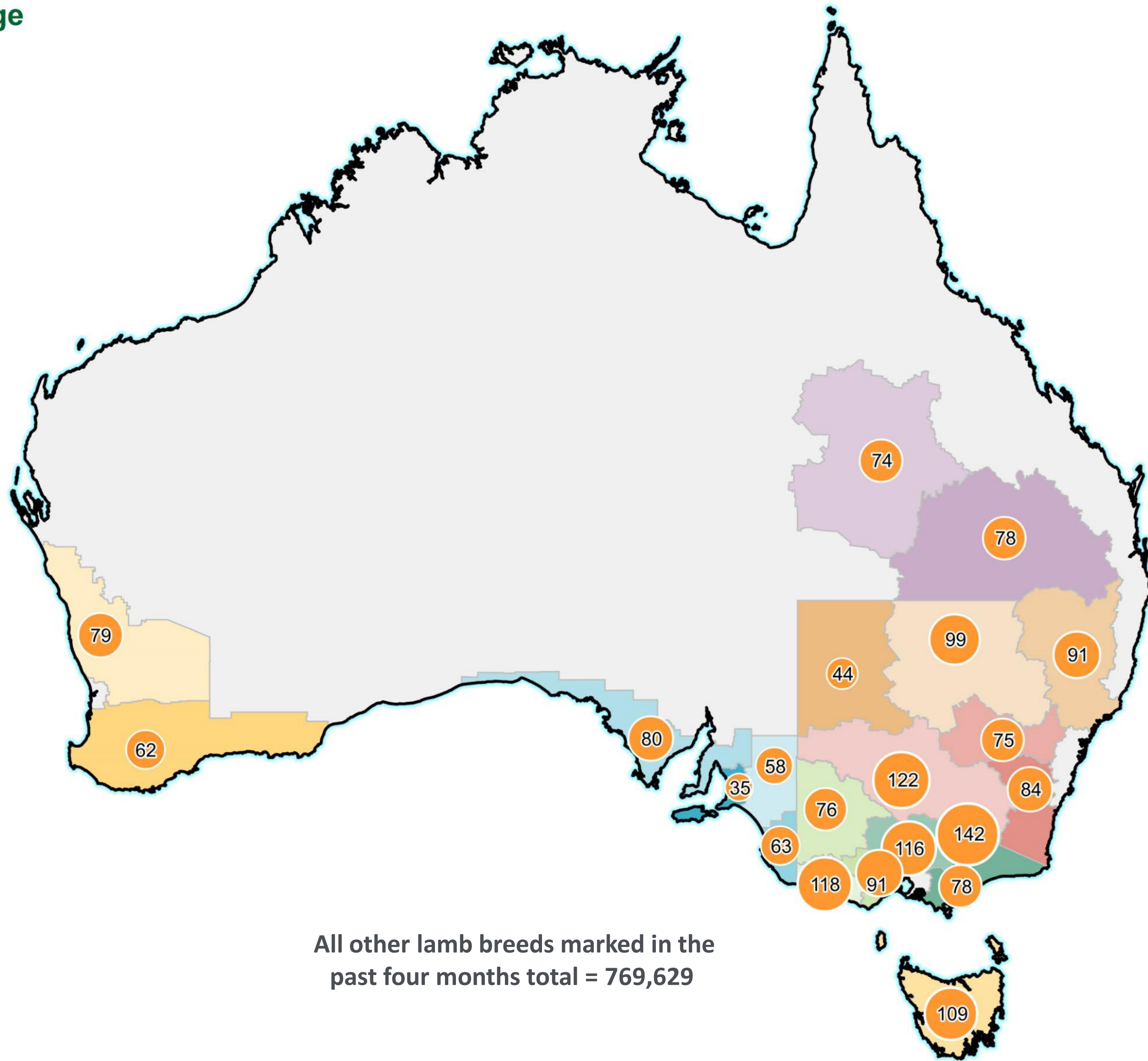
Sample base (properties) n = 2,823

All other breed lamb marking rates—by MLA reporting regions

Lambs marked percentage of non merino by MLA Region

Non merino lambs Percentage marked

- 130
- 65
- 13



All other lamb breeds marked in the past four months total = 769,629

Of those regions that marked more than 10,000 non merino lambs Murray and Murrumbidgee and Western District recorded the highest marking rates for non-Merino lambs at 122% and 118% respectively.

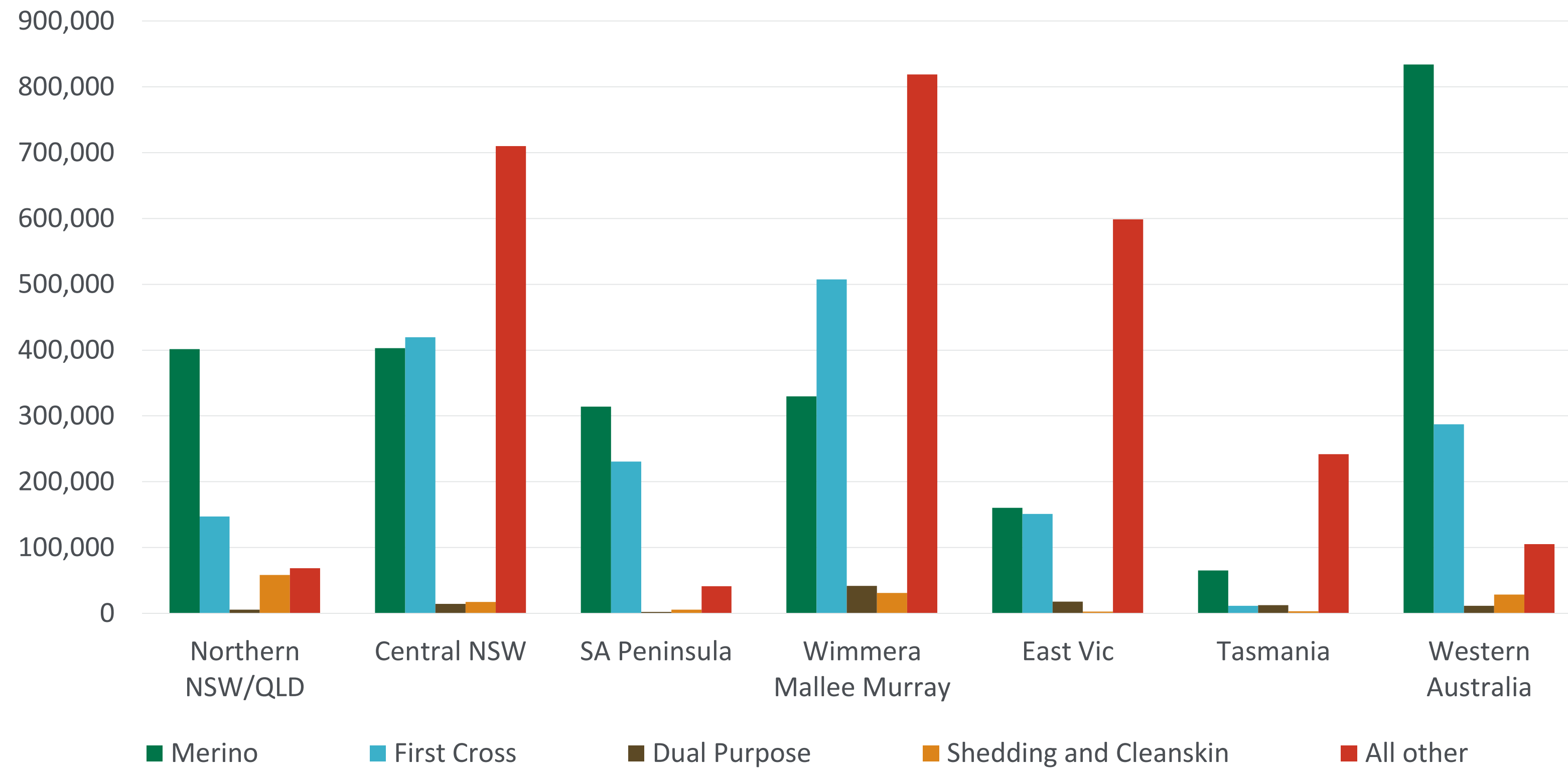
On a state basis TAS and VIC recorded the highest non-merino marking rates at 109% and 103% respectively, above WA at 67% and QLD at 77%.

Note: These marking rates are for the period between 1 November 2019 to 29 February 2020.

Sample base (properties) n= 2,823

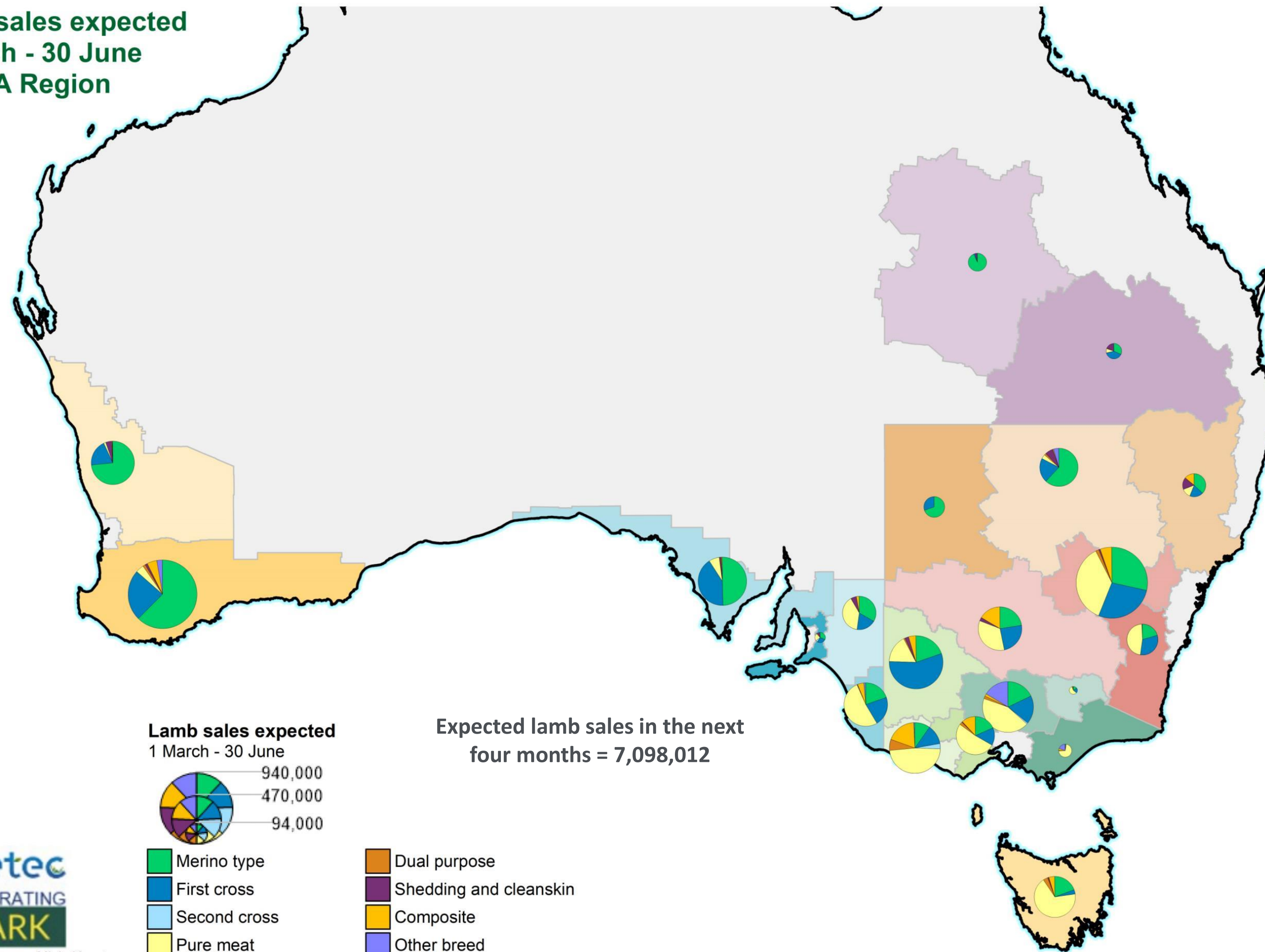
Expected lamb sales in next four months (1 March – 30 June 2020) – by MLA reporting regions

