Livestock transport costs - calculator instructions

October 2015, Primefact 299, second edition
Todd Andrews, Beef Development Officer, Beef Industry Centre, Armidale
Geoff Casburn, Sheep Development Officer, Wagga Wagga Ag Institute

Note: These notes relate to the livestock transport calculators for:
- cattle
- sheep

Introduction
Estimating transport costs is an important step when choosing a livestock market. The cost of transport can often outweigh lower purchase prices or increased sale values obtainable at larger, but more distant, regional sales.

Each calculator enables the user to quantify the cost of transport on a ‘per kilogram’, ‘per head’ or ‘total cost’ basis. Per kilogram costs can be on a live weight or a carcase weight basis.

Entering data
Select weight
Click on the arrow to choose ‘live weight’ or an appropriate dressing percentage for a carcase weight output.

Dressing percentages are generally within the range 48%–55% for cattle (see Primefact 340 Dressing percentages for cattle) and 38-50% for sheep.

Carrier cartage rate
The kilometre rate will vary depending on the size of the truck used to transport the stock. In the first instance it is best to discuss loading thresholds with your chosen carrier.

For general information the calculator includes a link to ‘cattle or sheep load info’ to help the user estimate the number of animals (of a given weight) that can be loaded onto standard sized trucks.

These figures are only a guide and in some circumstances loading to the suggested maximum could be beyond Roads and Maritime Service (RMS) regulations based on wheel loading thresholds and by the carrier.

‘For further details, see NSW Livestock Loading Scheme (NSWLLS) which is part of the RMS Heavy Vehicle Information website [http://www.rms.nsw.gov.au/heavyvehicles](http://www.rms.nsw.gov.au/heavyvehicles)

Once a kilometre rate has been agreed to, it can be adjusted should a transport subsidy be available (Declared Natural Disasters or Animal Welfare cases). For example, if the carrier rate is $5.00/km and the subsidy is 50%, the relevant rate is $2.50/km.

Kilometres to travel
Where possible, have the carrier quote the number of kilometres to be charged. Quotes are usually based on a one way trip or on a ‘per loaded kilometre’, however, in some instances both ways may be charged, for example if a back load is required.

Minimum cartage fee
Many carriers have a minimum cartage fee (flag fall) to account for relatively short distances. Enter this fee minus any transport subsidies.

The calculator selects the greater of the two fees, either the ‘minimum cartage fee’ or the ‘cartage rate/km x the kilometres’ travelled.
Average animal liveweight in kg
Enter the average liveweight of the animals to be transported.

Number of animals per load
Enter the number of animals to be transported.

‘Calculate cost’
Click this button to calculate the results based on the information entered.
If a change is made to any input, this button must be selected to recalculate the results.
If the minimum cartage fee is greater than the ‘calculated cost per kilometre travelled’ then a message will appear stating that the ‘Minimum flag fall cost has been used.

Results
The results section includes total cost, cost per head and cost per kilogram liveweight or carcase weight (according to what was selected).

Cost cents/kg (live or dressed)
These figures are useful in working out the price premium required to exceed the increased transport cost associated with accessing markets further away.

Using the model – an example
A producer has a mob of forty 550 kg steers ready for market and has to decide whether it is more profitable to sell to the closest abattoir or one that is an extra 250 km away.

The quotes from the local abattoir are $5.50/kg carcase weight, and for the more distant market, $5.55/kg cwt.

The producer estimates the steers will fit on a semi and obtains a quote of $4.80/km. The local abattoir is 100 km away, while the other is 350 km.

The minimum charge quoted is $600 and the producer estimates a dressing percentage of 53%.

Using the model, the respective costs are as follows:
• Closest abattoir transport cost = $600 (minimum cartage fee applied)
  Transport cost is 5c/kg cwt.
• Distant abattoir transport cost = $1680
  Transport cost is 14c/kg dressed.

The difference in cost on a ‘dressed weight’ basis is 9c (14c – 5c), while the difference in the premiums quoted is 5c/kg ($5.55 – $5.50). This analysis indicates that it will be cheaper to supply the closer market.

Factors not covered by the model
The calculations do not account for any differences in the level of compliance (animals meeting specification) resulting from increased travel time, although research suggests that variation in actual travel time has little impact on beef quality and grading.

The models do not account for shared loads between two or more producers. In this situation the rate per kilometre and the minimum cartage fee can be adjusted to the proportion payable by the user.

For example, if the quoted rate is $4.80/km, the minimum cartage fee is $600, and the proportional cost borne by a user is 50%, then the amount entered in the program should be $2.40/km for the cartage rate and $300 for the minimum cartage fee.

Acknowledgements
This Primefact is based on an original publication written by Alan Richards, Ian Blackwood and Lloyd Davies.

For updates go to www.dpi.nsw.gov.au/factsheets

© State of New South Wales through the Department of Industry, Skills and Regional Development, 2015. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (August 2015). 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 the Department of Primary Industries or the user’s independent advisor.

ISSN 1832 6668