Managing risk

Technical Note B06

Summary

The simple way to understand the risk environment that a dairy farm faces is to think of the question – 'What If'.

Business risk is associated with the physical operation of a dairy farm. What if the seasonal conditions are drier than expected? What if labour efficiency suffers through an accident or the loss of a key staff member?

Financial risk is associated with movements in input costs and output prices. What if the projected milk price falls? What if grain prices increase or what if interest rates rise?

Economic risk is associated with changes within the economy, over which you have no control. What if government policies change? What if consumer demand declines due to new taxes or a substitute product entering the marketplace?

It is essential to quantify each risk factor independently and also check the impact on our business when more than one risk factor is varied. What if production per cow changes 5% or 10%?

Managing risk is not complete unless the manager formulates a strategy to deal with variations in operating conditions, before they happen. What will your strategy be if grain prices rise from $250/t to $350/t?

Knowing how to position your business in the risk environment will depend on what your risk preference or attitude to risk is. Your preference can be conservative, moderate or aggressive.

What is risk

The simple way to understand the risk environment that a dairy farm faces is to think of the question – 'What If'. When you complete a projected cash flow budget it is very unlikely that your estimate of income and expenditure will be exactly correct. This could result in your projected surplus not being realised. You may in fact incur a large deficit. We have risk because we can't make perfect forecasts. This is true whether we have normal seasons or drought. It is important to note the impact of the following in planning.

Risk factors

Risk factors may be both internal and external to your farming operation. Some can be controlled while other risk factors you have no control over. Risk factors can be classified as follows.

Business risk

Risk associated with the physical operation of a dairy farm. What if the seasonal conditions are drier or wetter than expected, what if labour efficiency suffers through an accident or the loss of a key staff member or what if production per cow is 500 litres below target?

Financial risk

Risk associated with movements in input costs and output prices. What if the projected milk price falls, what if grain prices increase or what if interest rates rise?

Economic risk

Risk within the economy over which you have no control. What if government policies change? What if consumer demand declines due to new taxes or a substitute product entering the marketplace?

Sensitivity analysis

It is essential to quantify each risk factor independently and also check the impact on our business when more than one risk factor is varied.

What if production per cow changes 5% or 10%. What if production fell 5% and grain prices rose by $100 per tonne?

Shown below is a simple sensitivity analysis exercise. The QDAS average gross margin for 2010-11 was $330,515. The table shows the variation in this gross margin if milk receipts and variable costs fluctuate from 0 to +/-10%.

		Changes in Milk Receipts				
		-10%	-5%	Same	5%	10%
Changes	-10%	-29,024	3,979	36,981	69,984	102,986
in	-5%	-47,515	-14,512	18,491	51,493	84,496
Total	Same	-66,005	-33,003		33,003	66,005
Variable	5%	-84,496	-51,493	-18,491	14,512	47,515
Costs	10%	-102,986	-69,984	-36,981	-3,979	29,024

Planning for risk

Managing risk is not complete unless the manager formulates a strategy to deal with variations in income and expenses, which were examined in the sensitivity analysis, before they happen. As a change appears imminent, then the manager will have the confidence to implement a new strategy.

If your farm plan and budget have been developed under the assumption that grain prices stay at $250/t, you need to have strategies identified that you will implement if grain prices rise to $400/t.

Concentrates cannot be simply dropped from the diet, since they play an important role in minimising weight loss, boosting energy for milk protein synthesis and balancing the ration. The strategy needs to consider what supplement to feed, how much and the grain purchasing policy for the farm.

Risk preference

Knowing how to position your business in the risk environment will depend on what your risk preference or attitude to risk is. Your preference can be:

- Conservative
- Moderate
- Aggressive

The answers to the following questions can highlight your risk preference.

- Where is your business placed on the business lifecycle? Someone in a rapid build up phase is likely to have an aggressive risk preference.
- What is your current debt level? Low debt often shows a conservative risk preference.
- When do you want to retire? Someone who is about to retire is likely to have a conservative risk preference.

Further information

Contact the DAFF Customer Service Centre by
Phone 13 25 23, or
Email callweb@daff.qld.gov.au

More technical notes and spreadsheets that can assist with planning, budgeting and risk management can be found at: www.dairyinfo.biz

The project is funded and supported by the Department of Agriculture, Fisheries and Forestry and Dairy Australia.