

# Sheep transport costs – calculator instructions

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**Note:** These instructions relate to the calculator contained within

- Sheep transport costs  
[www.dpi.nsw.gov.au/reader/an-transport/sheep-transport-costs](http://www.dpi.nsw.gov.au/reader/an-transport/sheep-transport-costs)

## Introduction

Choosing between markets is difficult, especially when transport costs vary. This calculator is designed to provide you with a simple-to-use aid to calculating the cost of transporting stock on a 'per kilogram' basis, a 'per head' basis and a 'total cost' basis. The 'per kilogram' costs will be either on a 'liveweight' basis or a 'dressed weight' basis, depending on the user choice.

The method of transporting can have a big impact on the price that you actually receive for your sheep, especially in a situation where discounts apply to meat that is not up to specifications.

Primefact 298 *Tips for transporting cattle and sheep* contains advice on ways to ensure that meat quality is maintained during the transporting of sheep.

## Entering data

### Select weight

Click on the arrow to choose either 'live weight' or one of the dressed weight percentages. Dressing

percentages are generally within the range 38%–50%.

### Carrier cartage rate

Calculate the net after subsidy rate (if any subsidies apply) per kilometre in dollars and cents (use the format \$xx.xx). For example, if the actual rate is \$5.00/km and the subsidy is 50%, the rate to use is \$2.50/km. If the rate charged is a whole number of dollars, for example \$3 per kilometre, entry of a '3' rather than '3.00' will be accepted.

### Kilometres to travel

It is wise to have the carrier quote the number of kilometres for which you will be charged. Quotes are usually based on a 'per loaded kilometre' basis, but a quote could be made on a 'return trip' basis.

### Minimum cartage fee

Many carriers quote a minimum cartage fee (flag fall). Enter this fee (net of any subsidy) in whole dollars. This could come into play if the distance over which the livestock are to be transported is relatively short. The calculator program will use in its calculations the greater of the 'minimum cartage fee' or the result obtained from 'cartage rate multiplied by the kilometres to travel'.

### Average animal liveweight in kg

Enter the average weight, in kilograms, of the livestock that you are transporting.

### Number of animals per load

It is cheaper both per head and per kilogram to have a fully loaded truck. Click the button titled 'Sheep load info' to get an estimate of the number of animals of a given weight that can be loaded into standard trucks.

These figures are only a guide and in some circumstances loading to the suggested maximum



could be beyond RTA regulations based on wheel loading. (For details, see 'Heavy Vehicle Mass, Loading and Access', which is part of the RTA Heavy Vehicle Information website [www.rta.nsw.gov.au/heavyvehicles](http://www.rta.nsw.gov.au/heavyvehicles)). This problem is more likely to occur with older-style trailers that are generally heavier than the newer trailers.

#### 'Calculate cost' button

This button carries out the calculations based on the entered information. If the minimum cartage fee is greater than the result of multiplying the 'per kilometre' rate and the distance travelled, an alert box will give the message 'Minimum flag fall cost = \$xxx'.

The 'xxx' corresponds to the minimum cartage fee entered in the program (see the Minimum cartage fee section above).

#### 'Reset' button

This button returns the calculator program to default values.

#### Results section

The last three boxes give the results.

##### *Total cost in dollars*

The total cost in dollars is the charge due to the carrier. It is calculated as the greater of 'Carrier cartage rate (\$/km) multiplied by the distance travelled (km)', or the 'Minimum cartage fee (\$)'.  
$$\text{Total Cost} = \max(\text{Carrier Rate} \times \text{Distance}, \text{Minimum Fee})$$

##### *Cost in \$ per head*

The 'Cost in \$ per head' is the total cost in dollars divided by the number of stock carried.

##### *Cost cents/kg (live or dressed)*

If **liveweight** is specified, the results provide a cost per kilogram to transport the stock. This is calculated by dividing the 'Cost in \$ per head' by the average liveweight.

If a **dressed weight** is selected, the calculator program first calculates the average dressed weight per animal by multiplying liveweight by the specified dressing percentage to give an average carcass weight per head.

The result box then gives the cost in \$/kg dressed, which is calculated by dividing the cost \$/head by the average carcass weight per head.

These figures are invaluable in working out the premium that would be required to transport sheep to a market that is further away.

#### Using the model – an example

The potential use of the model is best described by an example. Say a producer has a mob of 220 × 45 kg lambs, ready for market. The producer has to decide whether to supply the closest abattoir, which is a distance of 100 km from the farm, or an abattoir that is 350 km from the farm. The quotes from the local abattoir are 255c/kg dressed, and for the more distant market, 270c/kg dressed. The producer estimates that the lambs will fit on a double-deck semi and obtains a quote of \$3.15/km from the carrier. The minimum charge quoted by the carrier is \$350. The producer estimates that dressing percentage will be 47%.

Using the model, the respective costs per kilogram dressed are as follows:

- Closest abattoir (minimum cartage fee (flag fall) of \$350 comes into play):  
Transport cost is 7.52c/kg dressed.
- Distant abattoir transport cost (total cost is \$1102.50):  
Transport cost is 23.69c/kg dressed.

The difference in cost on a 'dressed weight' basis is 16.17c (23.69c – 7.52c), while the difference in the premiums quoted is 15c/kg (270c – 255c). This analysis indicates that it will be cheaper to supply the closer market.

If transport subsidies are available during drought, the net cost after subsidy should be used in the calculations.

#### Factors not covered by the model

Comparing different markets assumes that the quality of the meat is the same in both cases. Factors such as the increased risk of bruising and therefore the potential for a higher portion of downgraded meat is not taken into account in this model. Producers can take this into account by adjusting the quoted price to represent the average price that could be expected, including an allowance for downgrading.

While the model handles a part-load quite well, adjustments would have to be made if a load were to be shared between two or more producers. In this situation the rate per kilometre and the minimum cartage fee can be entered as a portion of the expenses the user is bearing.

For example if the quoted cartage rate is \$3.60/km, the minimum cartage fee is \$400, and the portion of the cost to be borne by the user of this calculator program is 50%, then the amounts entered in the program should be \$1.80/km for the cartage rate, and \$200 for the minimum cartage fee.

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (November 2006). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.

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