

FARM BUSINESS COSTS FACT SHEET

DO YOU KNOW WHERE YOUR MONEY IS GOING? CAN YOU JUSTIFY IT?

KEY POINTS

- ▶ Top farm businesses understand their expenditure in five key cost areas: Variable Costs, Overhead Costs, Financial Costs, Personal Costs and Capital Costs.
- ▶ Good cost management is central to running a profitable farming business. It is not just about reducing costs but understanding the returns.
- ▶ Understand why costs are grouped which will assist with enterprise analysis and business decision making.
- ▶ Costs tend to increase over time – review them regularly and look for savings.
- ▶ It is important to know the impact of costs on both your profit and loss and your cash flow.



Explore the range of software available to help keep track of farm business costs.

Defining business costs

The costs which farm businesses incur are classified into five categories:

- ▶ Operating:
 - 1 Variable Costs (input costs)
 - 2 Overhead Costs (fixed costs)
 - 3 Finance Costs,
- ▶ Non-Operating:
 - 4 Personal Costs and
 - 5 Capital Costs.

Understanding which category a cost should be allocated to is a basic starting point to accurately assess both the profitability of the various enterprises

you run (or may run in the future), and also your overall business profitability and financial efficiency.

1. Variable Costs

Variable costs are those costs which can be quite clearly attributed to a certain enterprise and which increase as the scale of the enterprise increases. Consider the cost of canola seed, for example. If you did not grow canola, there would be no point purchasing canola seed, as it could not be clearly attributable to the canola enterprise. The more hectares of canola you grow, the more seed you require and the higher the cost of canola seed becomes. Another example would be shearing cost. Again, if you did not run sheep, there would be nothing to shear and hence no cost, but the more sheep you run, the higher the shearing cost.

Table 1 provides a checklist of some of the most common variable costs.

Table 1 Common Variable Costs

- | | |
|---------------|--------------------------|
| ▶ Sowing | ▶ Insecticide |
| ▶ Seed | ▶ Shearing |
| ▶ Spraying | ▶ Crutching |
| ▶ Harvesting | ▶ Drenching |
| ▶ Windrowing | ▶ Mulesing |
| ▶ Fertiliser | ▶ Freight |
| ▶ Herbicide | ▶ Marketing |
| ▶ Contractors | ▶ Irrigation water costs |
| ▶ Fungicide | |

Some variable costs affect yield, with fertiliser on crops being the most obvious, followed by seeding rate and a number of others. Other costs are yield dependent; that is, they increase as yield increases,

such as freight and marketing costs. Others do not change regardless of yield, but the enterprise could not be undertaken without them. These include sowing and harvest costs. Others are more difficult to quantify as their costs are not dependent on yield, yet not using them would most likely have a negative impact on yield. These include costs such as herbicides, fungicides and insecticides.

Value of Knowing your Variable Costs

It is important to know the variable costs per hectare for any given enterprise for four reasons:

a. To select the most profitable

enterprise mix: You can calculate the enterprise gross margin per hectare and compare various enterprises for likely profitability in order to select the most profitable enterprise mix given environmental, market and agronomic issues.

b. To calculate working capital needed:

You can calculate the amount of working capital required to farm a certain number of hectares of a certain enterprise.

For example, consider the option of growing more canola instead of wheat next season. If we assume variable costs for growing canola are \$450/ha and for wheat, \$350/ha, canola is \$100/ha more expensive than wheat. The decision to grow an additional 500ha of canola instead of wheat will tie up a lot of working capital:

Additional Variable Costs:
\$100/ha x 500ha = \$50,000.

The decision to grow canola may appear more profitable over the year, but funding it up to harvest and sale may place significant strain on the business cash-flow, so it is important to ensure you have access to adequate working capital.

c. Sensitivity analysis:

Variable costs can be used to consider the sensitivity of enterprise profitability to price, yield and variable costs.

The enterprise gross margin per hectare is calculated by:

$$\text{Gross Margin} = \frac{\text{Yield} \times \text{Price}}{\text{Variable Costs}}$$

This helps to assess the effect of changing any of these variables on the gross margin. It demonstrates where

Table 2 Gross Margin Sensitivity

	Original Estimate	Price has 5% increase	Yield has 5% increase	VC has 5% increase
Price (\$/t)	\$500	\$525	\$500	\$500
Yield (t/ha)	2	2	2.1	2
Variable cost (VC) (\$/ha)	\$550	\$550	\$550	\$578
Gross margin (\$/ha)	\$450	\$500	\$500	\$423
Change from the original (\$/ha)		\$50	\$50	-\$28

management should be more focused to achieve higher gross margins. For example, assume a canola crop has the following:

Yield @ 2t/ha

Price @ \$500/t

Variable Costs @ \$550/ha

Thus, this Canola Gross Margin =
(\$500/t x 2t/ha) - \$550/ha = \$450/ha

The sensitivity table above illustrates the effect on this Canola Gross Margin of a 5% change in each part of the equation.

