

Comparing lamb marketing methods

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Introduction

When comparing prices available from different lamb selling methods, lamb producers should recognise that the article being sold is meat. Meat is traded on a per kilo basis and, irrespective of what selling method is used, the carcase is valued at \$ per kilogram delivered to the processor. However, to calculate the value of a lamb, producers need to understand the following factors that contribute to that value.

- carcase weight
- skin value
- payment basis: hot versus cold weight delivered to the abattoir



Carcase weight

Carcase weight can be estimated by using the following formula:

$$\text{Estimated carcase weight} = \text{live weight} \times \text{dressing percentage}$$

When calculating carcase weight it is important to

have an understanding of the factors affecting dressing percentages. You also need a set of lamb scales for accurately determining the live weights of the lambs for sale.

Factors affecting dressing percentage

Of the many factors that influence dressing percentage, the most important are:

- fatness
- time off feed and water before live assessment
- skin weight
- sex
- breed
- weaned / unweaned
- carcase trim
- seasonal and feed conditions

Fatness

Fat scores are based on actual soft tissue depth at the GR site. This is 110 mm from the midline on the 12th rib. Fat scores vary from fat score 1 (leanest; tissue depth 1–5 mm) to fat score 5 (fattest; tissue depth > 20 mm). As a general rule of thumb, a second-cross 3-score lamb that is weaned with a 50 mm skin will have a dressing percentage of 45 per cent, and for each change in fat score there will be a 2 per cent change in dressing percentage (Table 1).

Table 1: Changes in dressing percentage with fat score

Fat score	Dressing %
1 (GR 1–5 mm)	41%
2 (GR 6–10 mm)	43%
3 (GR 11–15 mm)	45%
4 (GR 16–20 mm)	47%
5 (GR 21 mm +)	49%

Time off feed and water before live assessment

The estimated dressing percentage of lambs varies according to the period of time they are off feed and water before live assessment. Table 2 outlines the increase in dressing percentage with increasing time between mustering and weighing.

Table 2: Changes in dressing percentage with hours off feed

Time off feed	Increase in dressing %
0–3 h	0
4–5 h	+1%
6–8 h	+2%
9–12 h	+2.5% to 3%
13–24 h	+3.5% to 4.5%

Skin weight

The skin weight of lambs varies according to the wool length, the amount of water held by the wool, and the tissue weight. The dressing percentage allowance for wool length is approximately 1 per cent per 25 mm of wool length change from the standard 50 mm length used as a 45 per cent dressing percentage guide.

For example, if the wool length is 100 mm, then deduct 2 per cent from the dressing percentage, or if it is 25 mm add 1 per cent to your estimated dressing percentage. A 75 mm skin, when thoroughly saturated, can hold 1.5 to 2 kg of water. Alternatively, when it is damp (that is, just too wet for shearing) it will hold 0.2 to 0.5 kg of water. As a result, the live weight of the animal when assessed has to be adjusted to account for the conditions.

Sex

Wether lambs can dress up to 2 per cent less than ewe lambs, because ewe lambs at high weights tend to have higher fat measurements.

Breed

The dressing percentage of lambs is affected by breed, so that first-cross merino lambs dress up to 1.5 per cent less than second-cross lambs at equivalent live weights and fat scores. Purebred merino lambs at equivalent live weights and fat scores may dress up to 2.5 per cent less than second-cross lambs.

Weaned / unweaned

Unweaned lambs (still sucking) may dress 1.5 to 2 per cent higher than weaned lambs of the same weight and fatness.

Carcase trim

'Trim' is a term used in abattoirs to describe the dressing procedure. Depending on the type of trim, dressing percentages can vary significantly. The **standard AUS-MEAT carcass trim** requires the removal of kidneys, channel fat, cod fats and thick skirt (diaphragm), and is most commonly used by export abattoirs. The **non-standard carcass trim** retains the kidneys, channel and cod fats and thick skirt in the carcass and therefore increases dressing percentages up to 4 per cent. This latter type of trim is performed in some domestic plants. Variations of the above two methods occur, with some domestic processors removing the kidneys and some channel and cod fats but **not** removing the thick skirt.

Seasonal and feed conditions

The dressing percentage of lambs will decline as feed quality and/or dry matter levels decline. This is due to the fact that there is a faster rate of loss in gut fill with animals on lush feed.

Skin Value

The method of sale should have no effect on the value of a lamb skin, but sometimes the price received from abattoirs may be determined by specialist skin buyers.

The skin as a percentage of the value of any carcass ranges from 0 to 30 per cent, depending upon the breed, wool length and quality. The area of the skin and freedom from grass seed are all relevant. Listed below are some common management strategies that can help producers to maximise their skin return.

- Avoid sires with black points (discounted price)
- Vaccinate behind the ear
- Avoid grass seed and burr contamination
- Avoid full crutching (over the tail)
- Control fly strike and lice
- Adopt an effective worm control program to maintain cleanliness
- Apply spray markers only to the head
- Where possible, allow 4 to 6 weeks after shearing and before slaughter
- When transporting lambs, always adopt a clean truck policy and curfew lambs for 12 hours minimum

Payment on hot vs cold weight

The dressing percentage guidelines outlined above are standards set against the AUS-MEAT trim for hot standard carcass weight (HSCW). This applies to the weight of the lamb carcass immediately post-slaughter and dressing but prior to entry into the chillers.