Expected lamb sales in the next 4 months



Expected lamb sales in next four months

Lamb sales expected
1 March - 30 June
by MLA Region



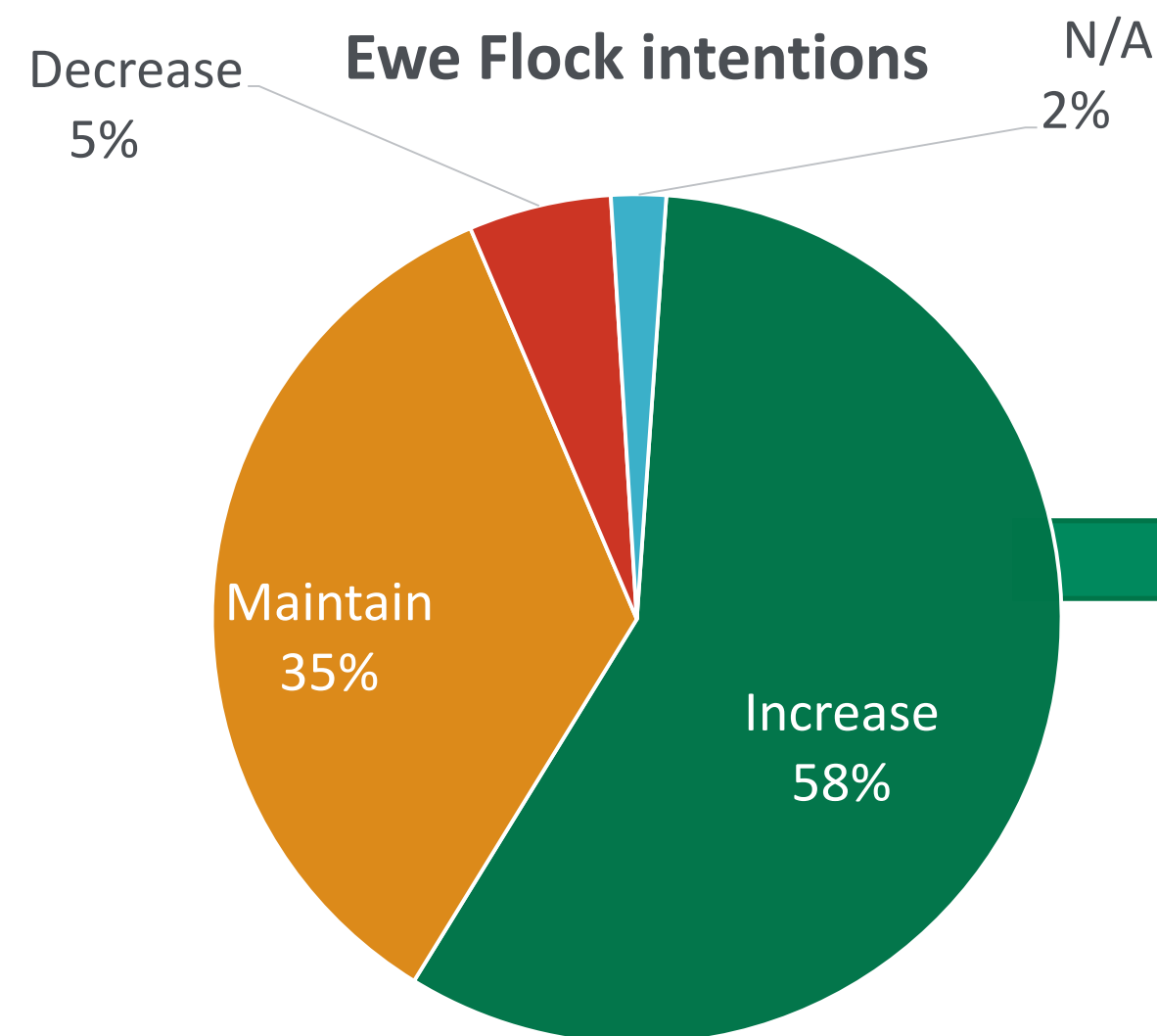
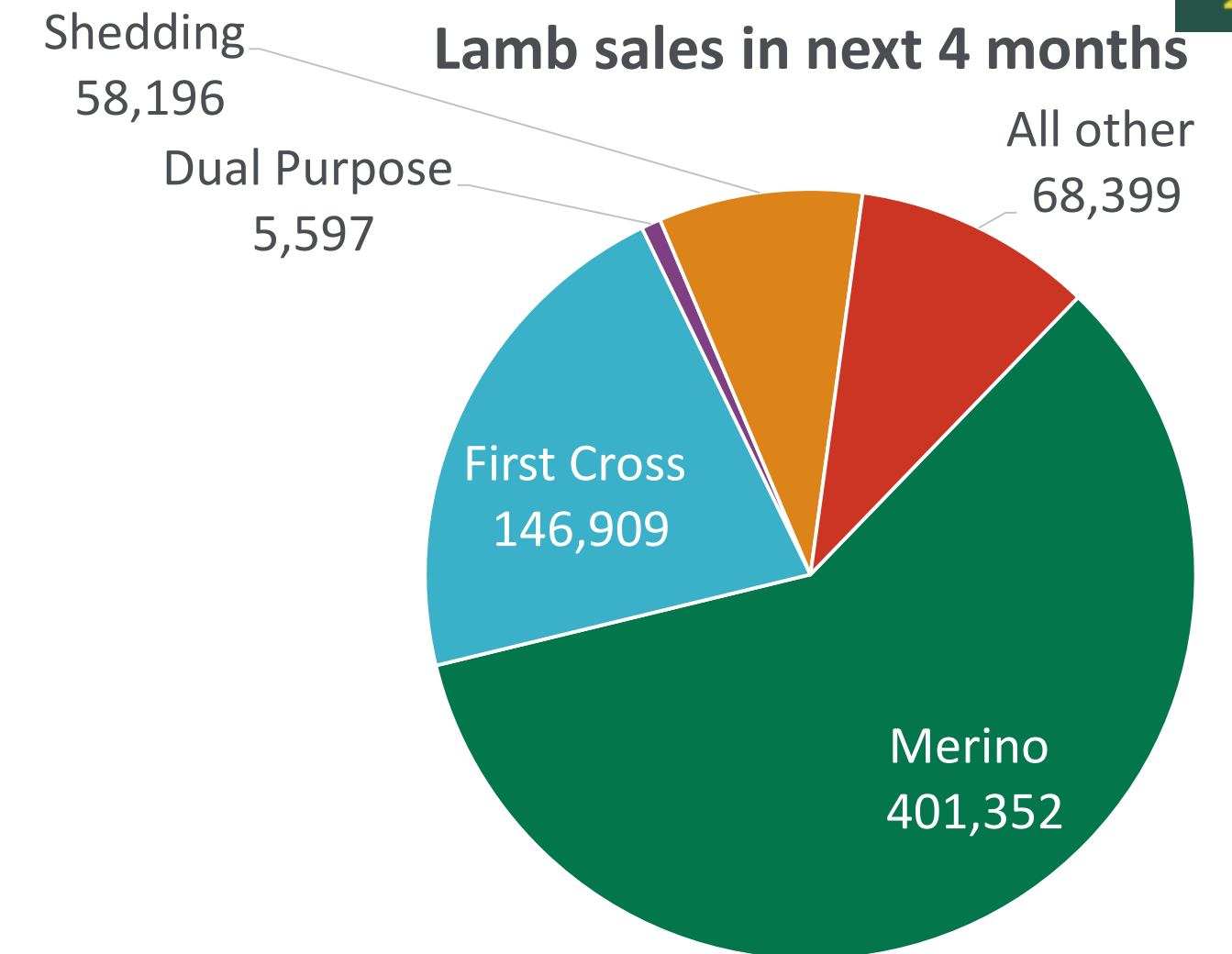
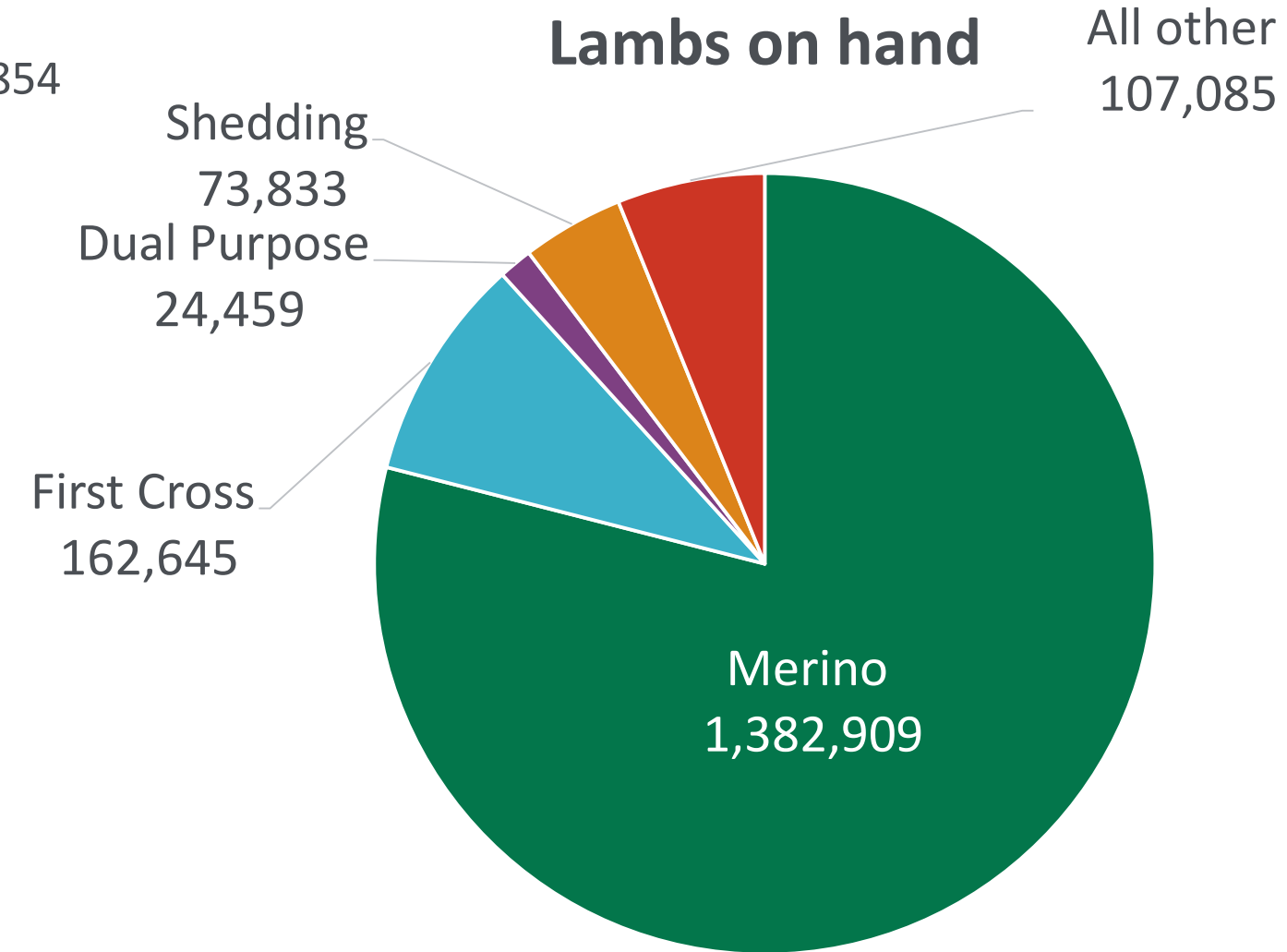
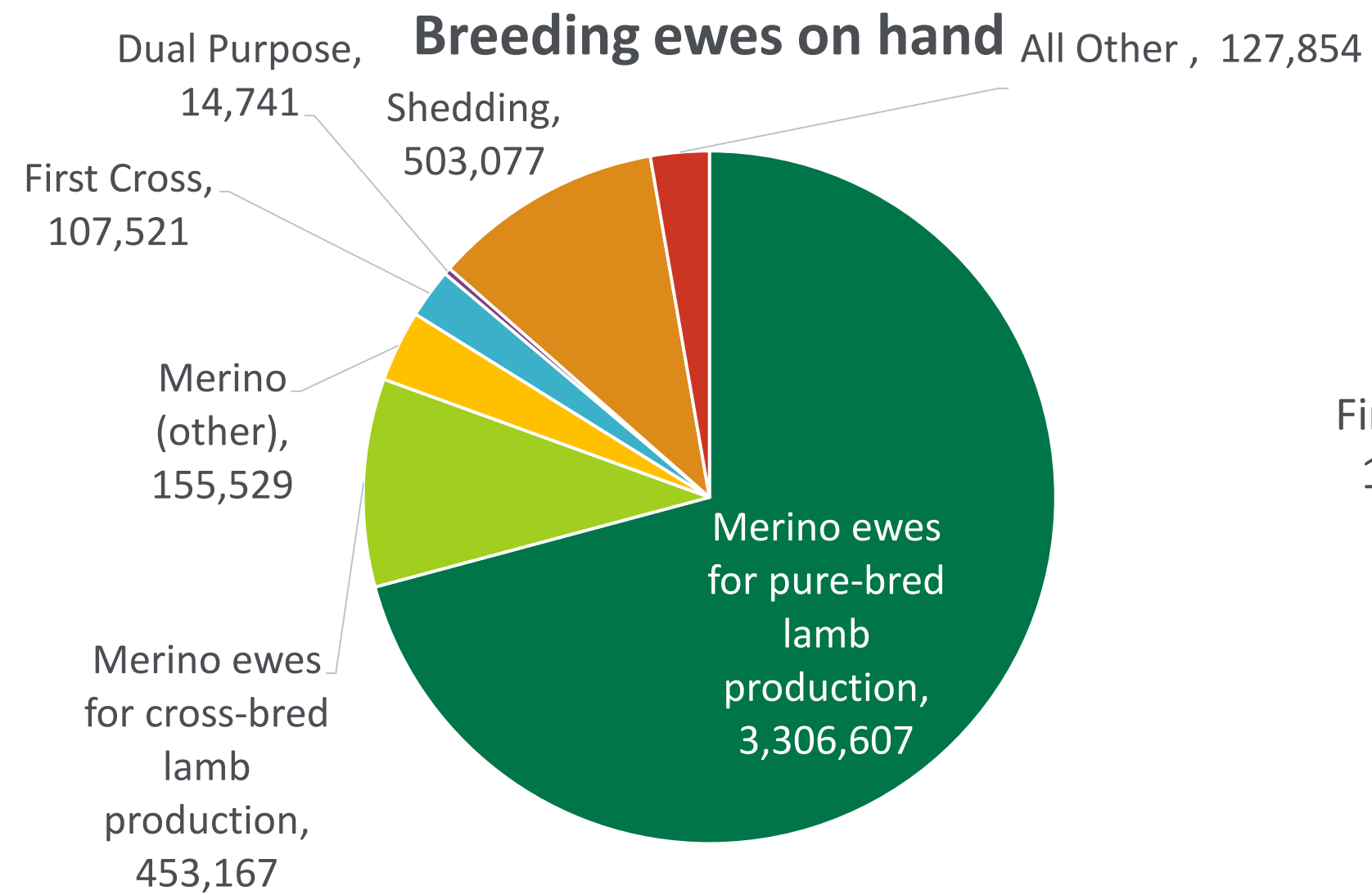
Over the next four months (1 March to 30 June 2020), most lamb sales are expected to occur in Central West 937, WA South 861 and Wimmera and Mallee 566 thousand head respectively.

Merino's are expected to account for 35% of national lamb sales, with the proportion higher in WA and QLD (66% and 65% respectively). Non merino breeds will account for 65% of lamb sales, being highest in VIC (84%) and TAS (80%).

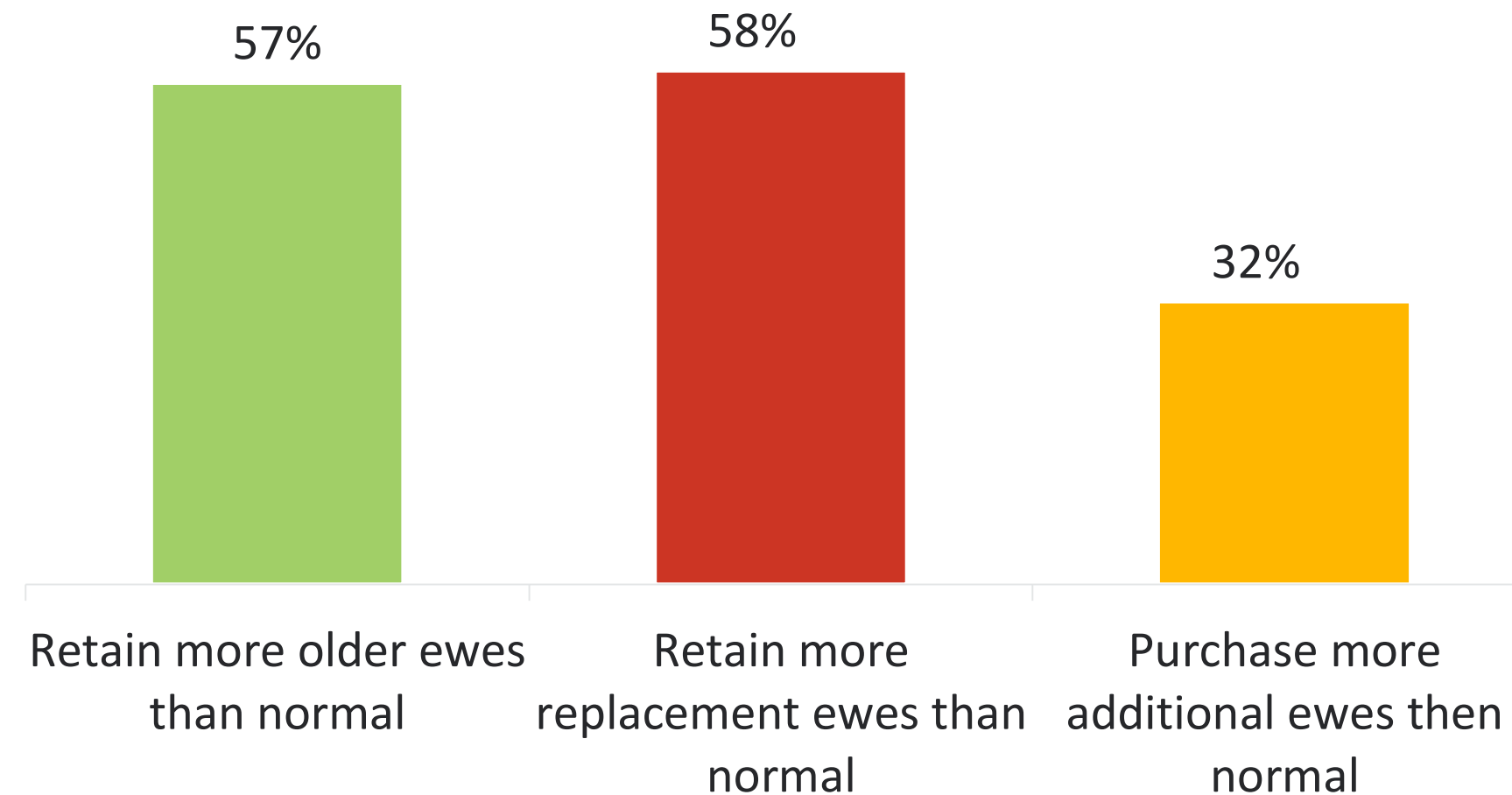
NSW is expected to account for 30% of total lamb sales over the next four months, with around 2.1 million lambs expected to be on offer. This is followed by VIC and WA at 28% and 18% of total lamb sales, respectively.