Interestingly, it is yield and price that have the greatest effect on the gross margin, both having a \$50/ha increase with a 5% change in their values. This would indicate that while costs are important, profitability is more sensitive to improved management of yield and price! Please note that while this analysis is powerful, the adjustments of variable costs are also related to yield performance and sometimes grain quality, so it is sometimes difficult to separate the effect of variable costs from yield and price.

d. Comparison with other farmers:

If gross margins are used as a comparison between farms in the same area, then the differences could be in the price achieved, the yield experienced, the variable costs, or more likely a combination of all three. If you are in a farmer discussion group, comparative analysis would be a valuable exercise to do, but take care that the data is collected in the same way on each farm. In other words, compare 'apples with apples'! Also, drill down so that differences in price, yields and variable costs are recorded. You will do a lot of learning. However, also be aware that soil type and the season experienced by each farm can also cause differences in gross margins.

Remember: Growing the highest yield in the district may feel good at the pub, but growing the most profitable crop will always win in the end!

2. Overhead Costs

Overhead costs are those that generally do not change. They relate to the farm business as a whole and are irrespective of what mix of enterprises is undertaken, or the productivity of those enterprises. Table 3 shows many of the common overhead costs which relate to farm businesses.

Table 3 Common Overhead Costs

- ▶ Council Rates
- ▶ Permanent Wages
- ▶ Work-cover
- ▶ Superannuation
- ▶ Farm Insurance
- ▶ Registrations
- ▶ Repairs & Maintenance
- ▶ Accounting
- ▶ Utilities (phone/power)
- ▶ Subscriptions
- ▶ Travel
- ▶ Training
- ▶ Fuel
- ▶ Professional Fees

For most businesses, it is difficult to change overhead costs in the short term. However, assuming the intent is to maintain assets and continue trading, they must be met regardless of how land is utilised. Knowing what overhead costs will be for a year is important for good budgeting. It also identifies the minimum total gross margin a farm must generate in order to break even.

As with other types of costs, overhead costs can be compared with other producers to gain an understanding of how efficient a business is. The allocation of overhead costs to an enterprise and how these contribute to your cost of production

is discussed in detail in another fact sheet in this series 'Cost of Production' (refer to Useful Resources). It is useful to know your overhead costs per hectare.

Reducing Overhead Costs

Although reducing overhead costs can be difficult in the short term, it is certainly not impossible. Indeed, while most farmers are very focused on their input costs and do not like to see a dollar wasted on sprays, fertiliser and so on, far fewer regularly seriously review overhead costs to identify potential savings. These savings can be made in the following areas:

- **Farm insurances** – what are you actually insured for and is it appropriate?
- **Repairs and Maintenance** – are these costs all legitimate R&M or are some of them capital or lifestyle choices and should be treated as such?
- **Depreciation** – are you relying on the figure your accountant calculates (which will typically and rightly be quite high) or attempting to utilise a more realistic 'management' figure?
- **Communications** – there may be lower cost options for phone/internet combinations.

One common way of reducing overhead costs is to increase the scale of your operations. This is typically done by either purchasing, share-farming or leasing more land. Although this will usually mean that the total overhead costs the business pays will increase, many of these costs, such as accounting, utilities, rates if leasing land, travel, training, depreciation and so on, may not change with increased scale.

In this instance, while there will likely be an increase in total overhead costs, the overhead costs per hectare should decrease, as should overhead costs as a percentage of Gross Revenue. The business will achieve greater overhead cost efficiency by gaining what is known as Economies of Scale.

Case Study of Economies of Scale

To illustrate the benefits of Economies of Scale, this case study uses a Profit and Loss budget (Table 4) to compare two scenarios:

Scenario 1. An existing farm of 1,000ha depicted in the first column of Table 4.

Scenario 2. Following an expansion to 1,500ha by leasing additional land, depicted in the second column.

The overhead costs breakdown is deliberately more detailed than that for variable costs, to help illustrate the point. In this example, variable costs per hectare are assumed to remain at a constant \$365/ha on average.

We have assumed that most overhead costs do not change with the increase in farm scale. However, with the additional land under management, the cost of Wages, Repairs & Maintenance and Fuel & Oil have increased by 50%.

The key point here is that although total overhead costs have increased from \$219,500 in Scenario 1, to \$269,500 in Scenario 2, the overhead costs per hectare have decreased from \$220/ha (\$219,500/1000ha) to \$180/ha (\$269,500/1,500ha). Scaling up the business has reduced the overhead costs by \$40/ha across the property.

Finally, a word on labour costs: most business owners are very conscious of the cost of labour. While it can be a significant contributor to total farm costs, labour can have a significant impact on farm profitability - you get what you pay for. So when faced with an opportunity to save money on labour, consider the impact of a couple of mistakes or poor decisions on gross revenue. You may conclude good staff are worth the extra dollars! In this case study, an increased labour cost (Wages) of \$25,000 has resulted in an increase in Net Profit of more than \$100,000.

Take Home Message: Review overhead costs regularly. Be careful of cutting costs on things which could impact on productivity and risk.

