



Horticulture Australia

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Horticulture Australia Limited



BUSINESS CASE

Buy a Truck or Use a Contractor?



Horticulture Australia

"The Vegetable Industry Development Program is funded by HAL using the vegetable levy and matched funds from the Australian Government".





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Business Case

BUY A TRUCK OR USE A CONTRACTOR?

What is a business case?

A business case is a formal process of planning to provide the decision-maker with useful information to help them make a decision. You will have greater confidence in your decision, if you use a formal process and make sure you count the right things the right way, whilst also considering the things that cannot be counted.

There is no one size fits all approach. You need to investigate the specific costs and benefits to your situation. This example is based on some experiences of growers in the Sydney region and has been prepared as a guide only. Each business situation varies dramatically when considering transport costs and benefits. In many instances, issues such as refrigeration, timing of deliveries and convenience, outweigh the simple cost of transport.

Owning a truck vs using contractors

All vegetables need to be transported to a warehouse, packer, buyer or wholesaler. Some growers use a contractor for cartage, while others own their truck(s) and do the cartage themselves. This business case presents an analysis of the costs and benefits of both forms of transport.

What is the decision?

There are two good ways to approach this decision depending on your situation:

1. I currently use contractors, should I buy a truck and do my own cartage? Or
2. I currently use my own truck, should I sell my truck and use contractors?

This business case explores both opportunities and compares them with using an external contractor:

- A business that is currently looking at buying a truck compared to their existing use of external contractors
- A business that owns a truck and is considering selling the truck to use a contractor.

What do you have to count?

Depreciation

Depreciation is when machinery or other assets decrease in value over time. This is not a cash cost, but a critical allowance to make when calculating profit or the difference between owning equipment and using contractors.

If depreciation is not accounted for, then there will be no money available to replace the machinery when it is worn out.

Cost of capital

An investment in new machinery also means that the grower will need to use spare cash or increase borrowings to pay for the machines, thus they need to consider the **cost of capital**. The cost of borrowed capital is obvious (i.e. the interest cost), but the cost of your own capital is less clear. Why should you value it any less? If you spend money on a new truck, then there will be other things you cannot do with that money, e.g. employ someone to do your marketing, pay less overdraft interest, improve irrigation systems. Thus, your own capital has a value too. It is known as the opportunity cost.

All vegetables need to be transported to a warehouse, packer, buyer or wholesaler. Some growers use a contractor for cartage, while others own their truck(s)

Transport requirements, contractors rates and insurance

It is important to clearly define the **transport requirement** that you have for freight and answer the following questions:

- How many freight movements are required? (days/year)
- What are the average and maximum hours of each freight movement? (hours/day)
- How many multiple freight movements are there? i.e. days where a truck would travel in opposite directions (days/year)
- What is the minimum, maximum and average load of the freight movements? (tonnes/pallets/bins per day)

Obtain **quotes from contractors** based on your estimated work requirement that you have calculated. Ensure that contractors have the necessary **marine and transit insurances** to cover your product in the event of a vehicle accident or some other action that damages your product.

Additional labour costs

When considering the use of a truck it is important to think about the time involved in freight, including the loading, unloading and delays at your destination. If you, as the owner/operator of the business, will do the driving, who will complete your work-load? Can you find a licensed driver who will work on a part or full time basis?

When thinking about the **additional labour costs** it is important to consider:

- The hourly rate
- Work cover insurance premiums
- Superannuation contributions
- Payroll tax depending on the size of your business
- Any additional administrative costs that you may incur

Also ensure your staff are safe by including training and safety aspects, such as log-books, road laws and loading/unloading procedures.

Operating costs

You will need to thoroughly investigate and understand all the **operating costs** associated with owning your own truck. If you already own a truck, make sure that you keep a record of all the costs you incur. These costs will include:

- Fuel and Oil
- Servicing and maintenance
- Registration
- Insurance (vehicle)
- Insurance (marine & transit)
- Any road tolls
- Additional mobile phone (if required)
- Steer, drive and trailer tyres.

These costs will be measured either on a distance (per kilometre) or time basis (daily/annually). You may need to convert between one unit and another to make sure all your costs are either per kilometre or per annum.

The scenario

In this business case we are really looking at the same decision from two different sides, i.e.

1. Where you currently use contractors and are considering buying a truck; and
2. Where you currently have a truck and are considering selling it and using contractors.

Whilst they are similar decisions, there are some subtle differences, which mean we need to examine two scenarios for each question, i.e. a total of four scenarios. However, note that scenario 1A (Buy a truck) and scenario

2A (Keep truck) are the same. They are presented to make it easier for you to compare the alternatives for whichever decision you face.