Regional Snapshots

Northern NSW/QLD



How to achieve increase

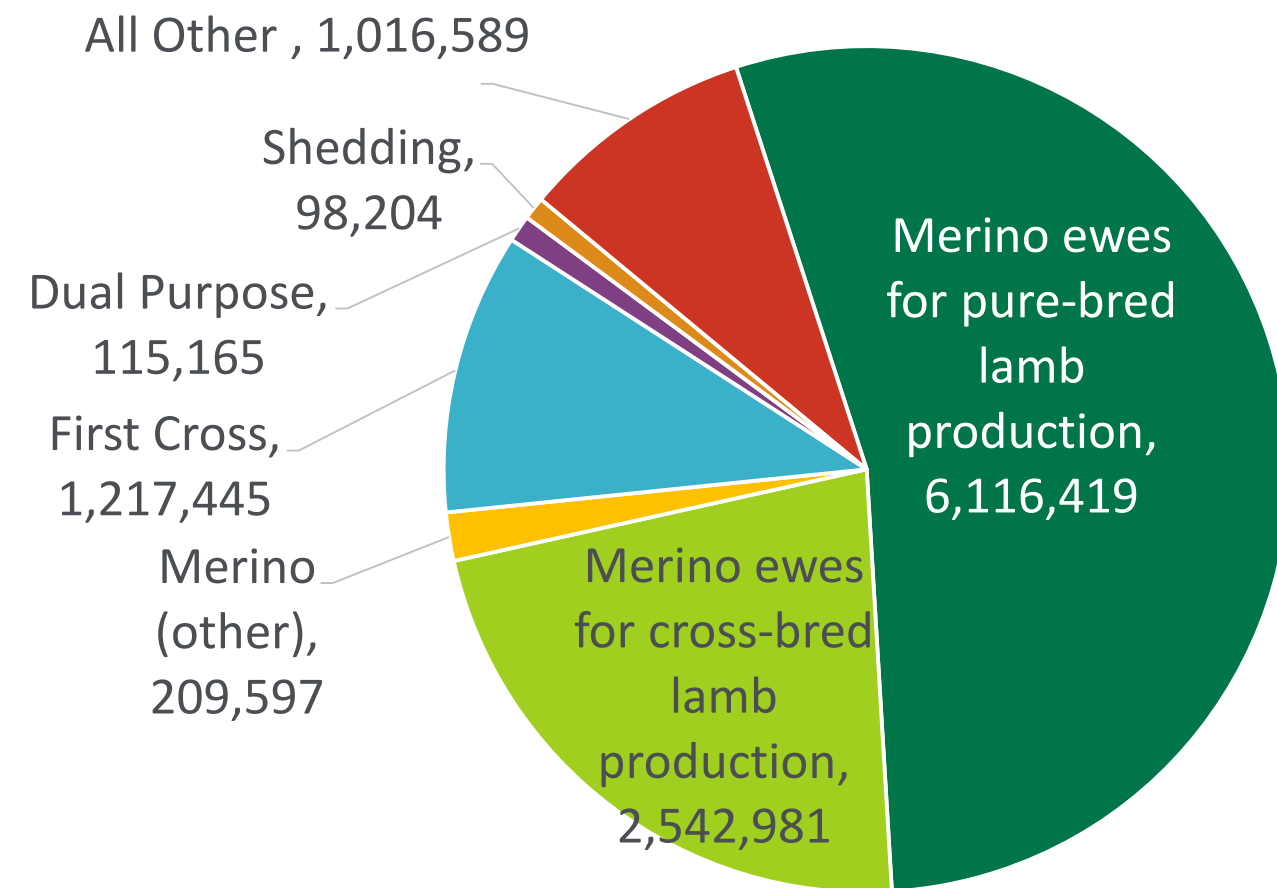


Totals

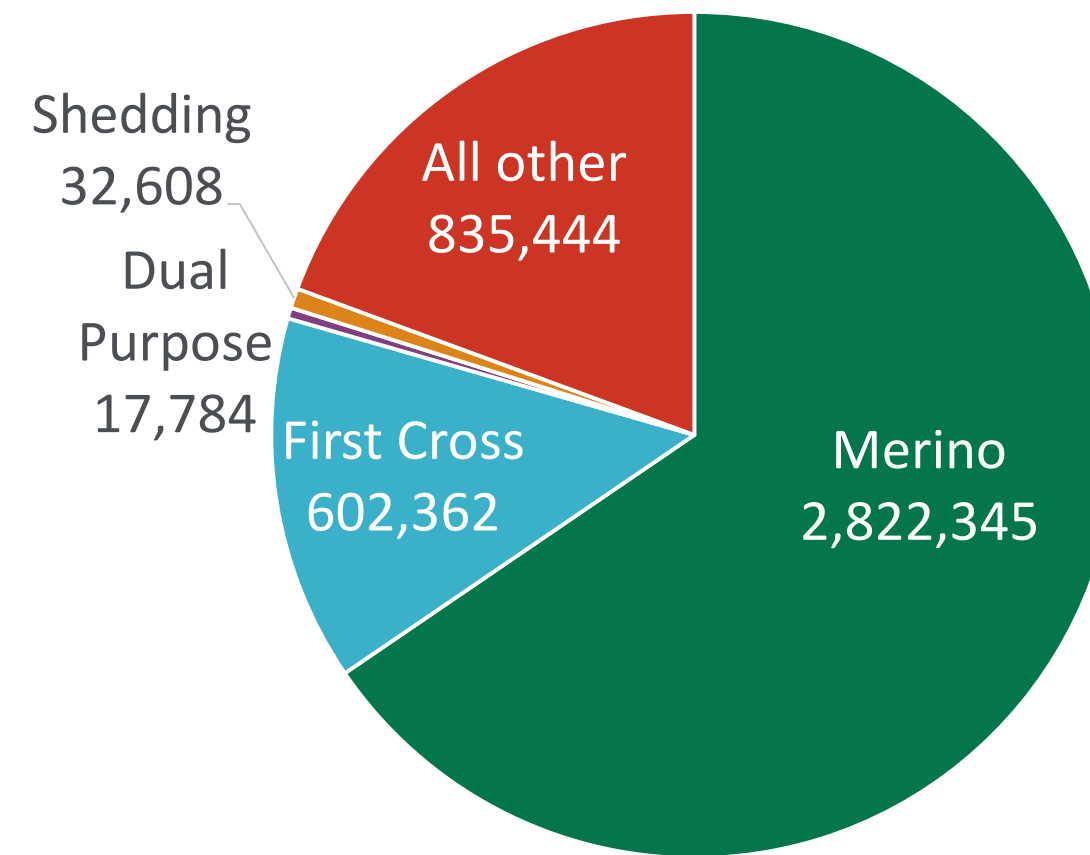
Breeding ewes on hand	4,668,494
Lambs on hand	1,750,930
Expected lamb sales in the next 4 months	680,453
Lambs marked in the past 4 months (1 Nov – 29 Feb)	897,046
Number of ewes joined to produce marked lambs	1,234,216