3. Finance Costs

Finance costs for most farmers include the interest payments on term loans, equipment finance and their overdraft. However, it is important to understand that finance costs

Table 4 Profit and Loss Budget 2012-13

Farm Size:	Scenario 1: 1,000ha	Scenario 2: 1,500ha
Income		
Cash Sales	870,000	1,305,000
Movement in Inventory	44,000	66,000
Gross Revenue	914,000	1,371,000
Variable Costs	365,000	547,500
Whole Farm Gross Margin	549,000	823,500
Overhead Costs:		
Wages	50,000	75,000
Repairs and Maintenance	30,000	45,000
Insurance	15,000	15,000
Council Rates	10,000	10,000
Accounting	5,000	5,000
Telephone	5,000	5,000
Electricity	3,000	3,000
Training and Travel	2,500	2,500
Consultancy	5,000	5,000
Depreciation	67,000	67,000
Registrations	4,000	4,000
Subscriptions	3,000	3,000
Fuel and Oil	20,000	30,000
Total Overhead Costs	219,500	269,500
Operating Profit (EBIT)	329,500	554,000
Finance Costs		
Interest on Loan	84,000	84,000
Land Lease		75,000
Total Finance Costs	84,000	159,000
Net Profit Before Tax (NPBT)	245,500	395,000
Family Drawings	70,000	70,000
Taxation	73,650	118,500
Net Profit After Tax (NPAT)	101,850	206,500

include only the interest component of any repayment. If you are paying off a loan in principal plus interest repayments, the principal component of the repayment is a capital cost, not a finance cost. Finance costs are those which allow access to assets which are not our own.

Borrowing money to buy land is a great example: most farmers do not have adequate cash reserves to purchase additional land, and so borrow money from a bank to do so. The interest payable on that loan is the cost the bank charges for using their money to provide you access to that additional land. Similarly, finance costs must therefore include any land leasing costs. As with interest, lease payments provide the farmer with access to assets which he or she could not otherwise access.

4. Personal Costs

The issue of family drawings and value of management to the business has been discussed in detail in other fact sheets in this series (see Useful Resources). Typically, personal costs are lifestyle related and have little impact on business productivity. However, they are an unavoidable cost to any family business and the amount of annual drawings will obviously affect both the quality of life of the owners of the business, and the amount of cash left to either reduce debt or reinvest in the business.

5. Capital Costs

Capital expenditure is money spent on assets and does not appear in the Profit and Loss Budget, but can have a major impact on cash flow. Ideally, capital expenditure should improve the productive potential of the business. However, this is not always the case. Typical capital expenditure includes purchase and/or development of land, buildings, machinery, breeding live-stock and principal repayment of debt.

Machinery does require periodic replacement and not all capital expenditure will lead to improved productivity. A useful approach to capital expenditure is to prepare budgets based on sound

assumptions of likely outcomes both with and without the proposed capital expenditure, so at least you are aware of its impact before making the decision.

Conclusion

All costs tend to increase over time and so farm productivity must also improve over time to keep pace. Many costs are directly responsible for productivity and these must be monitored carefully, but it is important not to sacrifice productivity and gross revenue in the endeavour to cut costs. There are often a number of areas in any business where, either with a review of costs or by increasing scale, greater cost efficiency can be achieved.

FAQs

How are labour costs handled? Are they variable costs, overhead costs or drawings?

Depending on the context, labour costs can be categorised as any of the following:

- ▶ **Variable costs** – Labour costs are a variable cost where they can be attributed to a particular enterprise. A good example is shearing labour costs attributed to sheep and contract windrowing to canola. As a general rule, labour costs are variable costs when they are contract or casual labour.
- ▶ **Overhead costs** – Labour costs are overhead costs when the labour is used over multiple enterprises. Generally, overhead costs are hired permanent labour, whether they are full or part-time employees.
- ▶ **Drawings** – This is the money needed by the owner to cover their cost of living expenses. Most farmers see this as adequate recompense for their labour and management input to the business, and allows the business to retain as much profit as possible. However, this does not value their labour and management at commercial rates. For further information on this topic, refer to other fact sheets in Useful Resources.

USEFUL RESOURCES

Related GRDC Fact Sheets

Other fact sheets in this Farm Business Management series provide further detail on farm financial tools: Farm Business Overview (Order Code: GRDC909), Cash Flow Budget (Order Code: GRDC913), Profit and Loss Budget (Order Code: GRDC916), Balance Sheet (Order Code: GRDC917), Crop Gross Margin Budget (Order Code: GRDC914), Livestock Gross Margin Budget (Order Code: GRDC915), Production Economics (Order Code: GRDC937) and Valuing Family Drawings and Your Management (Order Code: GRDC936).

Copies of all the above fact sheets are FREE plus P&H and available from:

Ground Cover Direct Freephone: 1800 11 00 44 or email: ground-cover-direct@canprint.com.au

These can also be downloaded from www.grdc.com.au/fbm

Plan to Profit (P2P), a whole-farm financial management program –this will assist with calculating a farm's financial budgets: Cash Flow, Profit and Loss, Balance Sheet and Gross Margins. www.P2PAgri.com.au

MORE INFORMATION

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