	Decision 1: Currently use contractors		Decision 2: Currently have own truck	
What do you count?	Scenario 1A <i>Buy a truck</i>	Scenario 1B <i>Continue to use contractors</i>	Scenario 2A <i>Keep truck</i>	Scenario 2B <i>Sell truck & use contractors</i>
Depreciation	The truck is a Heavy Rigid curtainsider that is second hand. The truck price is \$120,000 and it should be worth \$30,000 in 7 years.	There is no depreciation	The current truck is worth \$120,000 and it should be worth \$30,000 in 7 years.	Depreciation will no longer be a cost to the business, once the truck is sold.
Cost of capital	The cost of capital is 6%, as this is what the grower would receive if the money they are going to use to buy the truck was left in the bank.	There is no cost of capital.	The cost of capital is 6%, as this is what the grower would receive if the money they have tied up in the truck was in the bank instead.	The grower will sell the truck for \$120,000 and receive 6% interest (the cost of capital) if the proceeds of the sale of the truck are deposited in the bank. This is the subtle difference between the two decisions.
Transport details	2 x trips per week Average 24 bins per trip 40 weeks per year production 600 km round trip	\$55 / bin + GST	2 x trips per week Average 24 bins per trip 40 weeks per year production 600 km round trip	\$55 / bin + GST
Labour costs	Each trip is estimated at 9 hours with a total labour cost of \$32/hour.	There are no additional labour costs.	Each trip is estimated at 9 hours with a total labour cost of \$32/hour.	There are no additional labour costs.
Operating costs	Fuel/Oil \$0.70/km Repairs & Maintenance \$12,000/annum Insurance \$1,200/annum Registration \$950/annum	There are no repairs or maintenance costs.	Fuel/Oil \$0.70/km Repairs & Maintenance \$12,000/annum Insurance \$1,200/annum Registration \$950/annum	There are no repairs or maintenance costs.



How do you calculate the viability of each scenario?

The table below outlines the assumptions and calculations for the four scenarios.

For Decision 1, it would be cheaper to buy your own truck (\$86,990) rather than continue to use contractors (\$99,840) by about \$13,000 a year. This equates to a cost per pallet of \$45 for buying a truck, compared with the contractor cost of \$52 per pallet.

For Decision 2, it would only be marginally cheaper to keep your own truck (\$86,990) compared with selling the truck and using contractors (\$92,640), i.e. \$45 per pallet vs \$48 per pallet. The difference here is the interest earned on the capital the vegetable grower freed up by selling the truck. If access to capital is a limitation for your business, then this could be important to you.

ASSUMPTION	DECISION 1 Currently use contractors		DECISION 2 Currently have own truck	
	1A	1B	2A	2B
	Buy a truck	Continue to use contractors	Keep truck	Sell truck & use contractors
Capital Costs				
Current value	\$120,000	\$0	\$120,000	\$120,000
Salvage value	\$30,000	\$0	\$30,000	\$120,000
Expected life (years)	10	0	10	0
Interest rate / opportunity cost	6.0%	0.0%	6.0%	6.0%
Transport Requirements				
Number of weeks of production	40	40	40	40
Number of trips per week	2	2	2	2
Number of bins / pallets / truck	24	24	24	24
Distance per trip (km)	600	600	600	600
Contract Rate \$/bin	\$0	\$52	\$0	\$52
Kilometers / annum	48,000		48,000	
Labour Costs				
Number of staff	1	0	1	0
Hours worked per day	9	0	9	0
Staff costs (incl. on costs)	\$32	\$0	\$32	0
Operating Costs				
Fuel, repairs & maintenance / km	\$0.70	\$0	\$0.70	\$0.00
Repairs & maintenance	\$12,000	\$0	\$12,000	\$0
Insurance	\$1,200		\$1,200	
Registration	\$950	\$0	\$950	\$0
CALCULATION				
Costs				
Depreciation	\$9,000	\$0	\$9,000	\$0
Interest / opportunity cost	\$7,200	\$0	\$7,200	-\$7,200
Transport costs		\$99,840		\$99,840
Labour costs	\$23,040	\$0	\$23,040	\$0
Operating costs	\$47,750	\$0	\$47,750	\$0
Total Costs per Annum	\$86,990	\$99,840	\$86,990	\$92,640
Cost per kilometre	\$1.81	\$2.08	\$1.81	\$1.93
Cost per pallet	\$45	\$52	\$45	\$48

There will also be taxation considerations and cash flow implications. It may be the case that a vegetable grower can save \$5,000 each year in freight costs, but cannot

afford the additional debt load or loan repayments to buy a truck. Alternatively, if the truck is sold, there may be some capital gains tax to consider.

Every farm is in a different situation and needs to carefully apply the principles and approach to calculation that is outlined in this case study to their specific business

What are the risks and how can they be managed?