Central NSW

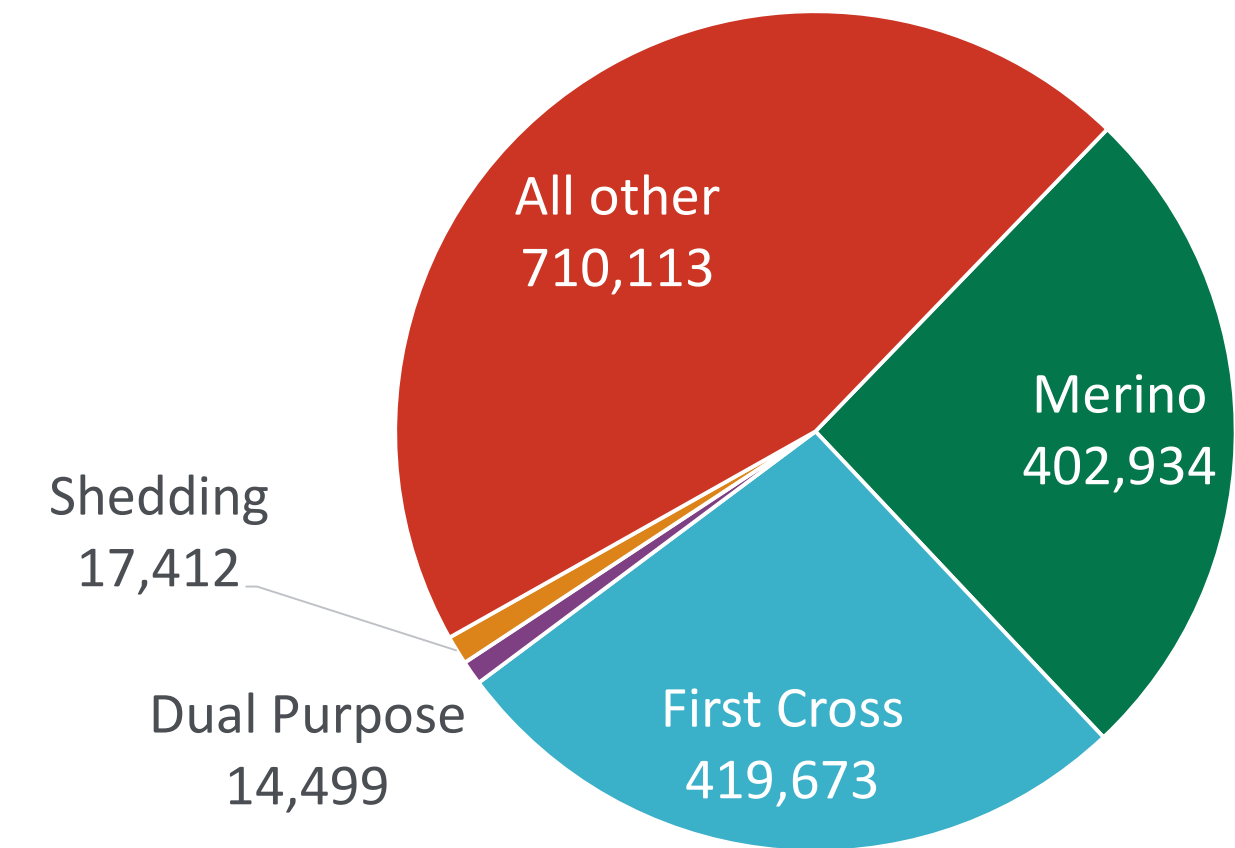
Breeding ewes on hand



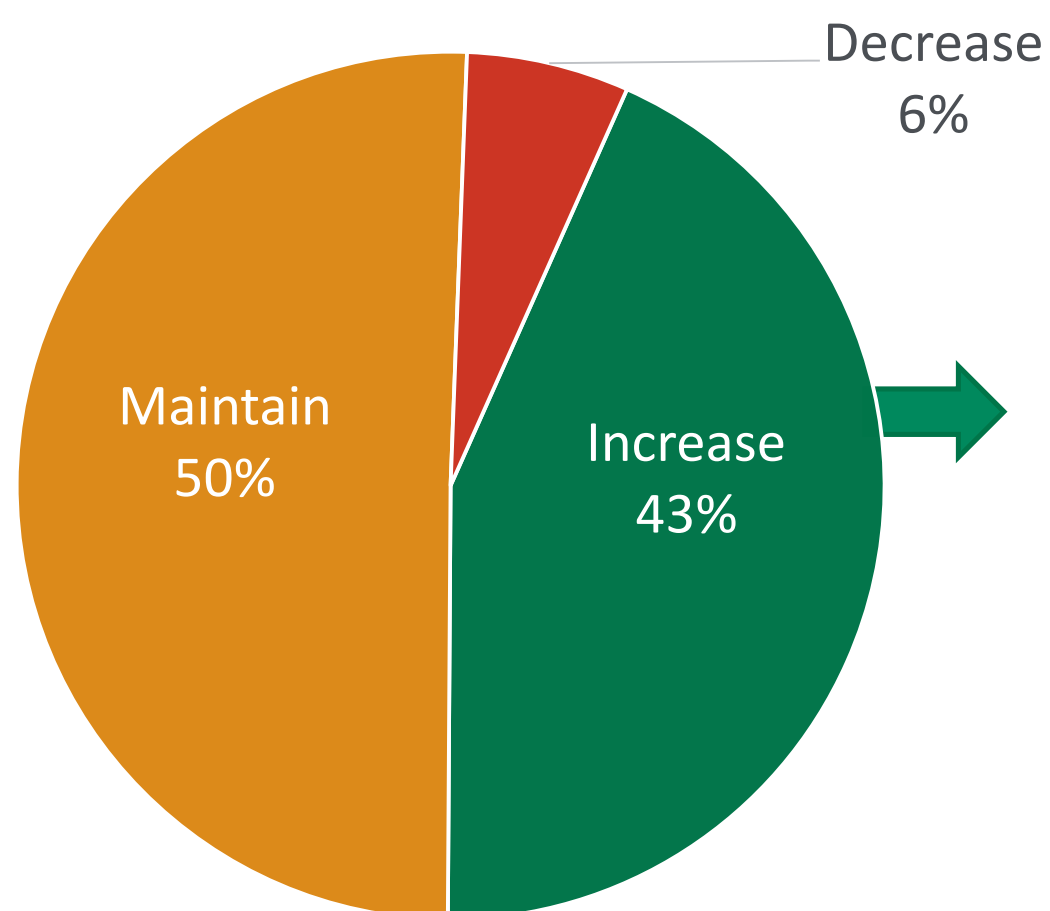
Lambs on hand



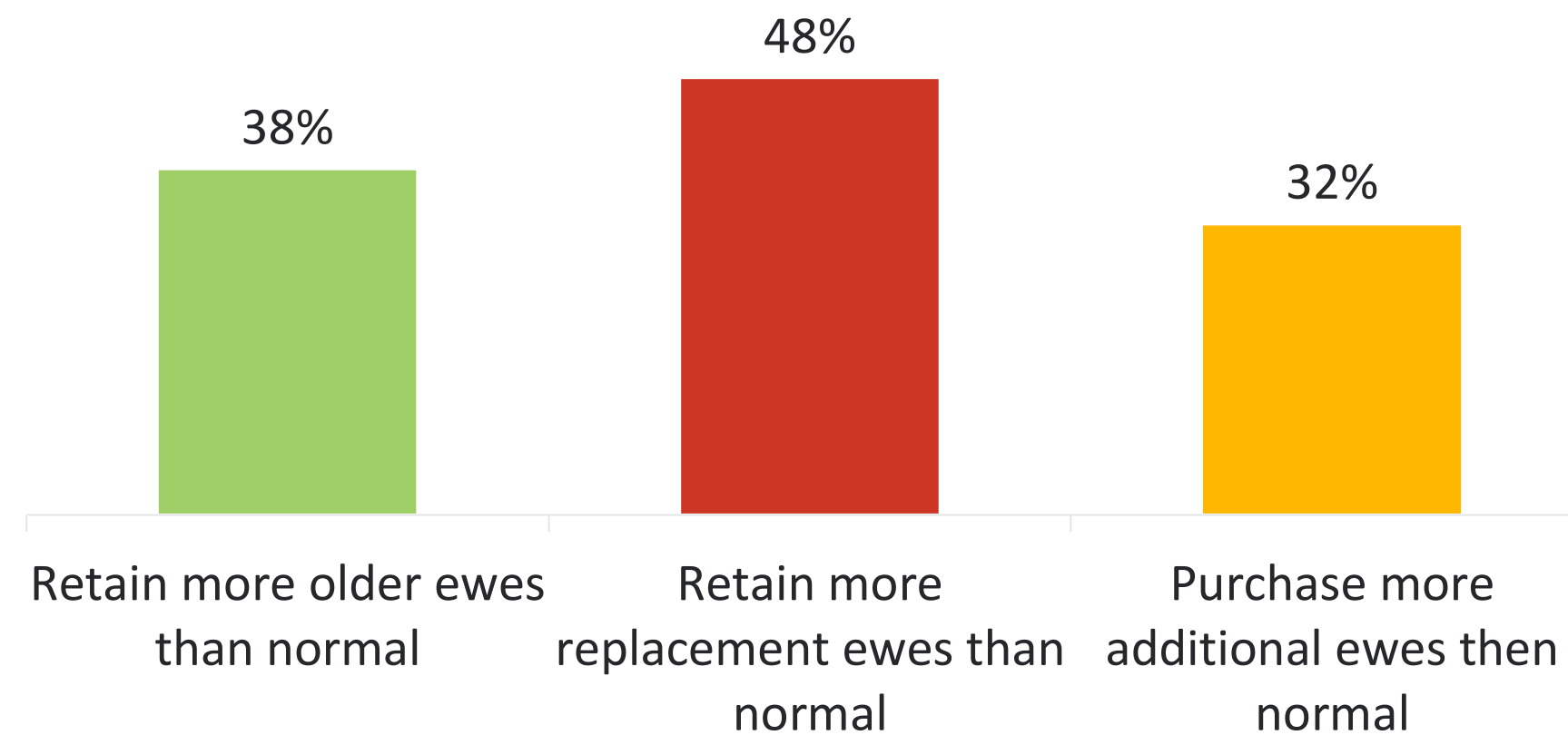
Lamb sales in next 4 months



Ewe Flock intentions



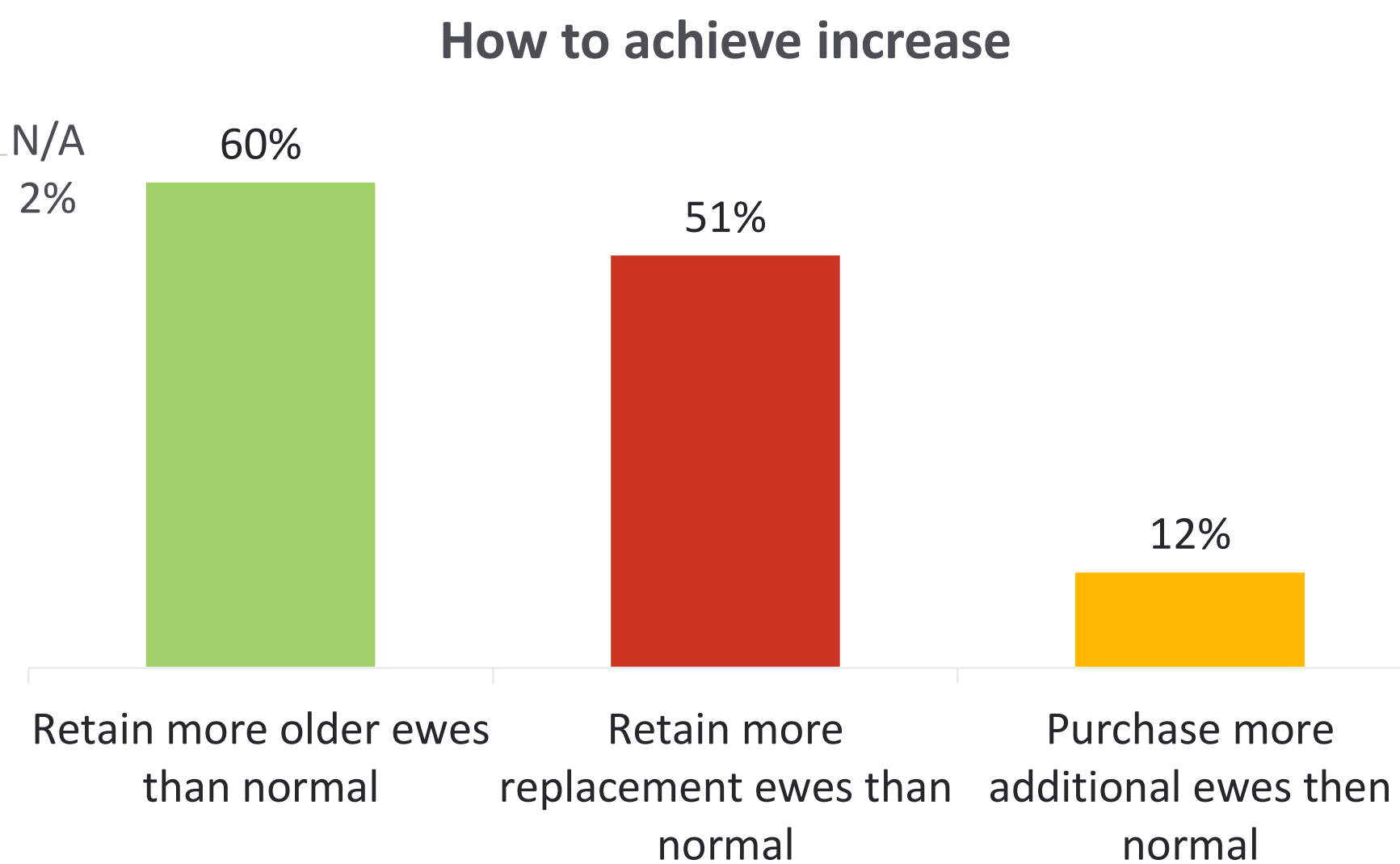
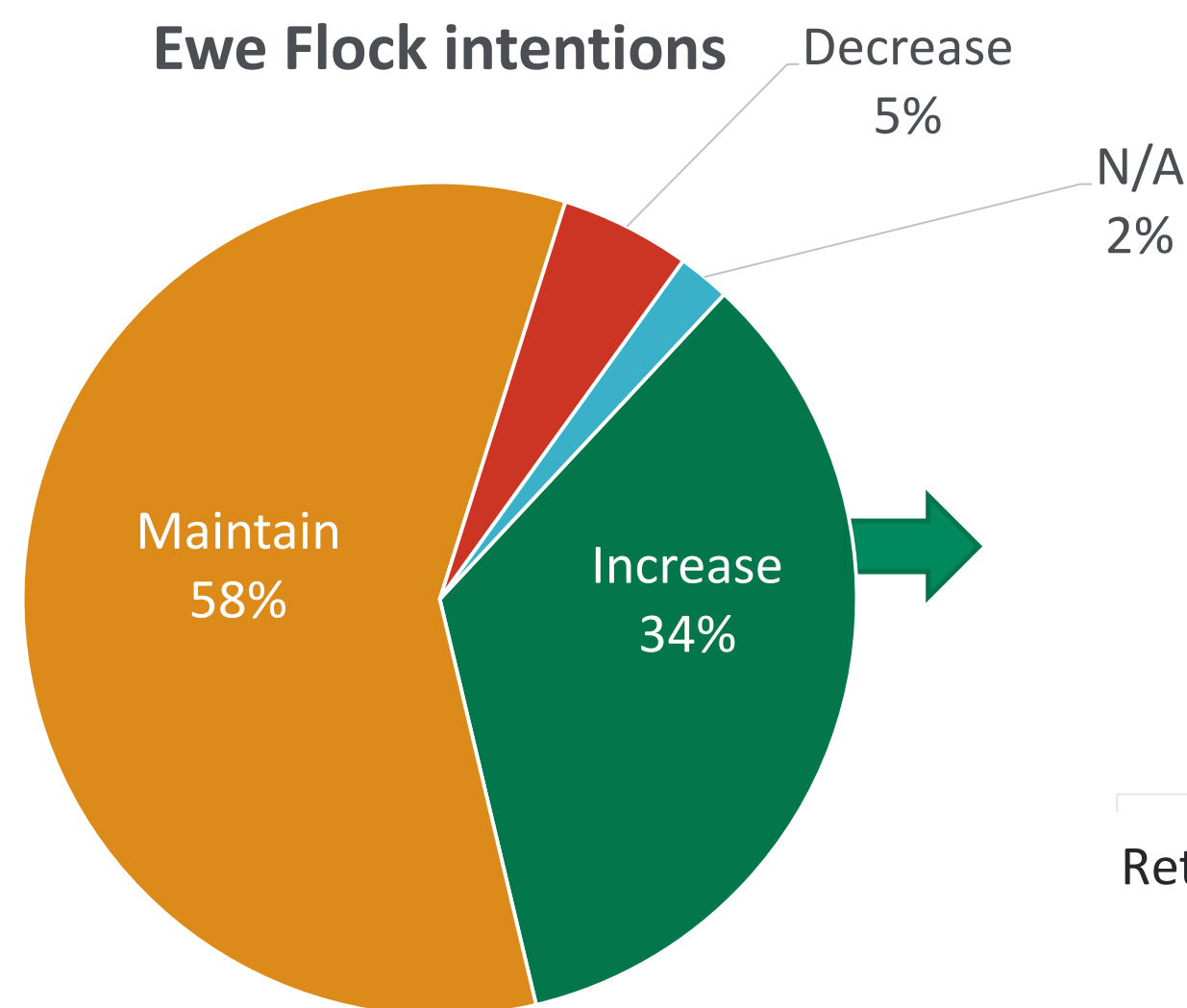
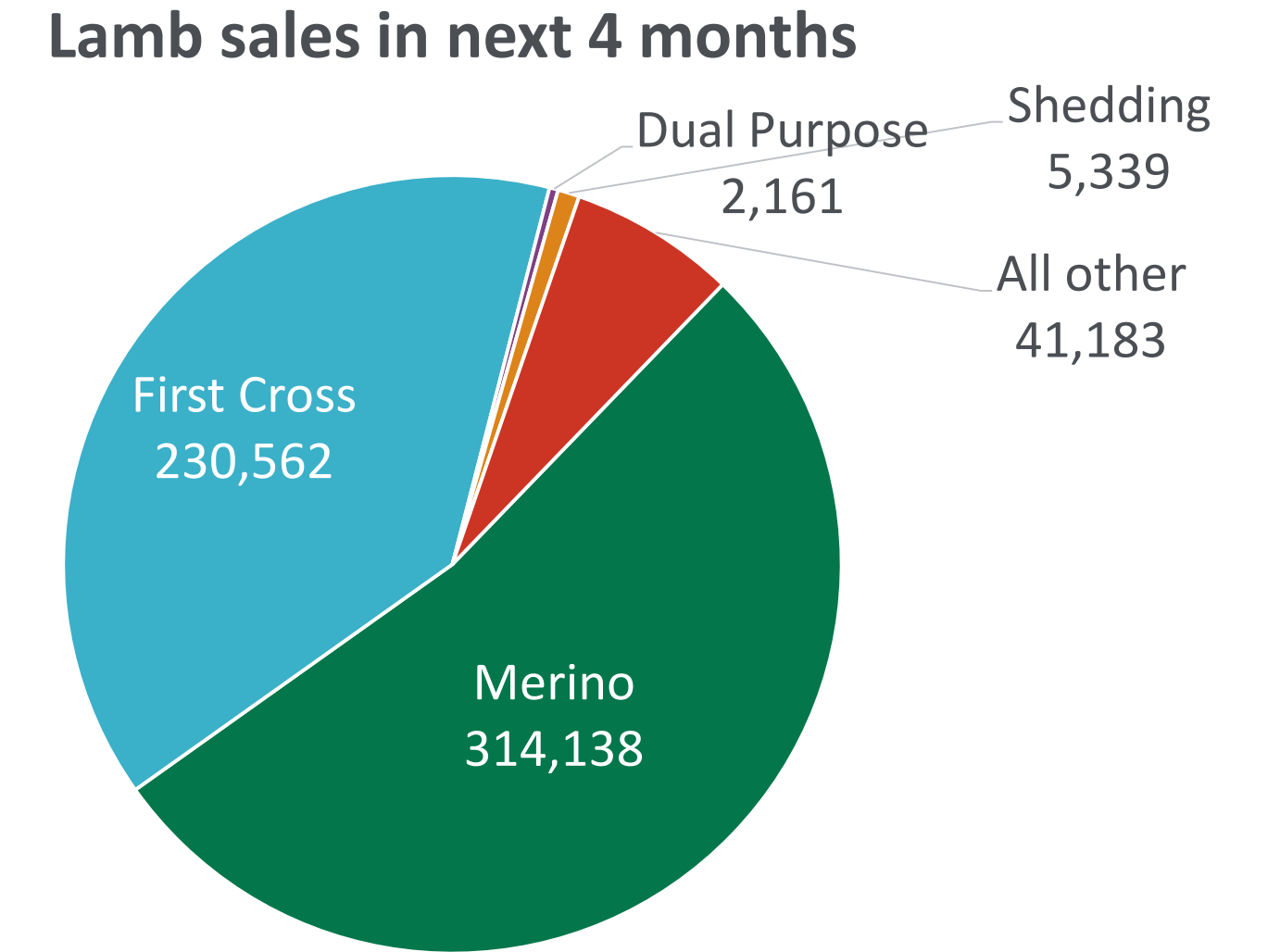
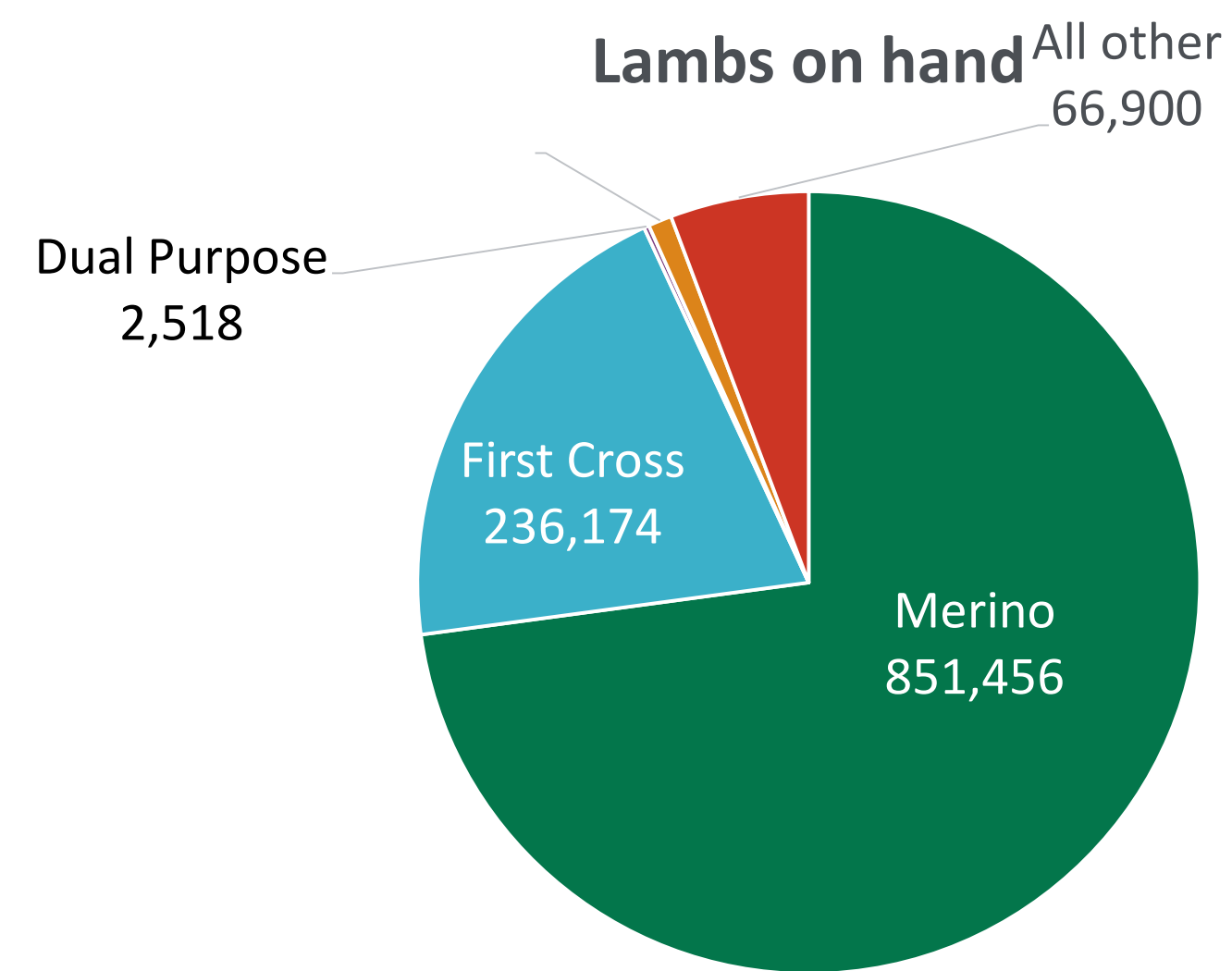
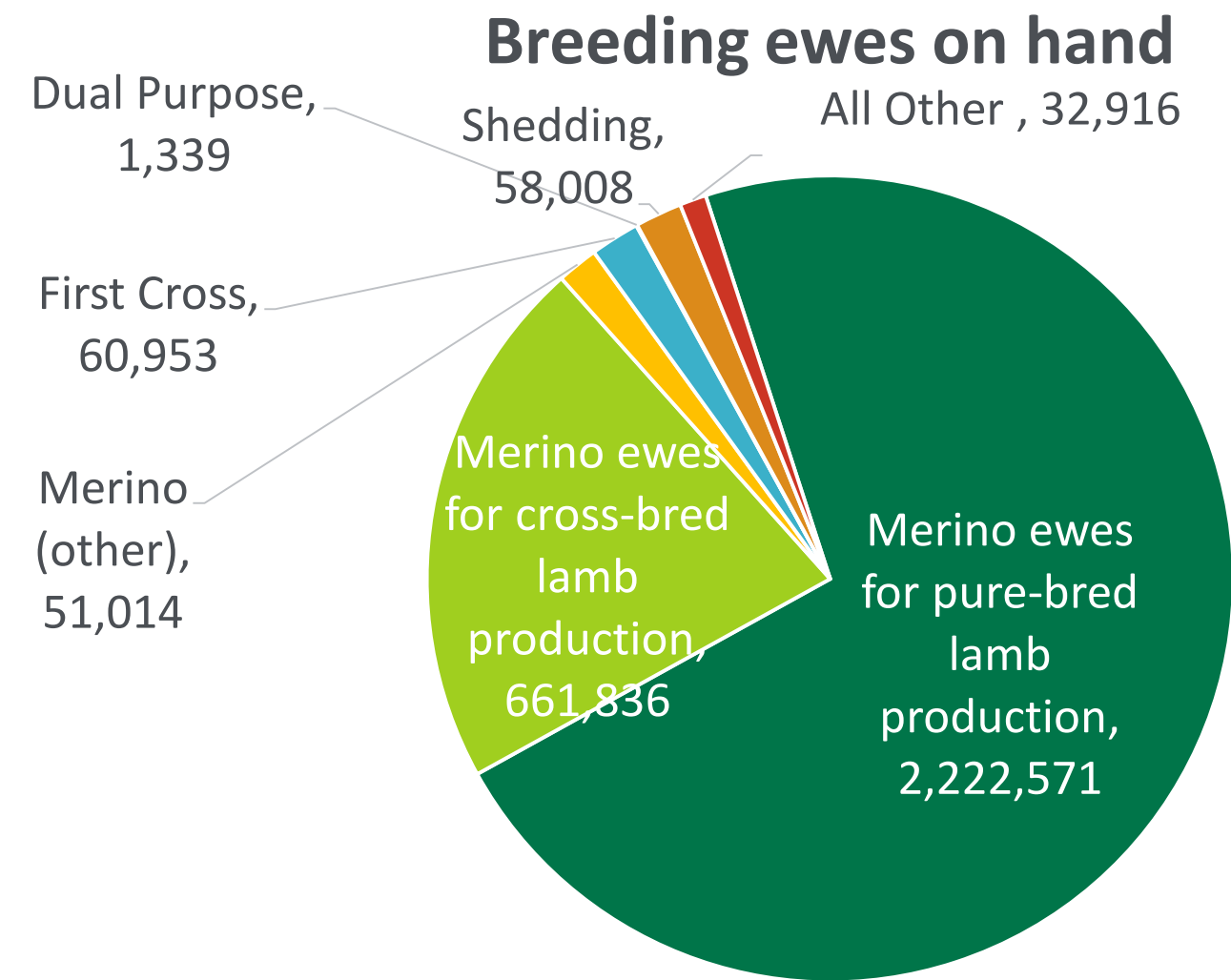
How to achieve increase



Totals

Breeding ewes on hand	11,316,400
Lambs on hand	4,310,543
Expected lamb sales in the next 4 months	1,564,631
Lambs marked in the past 4 months (1 Nov – 29 Feb)	389,598
Number of ewes joined to produce marked lambs	469,754