Some processors try to purchase lambs and pay on the cold carcass weight. Although this practice is not common, it means that payment is made on the weight of the carcass after chilling. The difference between hot weight and cold weight can vary, with some processors applying a 2 to 3 per cent adjustment to allow for carcass weight loss during the chilling process.

For example, if Processor A pays \$5.00/kg hot weight and Processor B pays \$5.00/kg cold weight and assumes a 3 per cent loss, then the payments on 24 kg lambs of equivalent fat scores are as follows:

Processor A $\$5.00 \times 24 \text{ kg} = \120.00 plus skin
 Processor B $\$5.00 \times (24 \times 0.97)$
 $= \$5.00 \times 23.28 \text{ kg}$
 $= \$116.40$ plus skin

Selling methods (price comparisons)

When attempting to compare different selling methods, producers must be aware of how prices are calculated. The following examples are realistic scenarios that occur every day in the sale of lambs for slaughter. For ease of calculation, we will assume that both methods have identical trim, payment is made on hot standard carcass weight, and the skins achieve the same price.

The example is for second-cross shorn lambs that are 8 hours off feed when assessed, have an average live weight of 50 kg, and are 2, 3 and 4 score with a 40 mm skin.

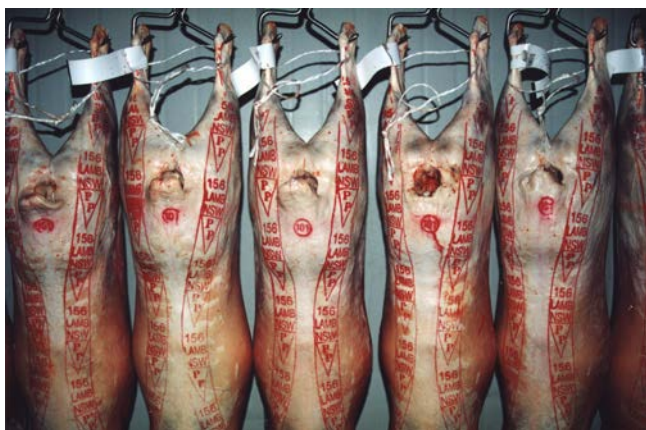


Photo courtesy of NSW DPI

Paddock sale or saleyard auction

In many dollar-per-head lamb transactions, such as saleyard and paddock sales, the buyer will underestimate the dressing percentage and hence the carcass weight. This is due to the fact that lambs are often slaughtered over several days following the sale, resulting in carcass weight loss, and buyers also apply a safety margin for any error in estimating carcass weight. As a result, it would not be unusual for the producer to be offered \$117.00 per head, based on a 44 per cent dressing percentage on a 50 kg lamb giving an estimated 22 kg carcass weight. The calculations are shown below.

Calculations	Value of lamb
Price offered (estimated HSCW is 22 kg)	\$117.00
Deduct skin value \$10/head	\$107.00
Add cost of cartage \$3 (frequent client ie processor / abattoir)	\$110.00
Divide by estimated HSCW of 22 kg	\$5.00/kg
Estimated value paid to producer	\$5.00/kg

Over-the-hook (OTH) sale

In this case the producer has been offered \$5.00/kg HSCW delivered with a \$10 skin. The calculations are:

Calculations	Value of lamb
Standard dressing percentage	45%
Adjustment for time off feed (8 hours)	+2%
Adjustment for fat depth (for 2, 3 and 4 assume nil)	0
Adjustment for skin length (assume nil)	0

Expected dressing percentage	47%
50 kg x 47%	23.5 kg HSCW
23.5 kg @ \$5.00/kg	\$117.50/head
Add \$10/head lamb skin	\$127.50/head
Deduct cartage cost (\$4 for producer)	\$123.50
Value to producer	\$123.50

Which sale method to choose?

In this comparison the OTH method pays the producer \$5.00/kg, resulting in a return of \$123.50 per head. This is a better result than the offer of \$117.00 per head at auction/paddock sale, which on the 23.5-kg lambs (actual weight) was only \$4.55/kg plus skin and not the \$5.00/kg estimated.

It is also important to note that under the scenarios outlined above, no cost was factored in for transportation from farm to saleyards and no saleyard fees added; that is, the \$117.00 is an on-farm price.

In the OTH scenario extra cartage was added to account for the fact that the buyer for the processor is often given a cheaper rate as a regular customer. Regular OTH sellers can sometimes negotiate cheaper cartage rates.

Conclusions

When determining the best method for the sale of lambs it is essential that producers know how to:

- determine the carcass weights of the lambs for sale. Weighing lambs and assessing for fat score is an ideal way to accurately predict dressing percentage and hence the estimated carcass weight of the live lamb.
- do some market research so as to get current values
- determine whether the price expected to be paid by the processor when selling OTH is equivalent to the estimated price in the paddock or saleyard.

When selling lambs OTH, producers also receive feedback on their lambs, which assists in management decisions and helps them to perfect their assessment skills.

Processors who regularly buy lambs from a known background or source are more likely to form closer working relationships (alliances) with producers who consistently supply lambs that meet their requirements. This could result in a contract for supply at a given time and at a known price, or preferred supplier status in periods of high supply.



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More information

For advice and information about improving your sheep enterprise, contact Brent McLeod, Northern Tablelands Local Land Services Senior Land Services Officer – Sheep, on 02 6730 1931, 0413 884 710 or brent.mcleod@lls.nsw.gov.au

Acknowledgments:

This Land Fact is a revised edition of NSW DPI Agfact A3.8.6, first edition 2003.

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