What is the risk?	Why is this a risk?	How can this risk be managed?
Accident	Accidents do happen and this can damage your truck, cause the loss of produce and may mean that you miss out on delivering to market for a period of time.	Implement the necessary insurance policies for both the truck and any goods that you carry on the truck. Also consider contingency plans if your truck is written off and you need access to transport in a short timeframe.
Safety of staff	There is a requirement to ensure that your staff are safe in their workplace at all times.	Ensure that staff are trained in use of personal protective equipment (PPE) such as high visibility clothing, that staff do not stand in the areas where forklifts work and they have communications in case of emergency.
Road safety	Driving for long periods of time causes driver fatigue.	Implement a fatigue management system, keep appropriate logbooks, monitor driver hours and ensure delivery deadlines are safe.
Business risk	If the business has a risk of crop failure, a large debt load or difficulty meeting existing finance payments then additional machinery, such as a truck, can increase your exposure to 'running out of cash'.	Conduct a risk analysis of your finance commitments to see how sensitive your business is to crop failures or changes in the business' operating environment.
Breakdown	Machinery can break down at any point in time. If this occurs and a major transmission or engine overhaul is required a \$20,000+ repair may be required that will not add any significant value into the truck.	Ensure that the business has a cash flow and access to funds in the event of a breakdown. If cash flow is tight, consider using a contractor to reduce this risk.
Poor contracting service	The delivery of product to market is an essential part of a profitable business and a poor contracting service will significantly impact on reputation.	There may be a deliberate decision to have all transport managed internally.

What else is important?

In addition to the 'maths' of the situation, it is important to consider the other impacts of your decision.

Getting your product to market on time

One of the critical aspects to a business may be getting product to market at a specific time. If a contractor is unable to meet these conditions, then there may be little choice but to run your own truck. It may also be the case that contractors are hard to find and cannot provide a reliable service.

Convenience

Convenience is also worth considering, either the convenience of not having to worry about owning a truck and running it, or alternatively the convenience of having your own truck that is dedicated to your operation and can be used whenever you need it.

Appendix – Detailed calculation

CALCULATION	DECISION 1 <i>Currently use contractors</i>		DECISION 2 <i>Currently have own truck</i>	
	1A	1B	2A	2B
	<i>Buy a truck</i>	<i>Continue to use contractors</i>	<i>Keep truck</i>	<i>Sell truck & use contractors</i>
Depreciation				
current value	\$120,000	\$0	\$120,000	\$120,000
less salvage value	\$30,000	\$0	\$30,000	\$120,000
equals amount to depreciate	\$90,000	\$0	\$90,000	\$0
divided by expected life	10	0	10	0
Equals depreciation	\$9,000	\$0	\$9,000	\$0
Interest / Opportunity Cost				
current value	\$120,000	\$0	\$120,000	-\$120,000
multiplied by interest rate	6.0%	0.0%	6.0%	6.0%
Equals interest / opportunity cost	\$7,200	\$0	\$7,200	-\$7,200
Transport Costs				
no. of weeks of production	40	40	40	40
multiplied by no. of trips per week	2	2	2	2
equals no. of trips per year	80	80	80	80
multiplied by no. of pallets per truck	24	24	24	24
equals no. of pallets per year	1,920	1,920	1,920	1,920
multiplied by contract rate/bin	\$0	\$52	\$0	\$52
Equals transport cost	\$0	\$99,840	\$0	\$99,840
Labour Costs				
no. of weeks of production	40	40	40	40
multiplied by no. of trips per week	2	2	2	2
equals no. of days labour required	80	80	80	80
multiplied by hours worked per day	9	0	9	0
equals no. of hours of labour required	720	0	720	0
multiplied by number of staff	1	0	1	0
equals total no. of staff hours required	720	0	720	0
multiplied by staff costs per hour	\$32	\$0	\$32	\$0
Equals labour cost	\$23,040	\$0	\$23,040	\$0
Operating Costs				
no. of weeks of production	40	40	40	40
multiplied by no. of trips per week	2	2	2	2
equals no. of trips per year	80	80	80	80
multiplied by distance per trip	600	600	600	600
equals total distance travelled	48,000	48,000	48,000	48,000
multiplied by fuel / km	\$0.70	\$0.00	\$0.70	\$0.00
equals fuel / km	\$33,600	\$0	\$33,600	\$0
plus R & M	\$12,000	\$0	\$12,000	\$0
plus Insurance	\$1,200	\$0	\$1,200	\$0
plus registration	\$950	\$0	\$950	\$0
Equals operating costs	\$47,750	\$0	\$47,750	\$0
Total Cost				
depreciation	\$9,000	\$0	\$9,000	\$0
plus interest / opportunity cost	\$7,200	\$0	\$7,200	-\$7,200
plus transport costs	\$0	\$99,840	\$0	\$99,840
plus labour costs	\$23,040	\$0	\$23,040	\$0
plus operating costs	\$47,750	\$0	\$47,750	\$0
Total cost	\$86,990	\$99,840	\$86,990	\$92,640
Cost per Kilometre				
total cost	\$86,990	\$99,840	\$86,990	\$92,640
divided by total distance travelled	48,000	48,000	48,000	48,000
Equals cost per kilometre	\$1.81	\$2.08	\$1.81	\$1.93
Cost per Pallet				
total cost	\$86,990	\$99,840	\$86,990	\$92,640
divided by no. of pallets per year	1,920	1,920	1,920	1,920
Equals cost per pallet	\$45	\$52	\$45	\$48

NB: Refer to the assumptions on page 6 used in these calculations.

Disclaimer

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