SA Peninsula

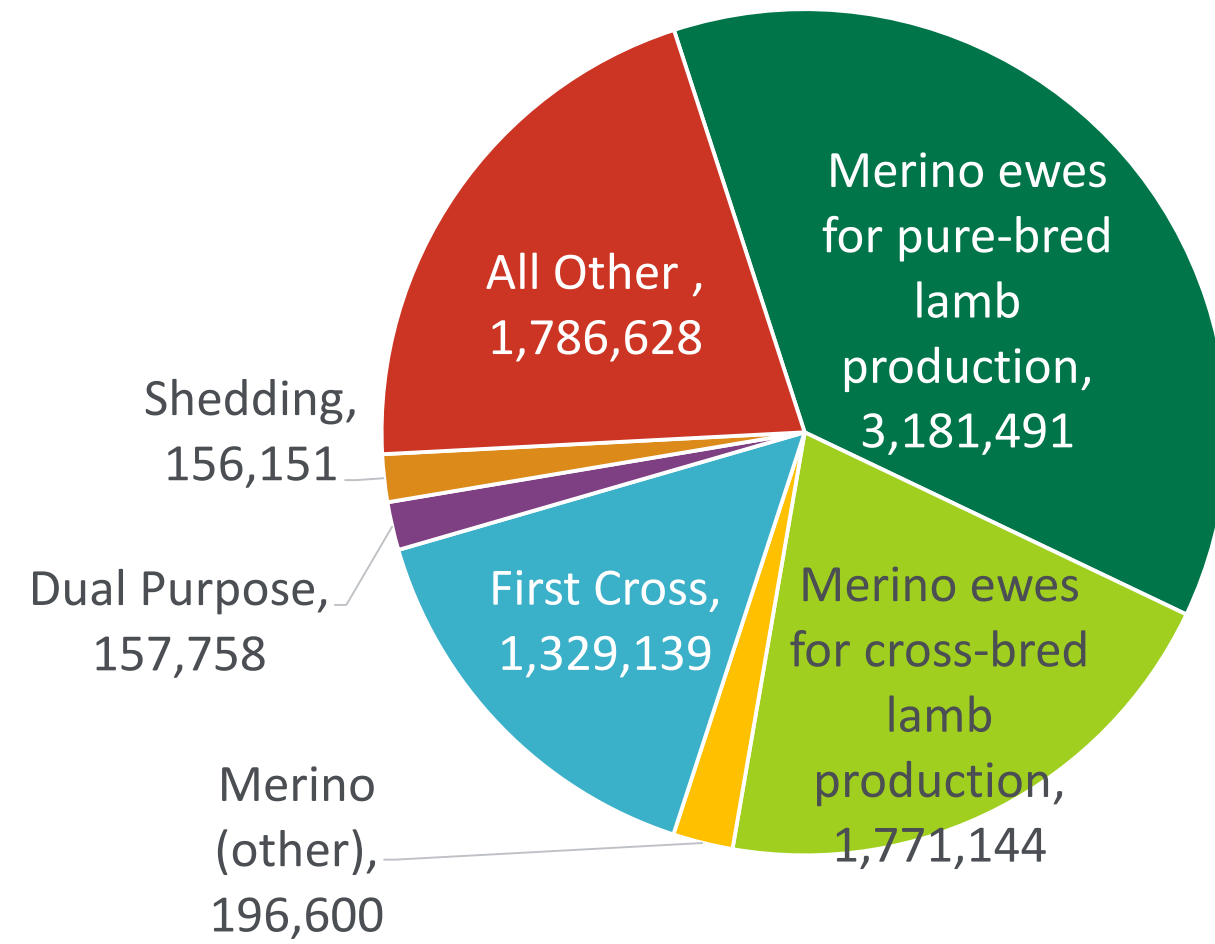


Totals

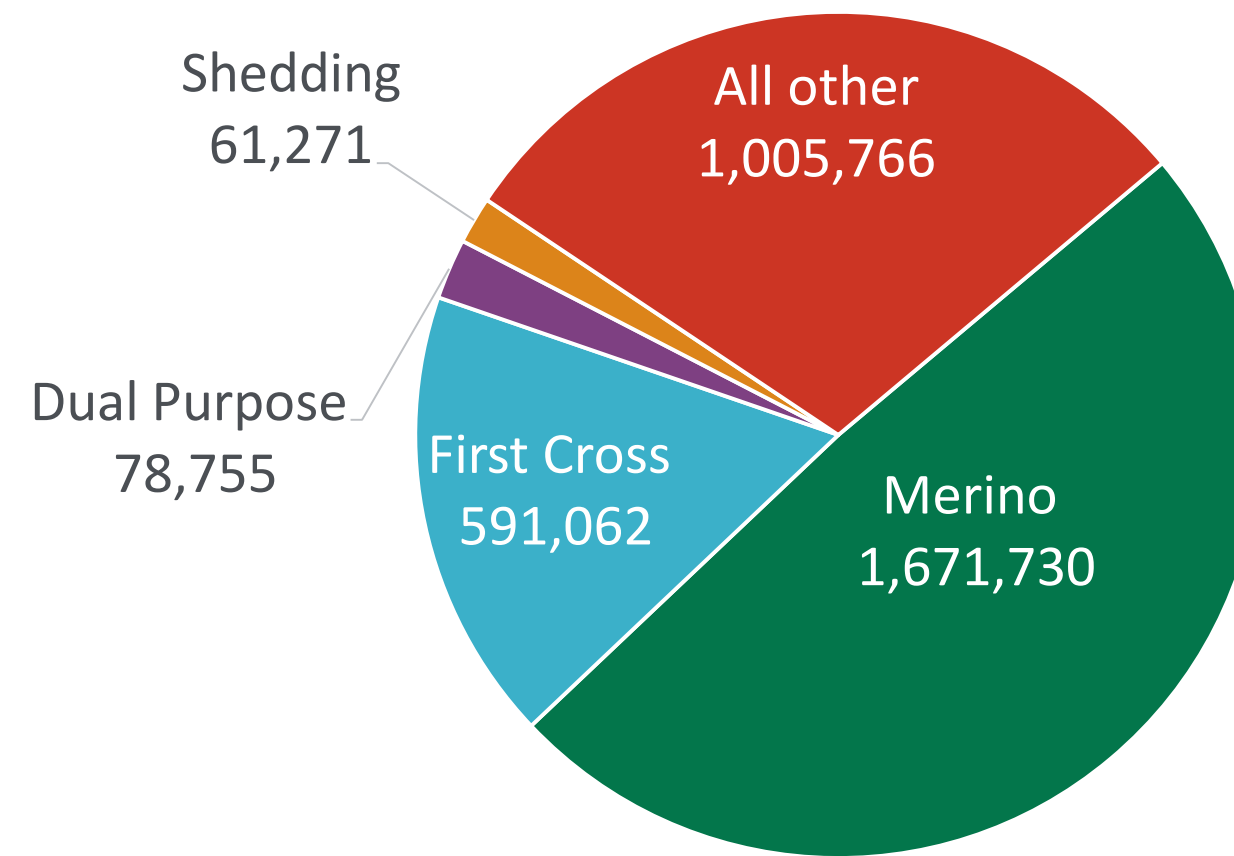
Breeding ewes on hand	3,088,636
Lambs on hand	1,168,416
Expected lamb sales in the next 4 months	593,383
Lambs marked in the past 4 months (1 Nov – 29 Feb)	295,232
Number of ewes joined to produce marked lambs	527,926

Wimmera Mallee Murray

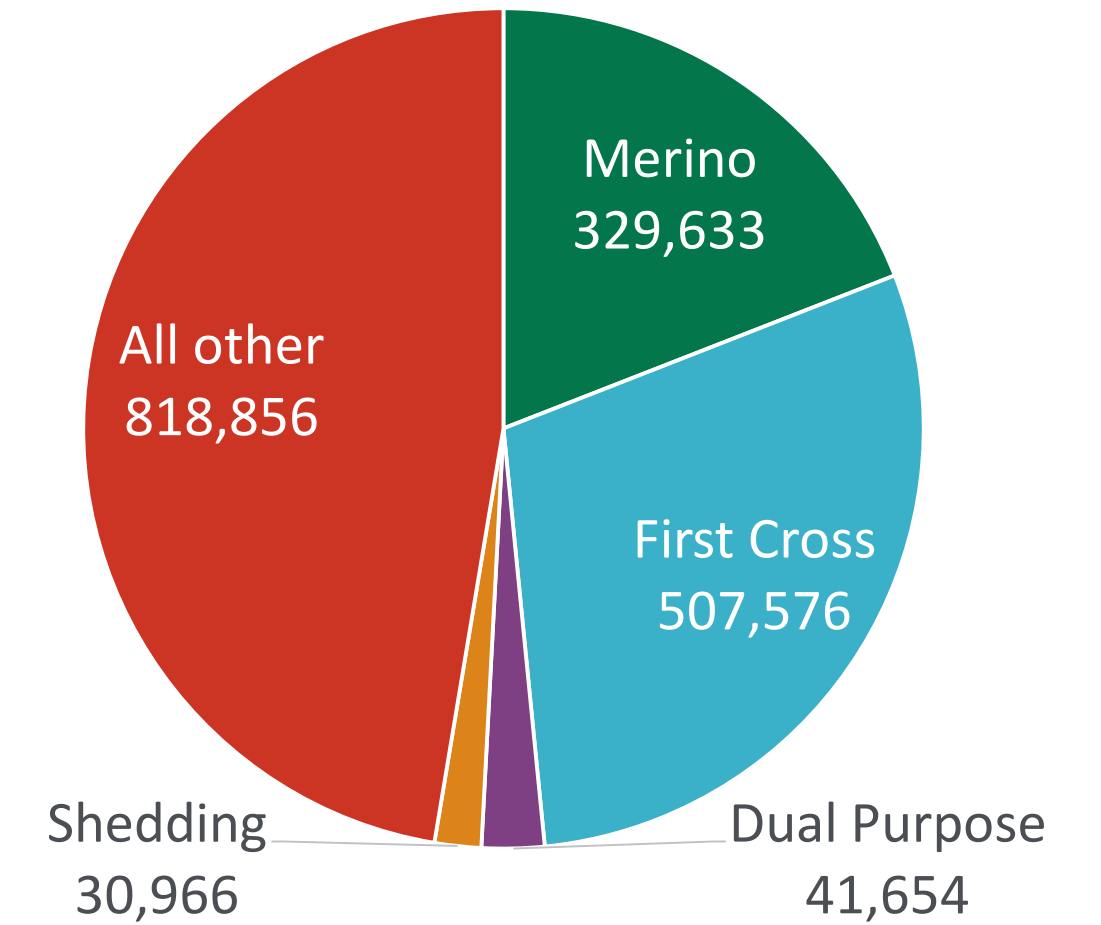
Breeding ewes on hand



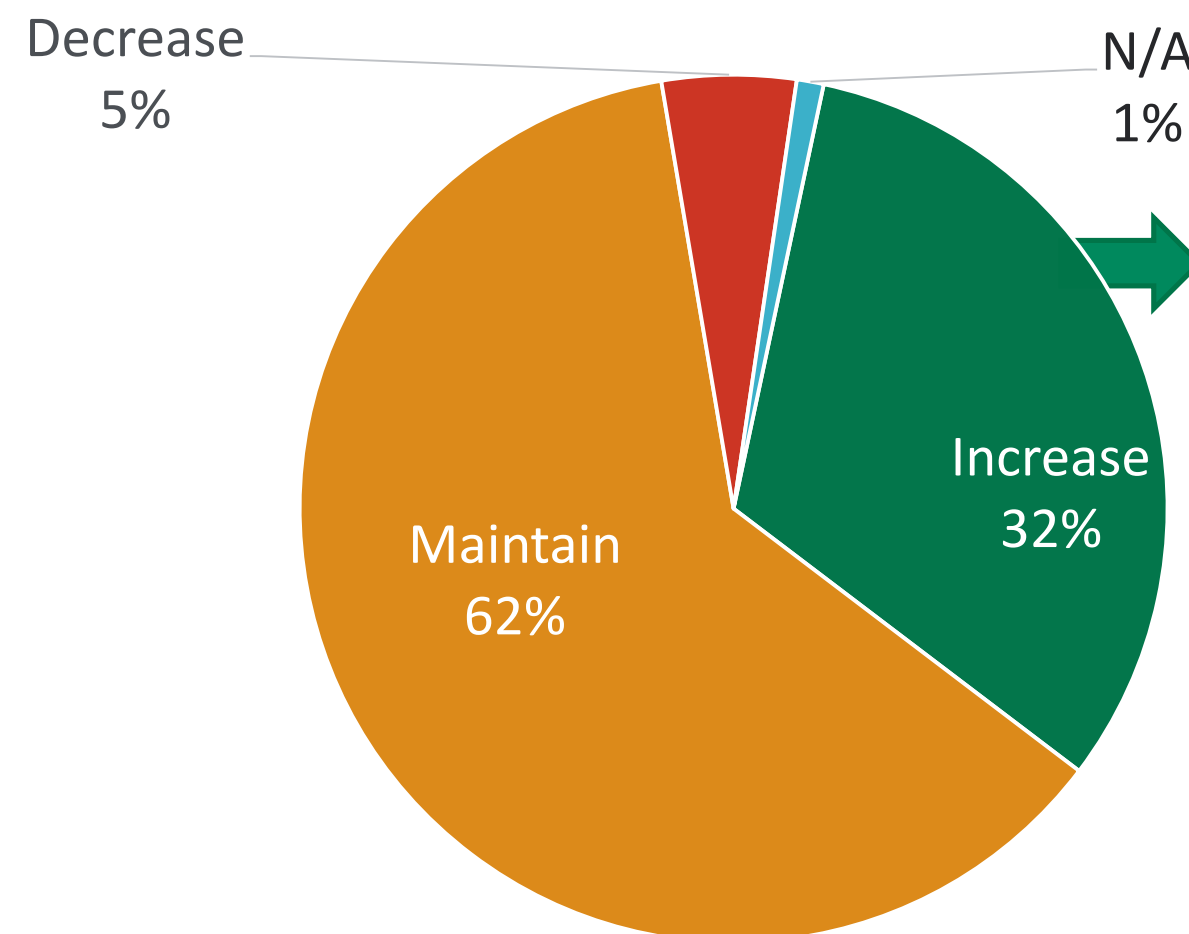
Lambs on hand



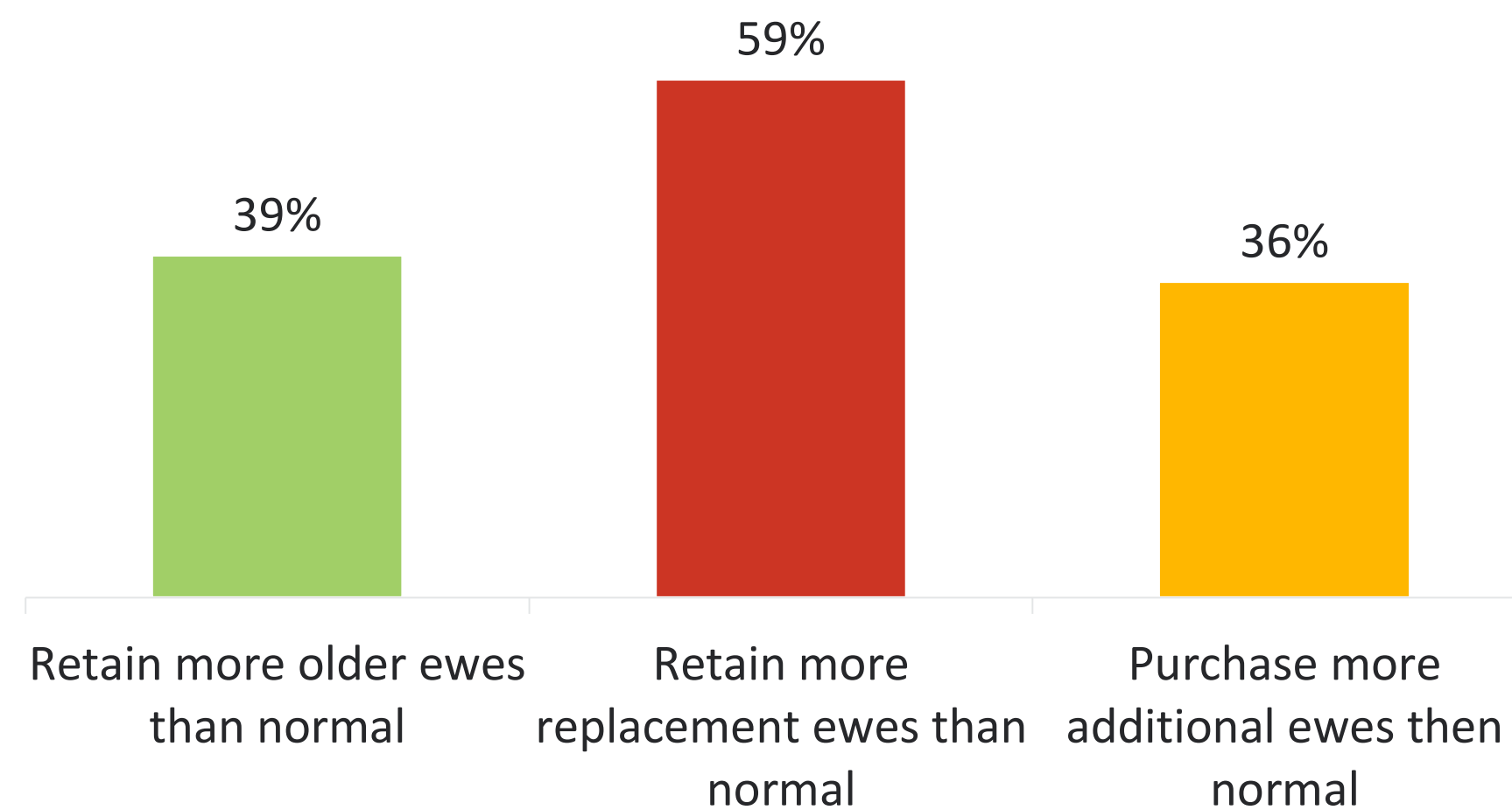
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase

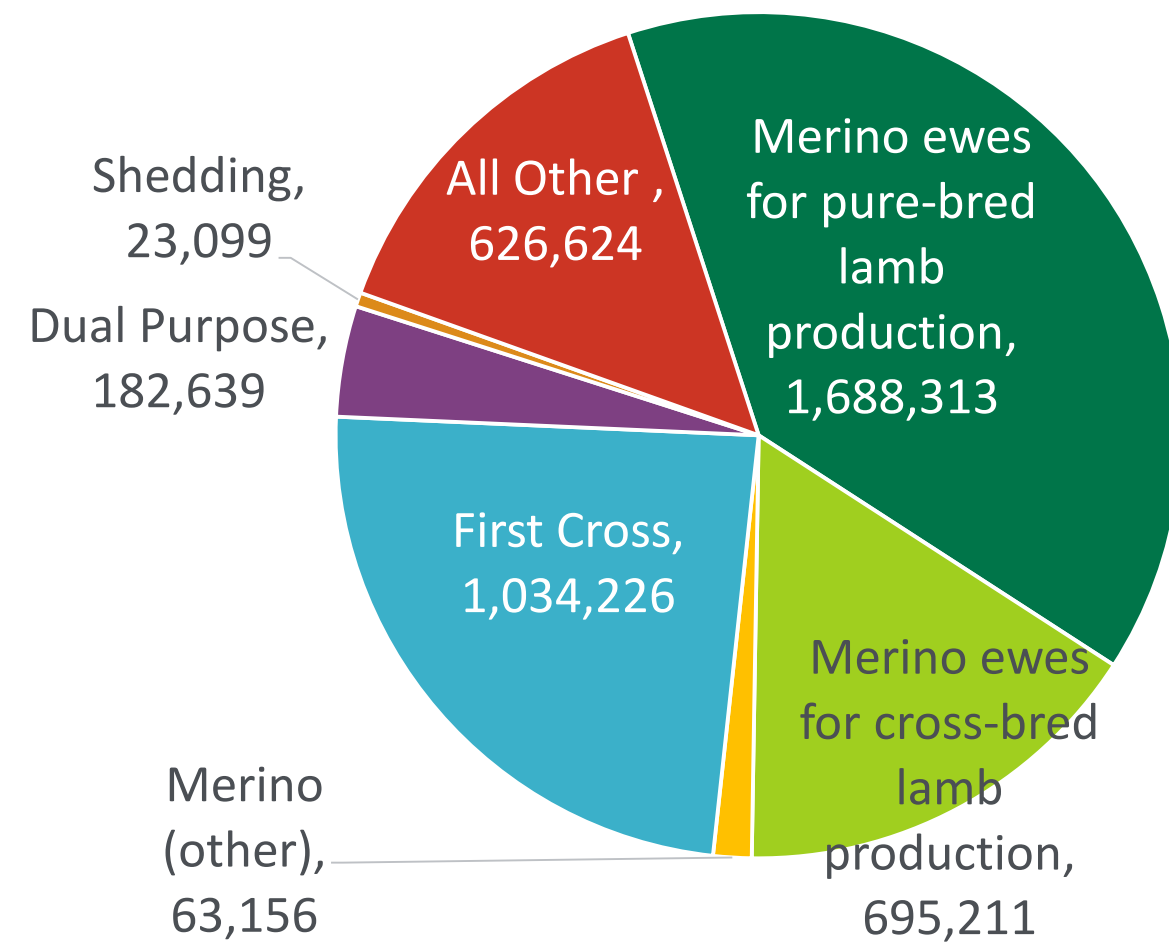


Totals

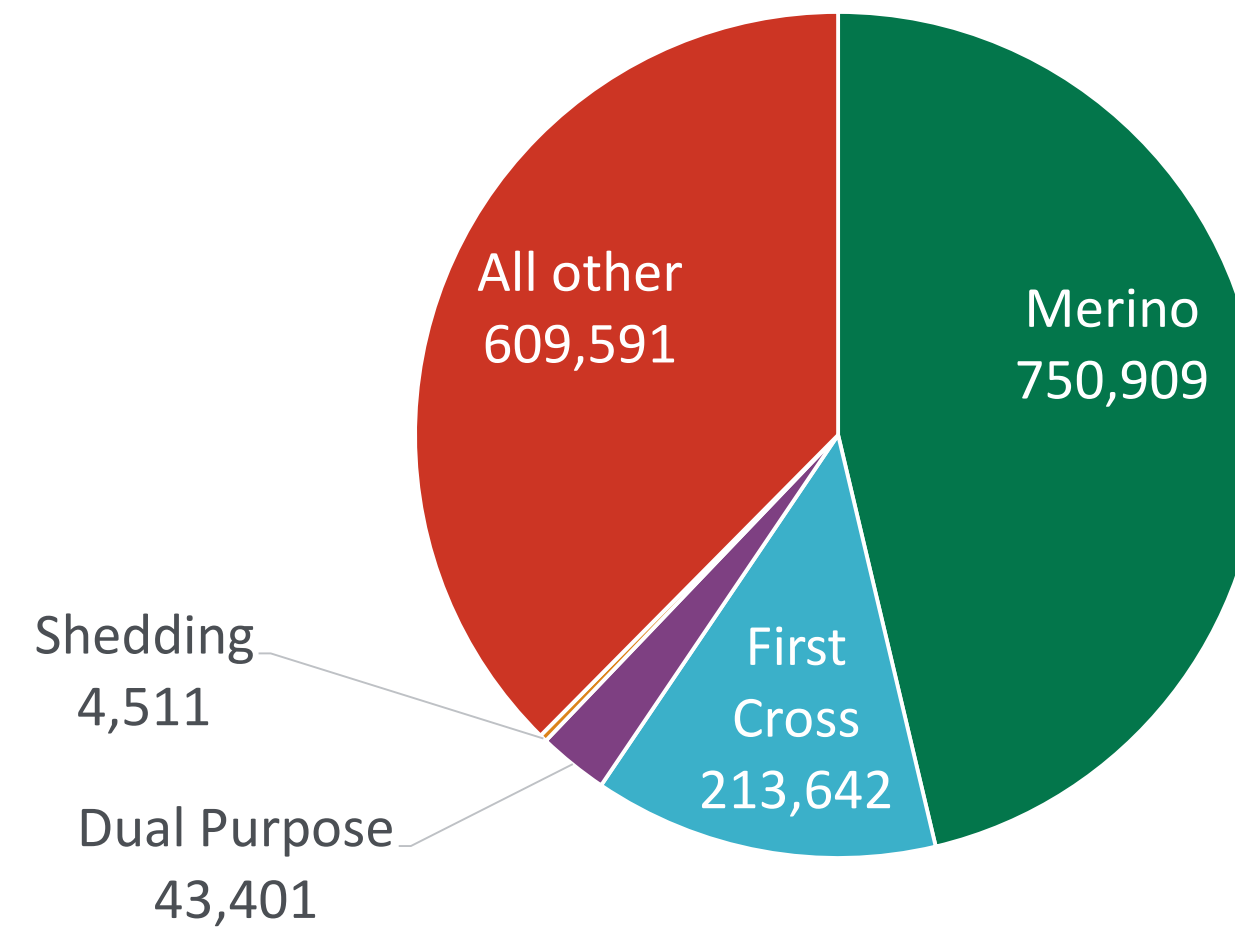
Breeding ewes on hand	8,578,912
Lambs on hand	3,408,584
Expected lamb sales in the next 4 months	1,728,685
Lambs marked in the past 4 months (1 Nov – 29 Feb)	332,593
Number of ewes joined to produce marked lambs	459,241

East Victoria

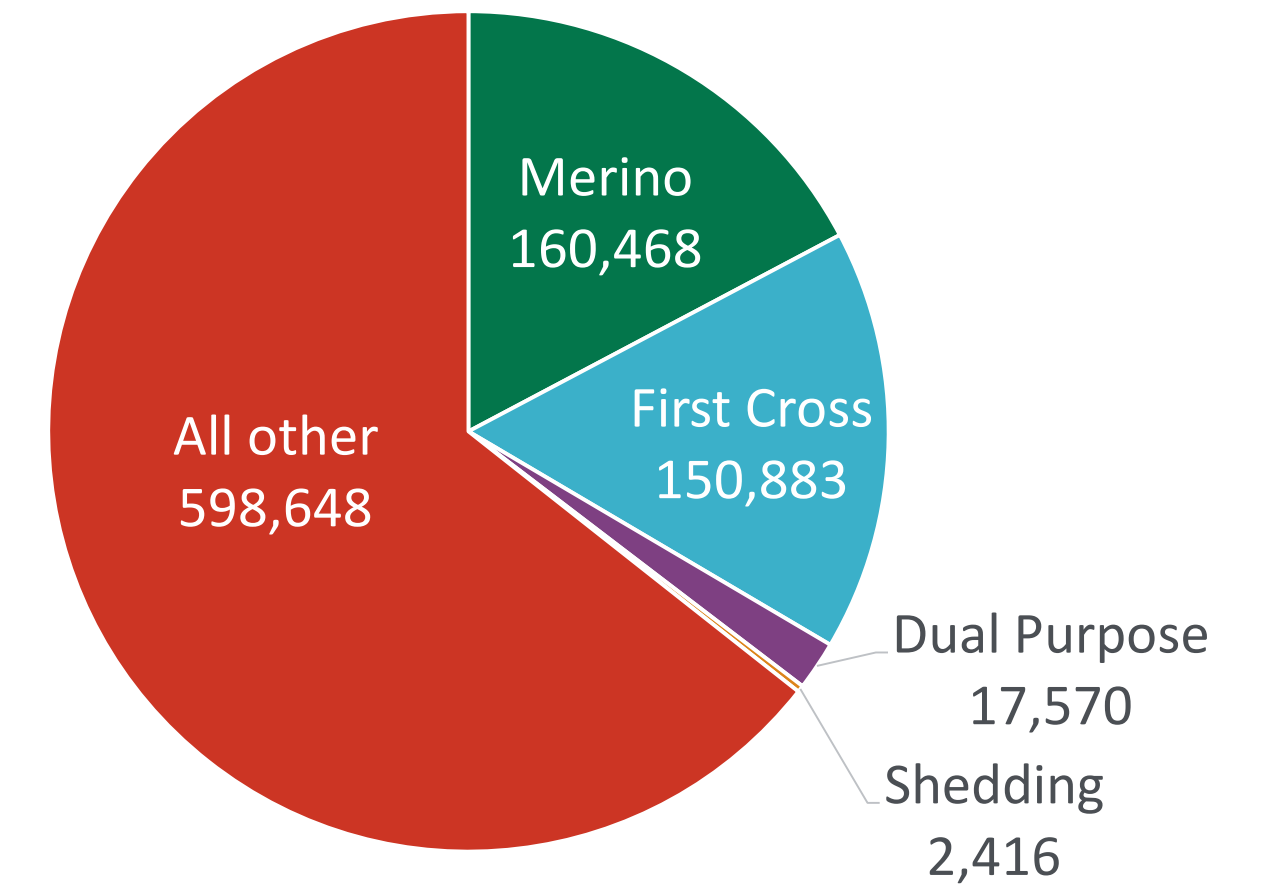
Breeding ewes on hand



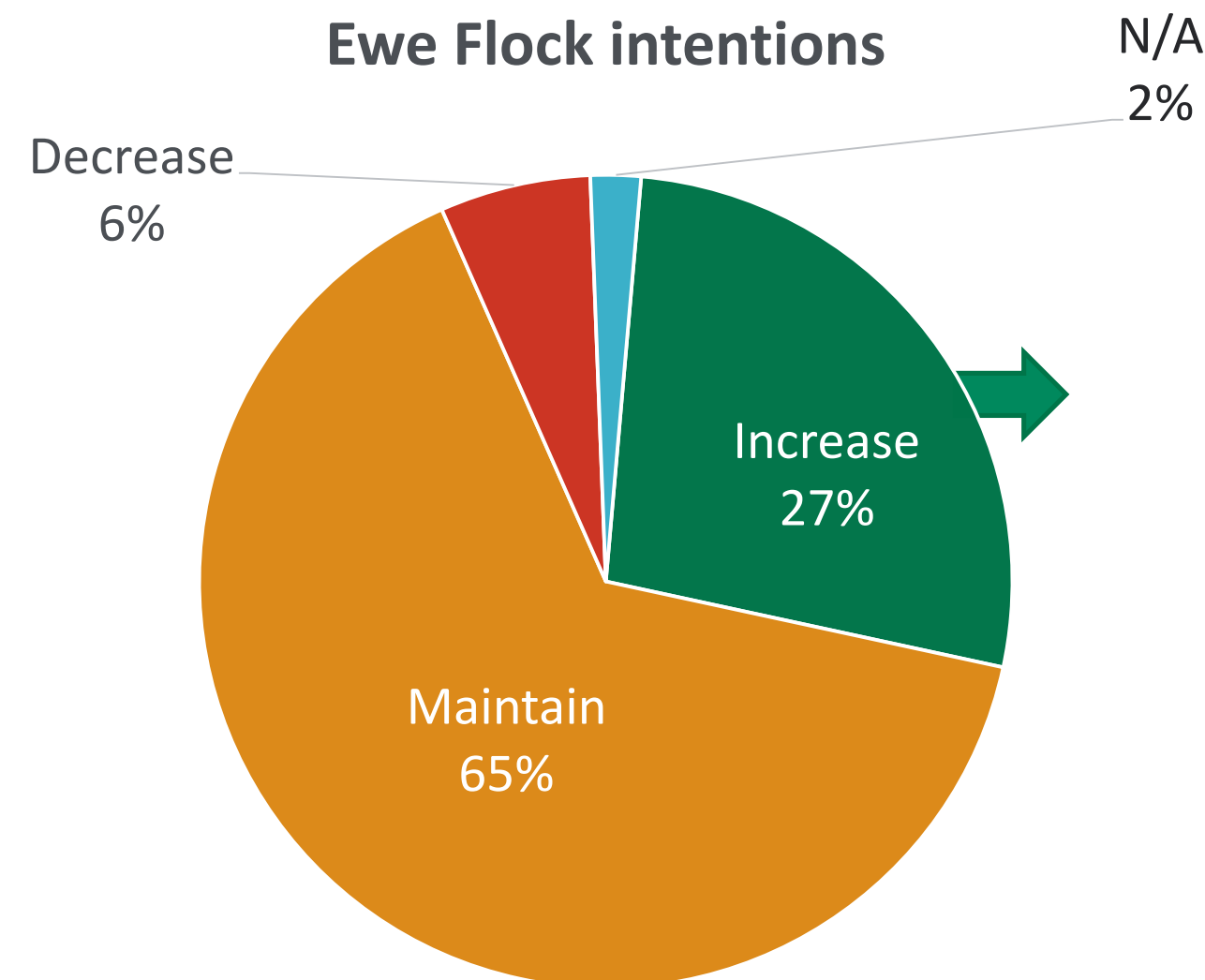
Lambs on hand



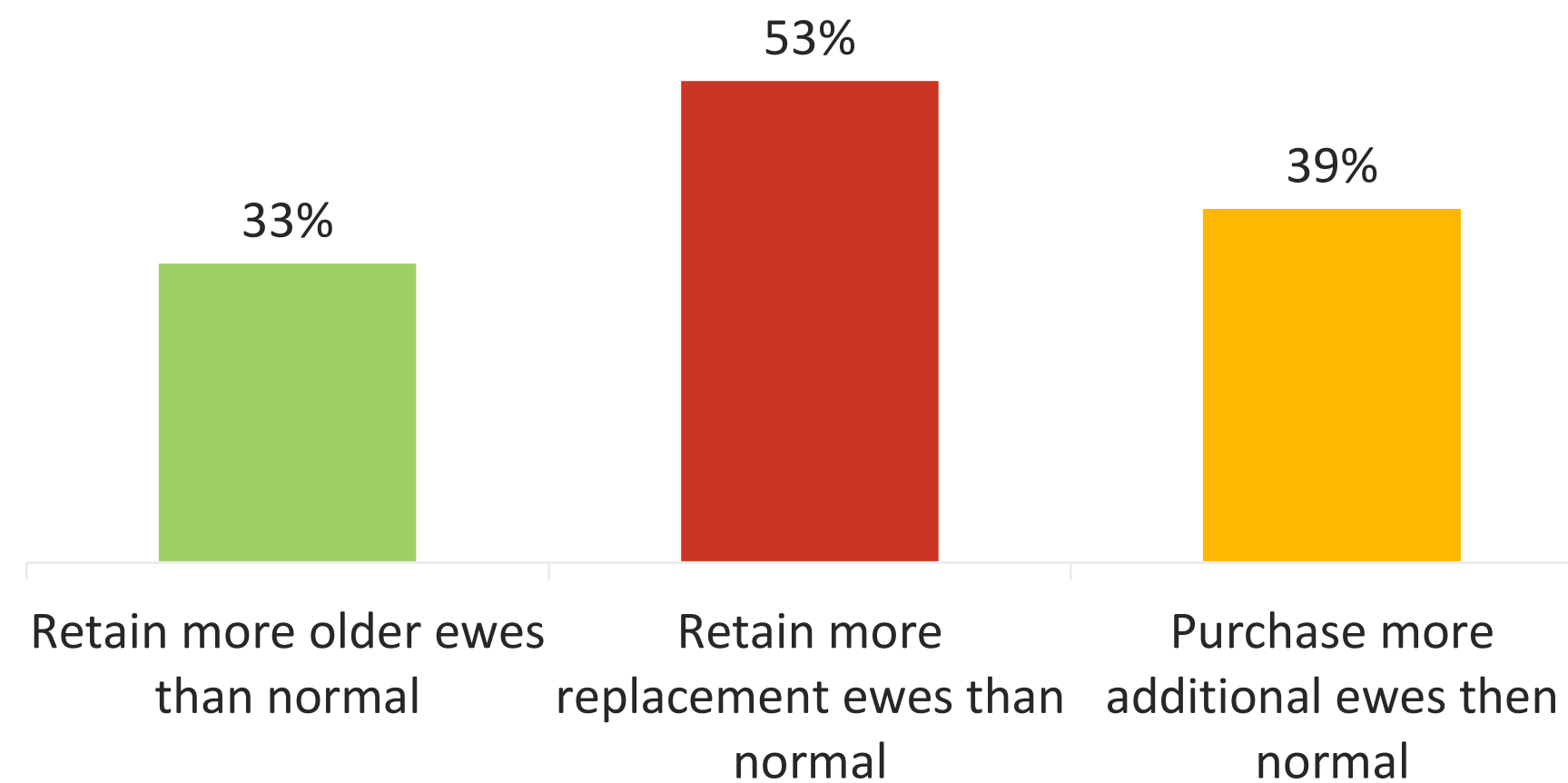
Lamb sales in next 4 months



Ewe Flock intentions



How to achieve increase

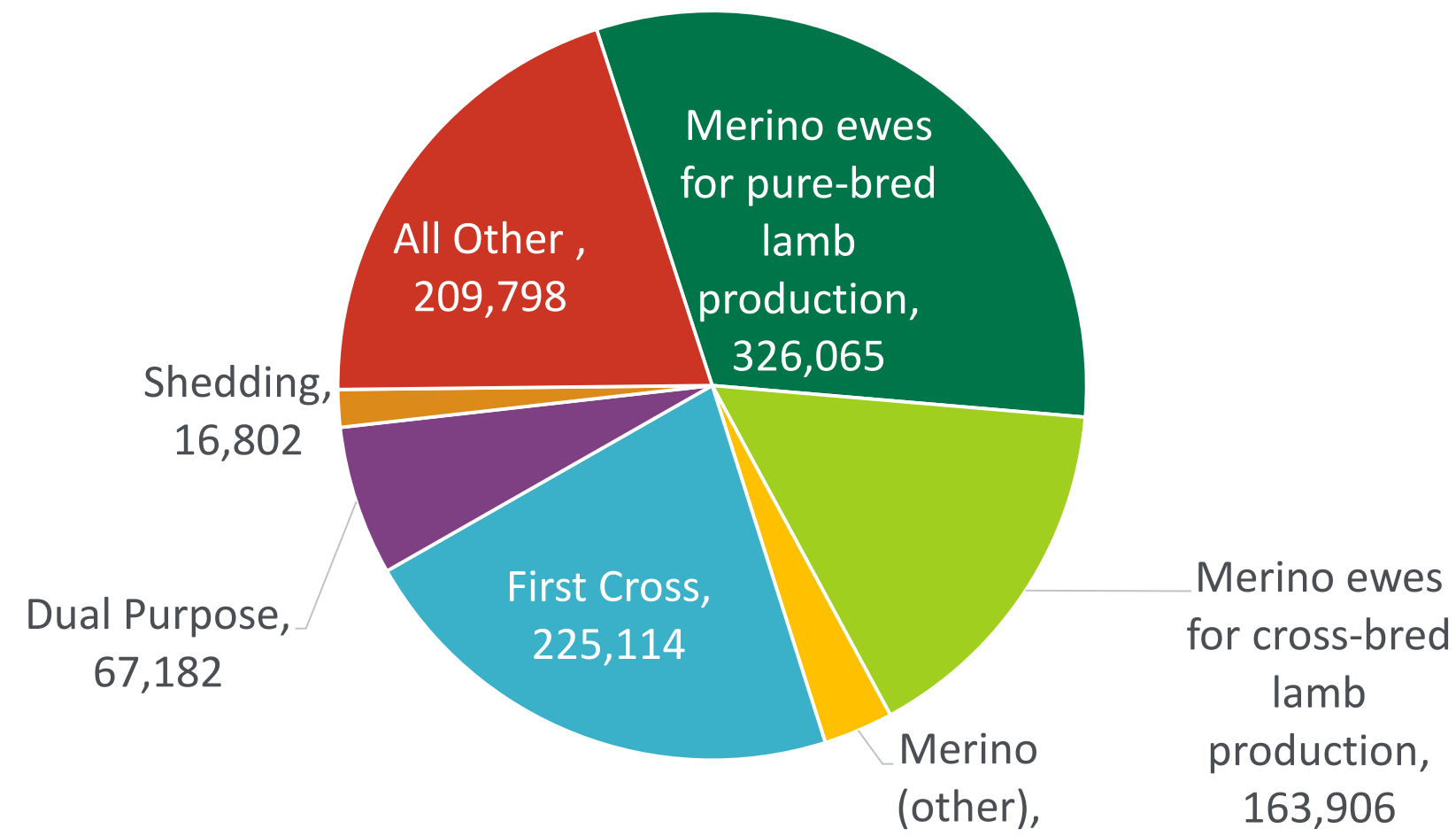


Totals

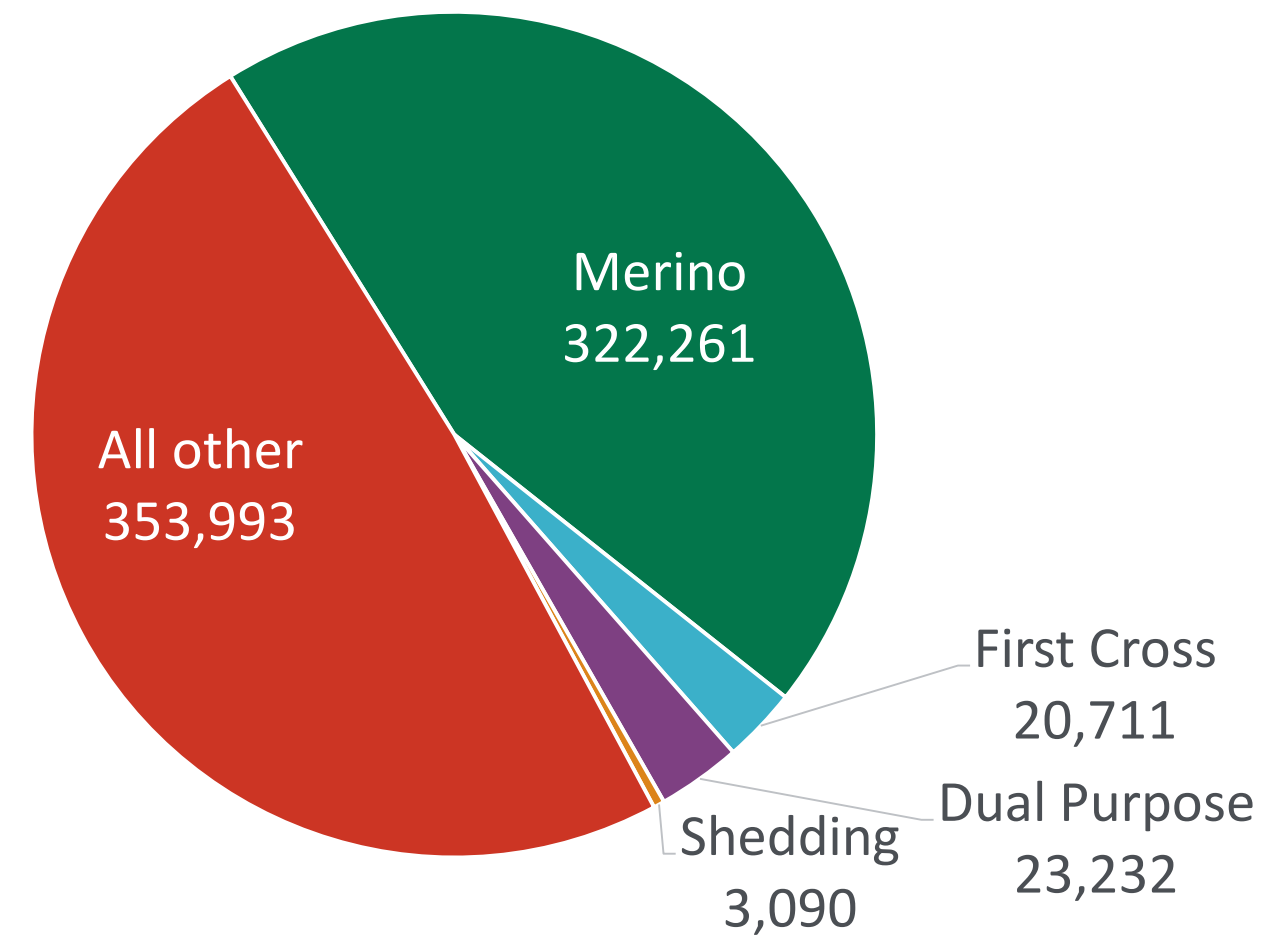
Breeding ewes on hand	4,313,269
Lambs on hand	1,622,055
Expected lamb sales in the next 4 months	929,986
Lambs marked in the past 4 months (1 Nov – 29 Feb)	264,743
Number of ewes joined to produce marked lambs	301,649

Tasmania

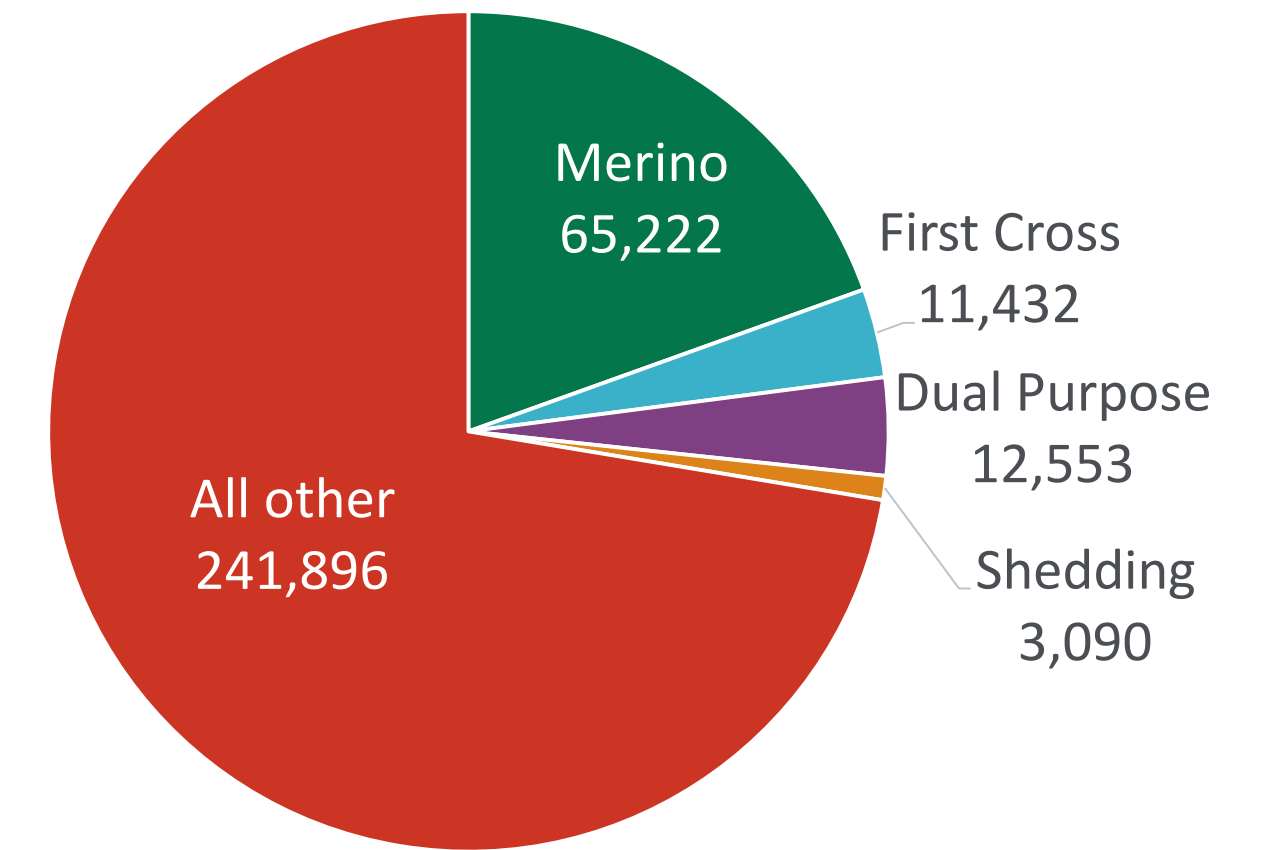
Breeding ewes on hand



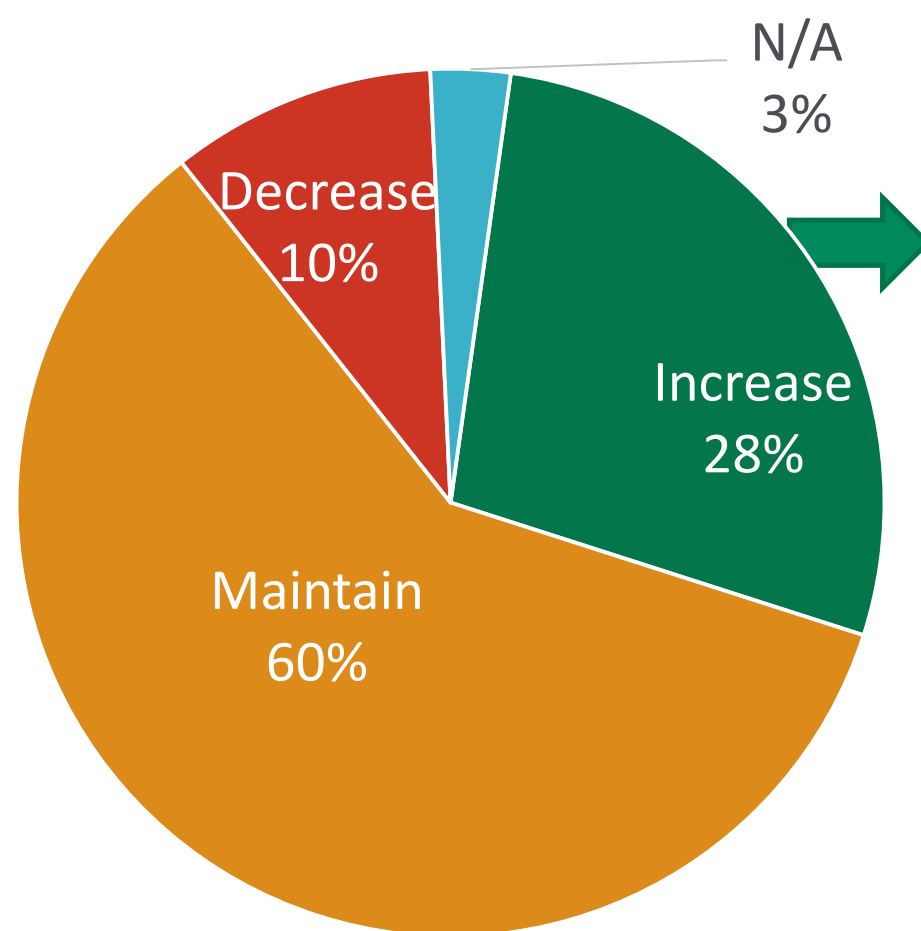
Lambs on hand



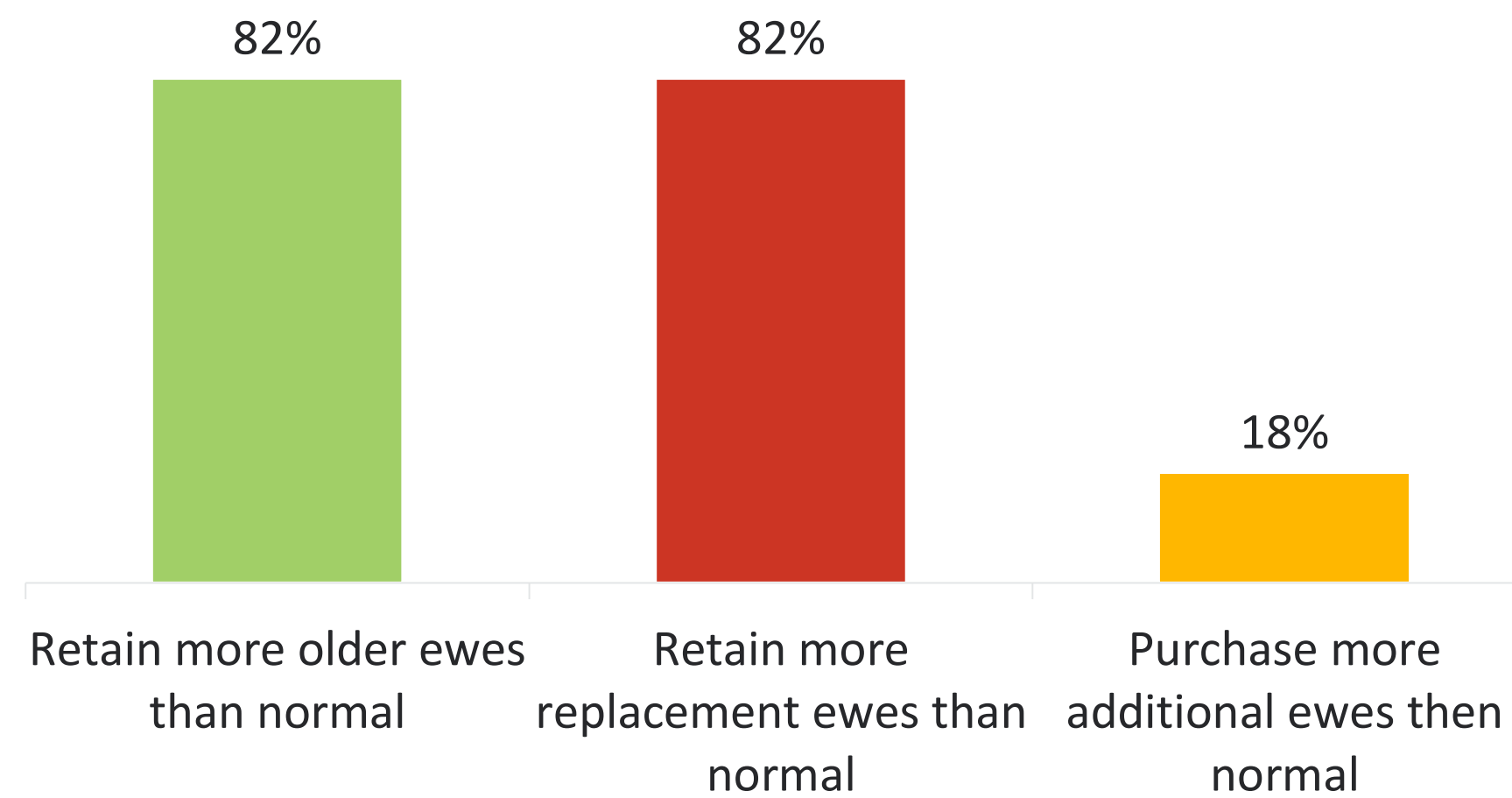
Lamb sales in next 4 months



Ewe Flock intentions



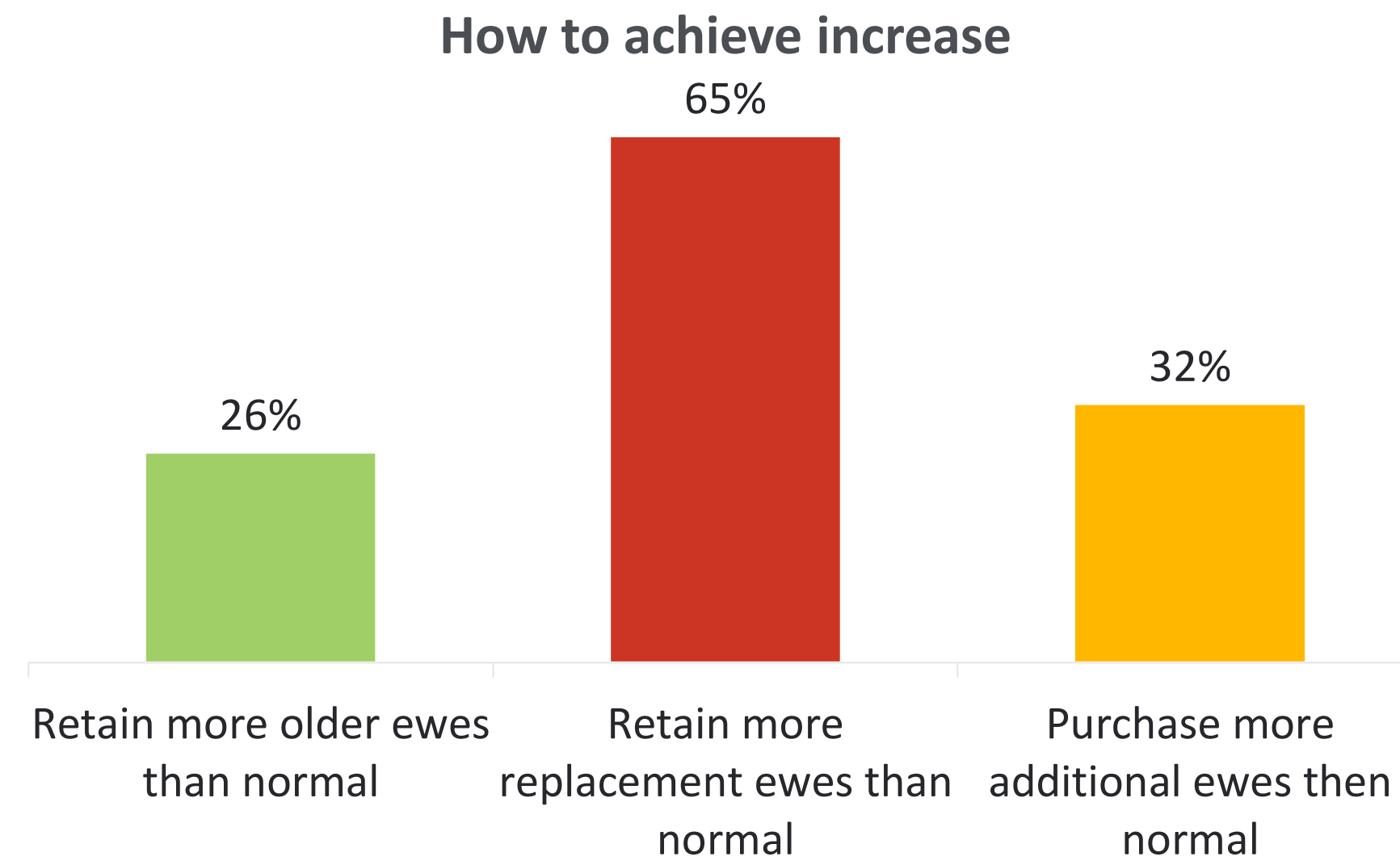
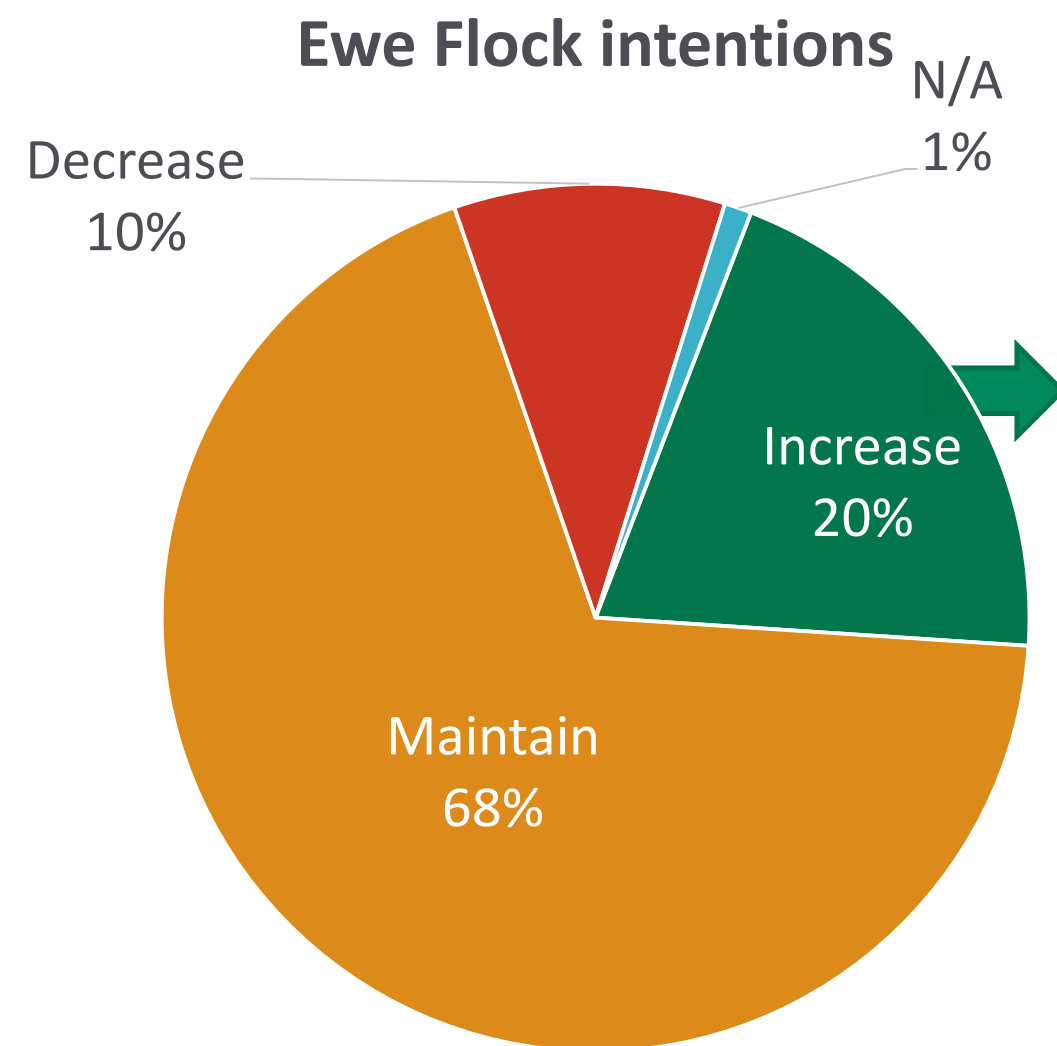
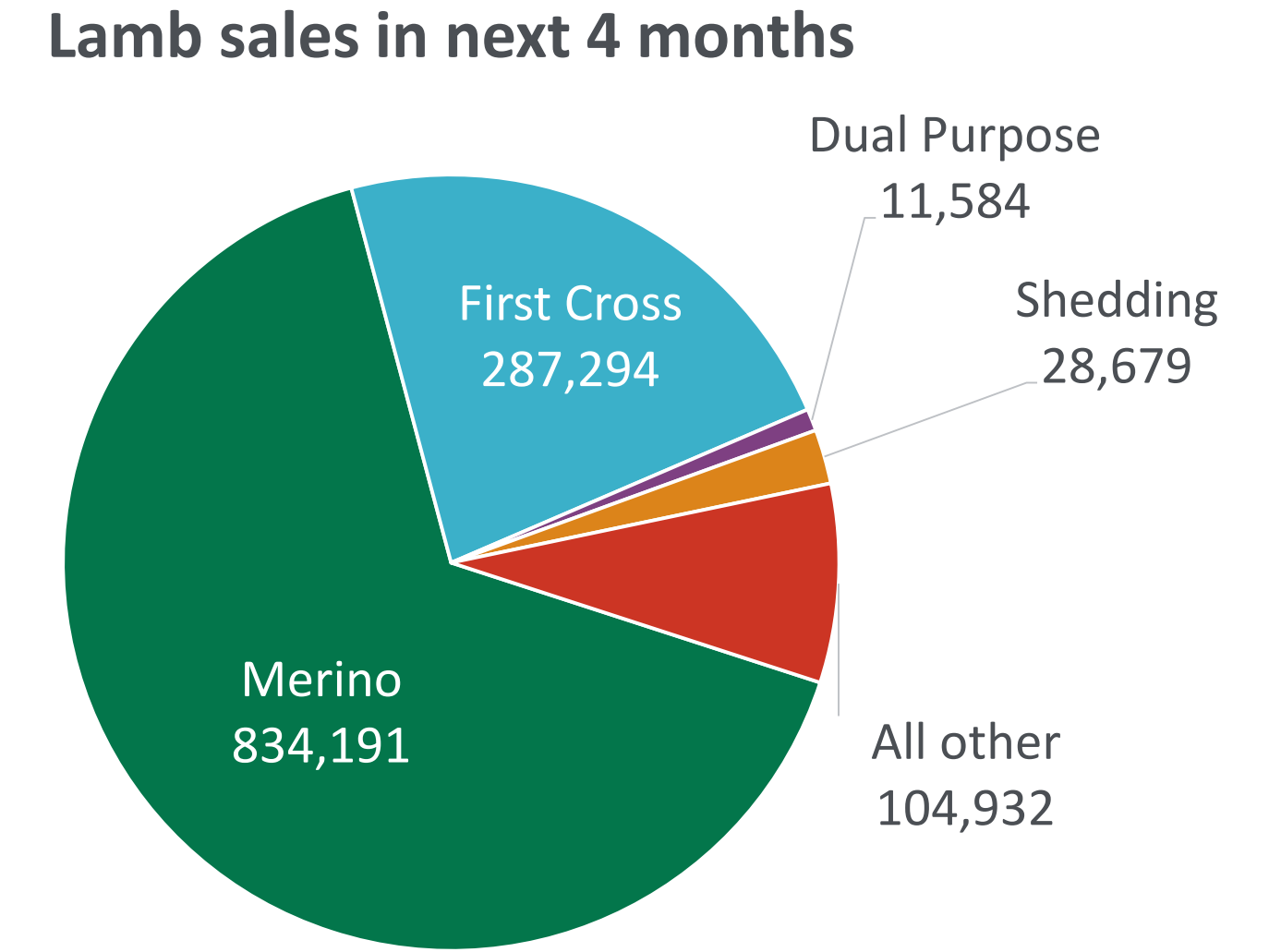
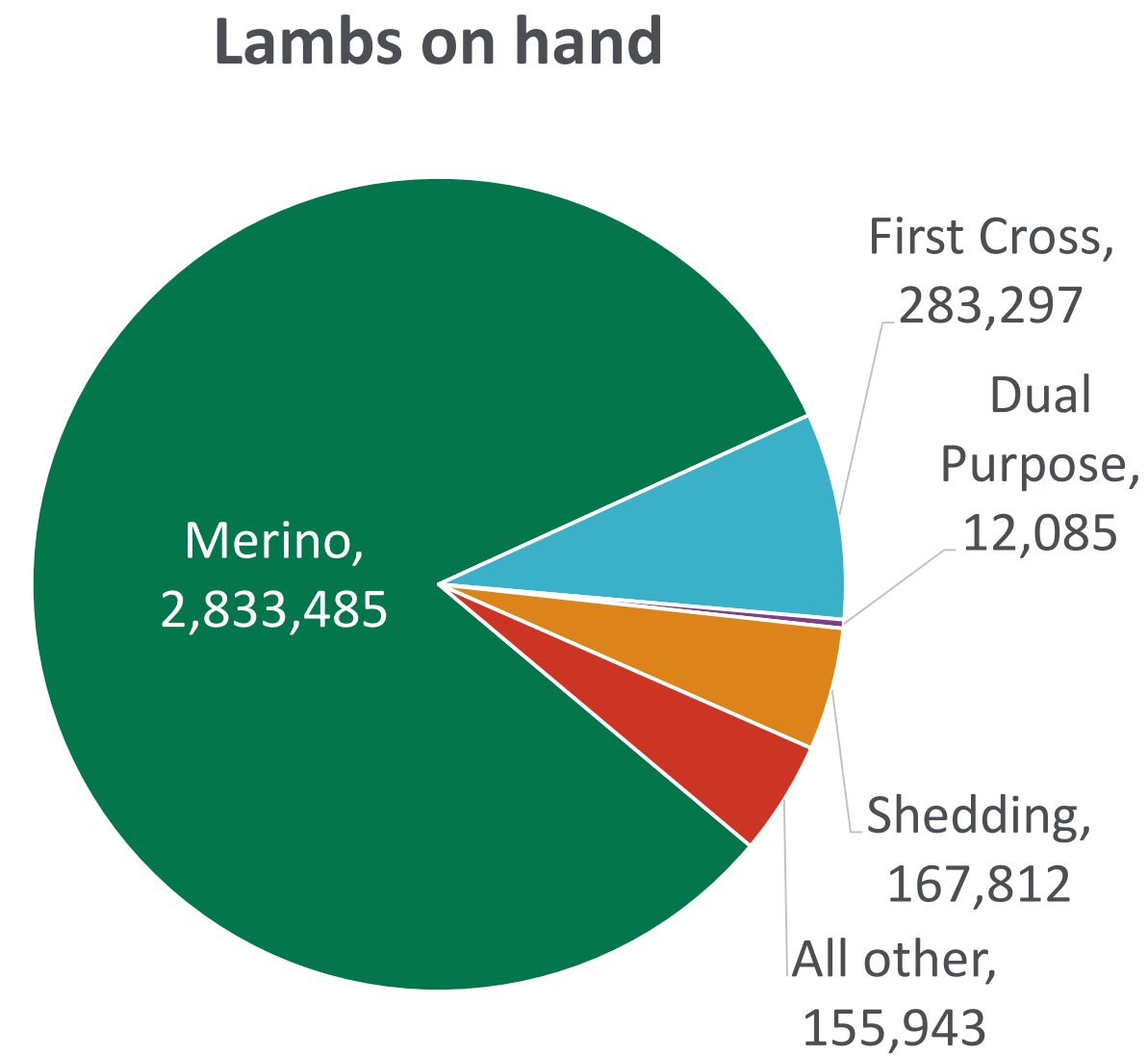
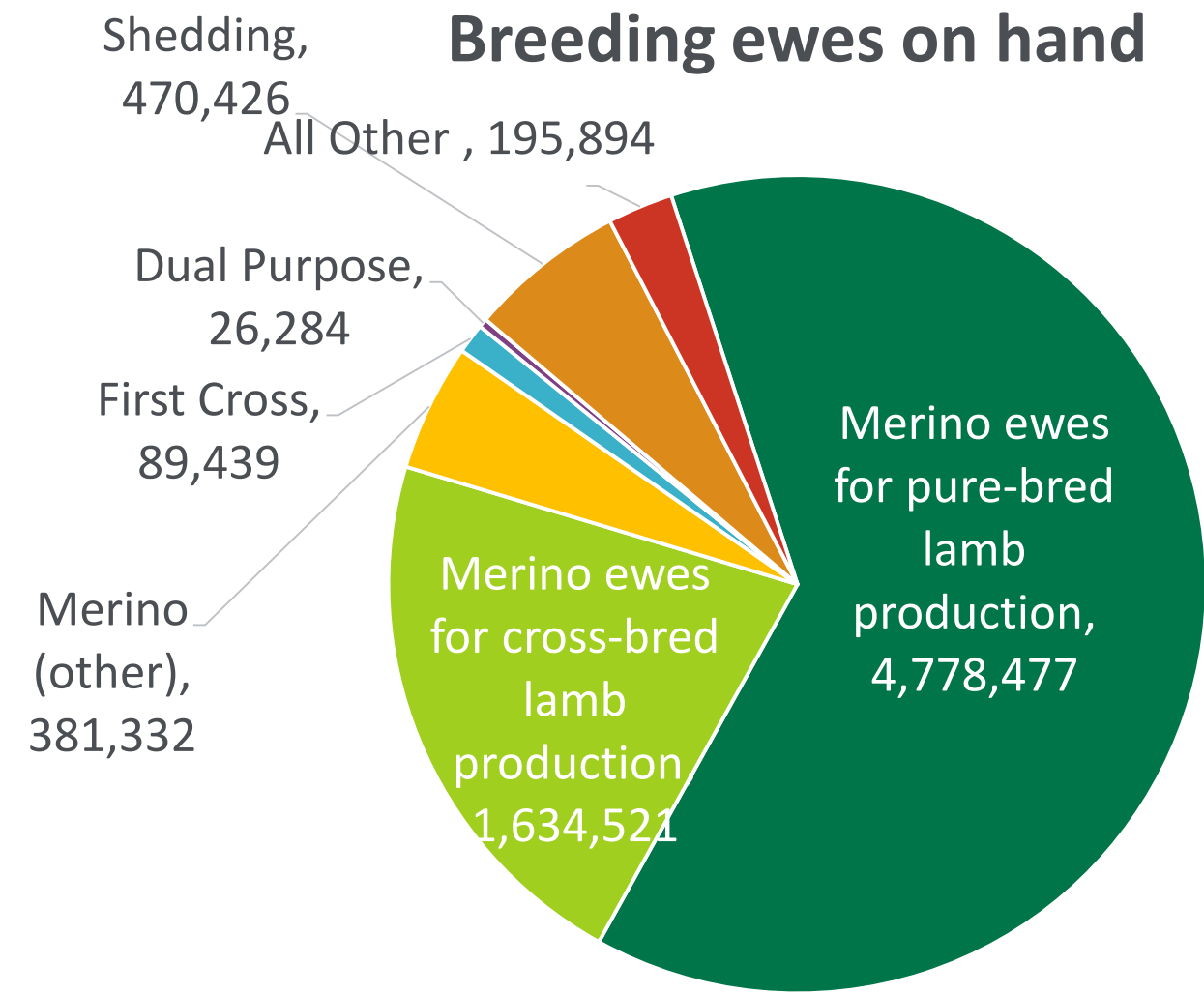
How to achieve increase



Totals

Breeding ewes on hand	1,040,147
Lambs on hand	723,287
Expected lamb sales in the next 4 months	334,194
Lambs marked in the past 4 months (1 Nov – 29 Feb)	139,541
Number of ewes joined to produce marked lambs	144,487

Western Australia



Totals

Breeding ewes on hand	7,576,372
Lambs on hand	3,452,622
Expected lamb sales in the next 4 months	1,266,680
Lambs marked in the past 4 months (1 Mar – 30 Jun)	194,129
Number of ewes joined to produce marked lambs	240,436

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.

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