

STRATEGIC RISK MANAGEMENT FACT SHEET

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Risk management for greater success in uncertain times

Effective risk management is vital to maintaining farm sustainability and profitability for growers in the face of climate risk and rising production costs.

KEY POINTS

- Risk management is an essential part of all aspects of farm management and key to ensuring the wellbeing of growers, their families and their businesses.
- Identifying, assessing and ranking risk helps focus resources and management decisions on the risks within growers' control that could have the greatest impact on a business.
- Risk management is an ongoing process; identifying risks, taking actions and assessing outcomes need to be monitored and reviewed regularly.

Some managers are prepared to take greater risks than others. Irrespective of attitude, sensible risk management involves identifying, assessing and ranking risk. In so doing, appropriate strategies can be employed to minimise the likelihood of the event occurring.

Outcomes of action taken to minimise risks need to be regularly reviewed.

Risk management can be viewed in relation to day-to-day actions and at a more strategic level.

For example the choice between applying a herbicide to a crop today or delaying until later germinations have occurred, is the management of day to day risk. In making this decision,

consideration about the benefits/risks of early versus late weed control would need to be considered. However, the decision not to use glyphosate as a knockdown herbicide due to concerns about herbicide resistance is a more strategic example of risk management.

The GRDC Low Risk Farming Initiative provides agronomic, financial and marketing information about low risk farming. This information, available from the GRDC website, is designed to assist the decision-making process required to achieve the best possible outcomes for a cropping season.

This fact sheet addresses the process of risk management (see Figure 1).

FIGURE 1 THE PROCESS OF RISK MANAGEMENT

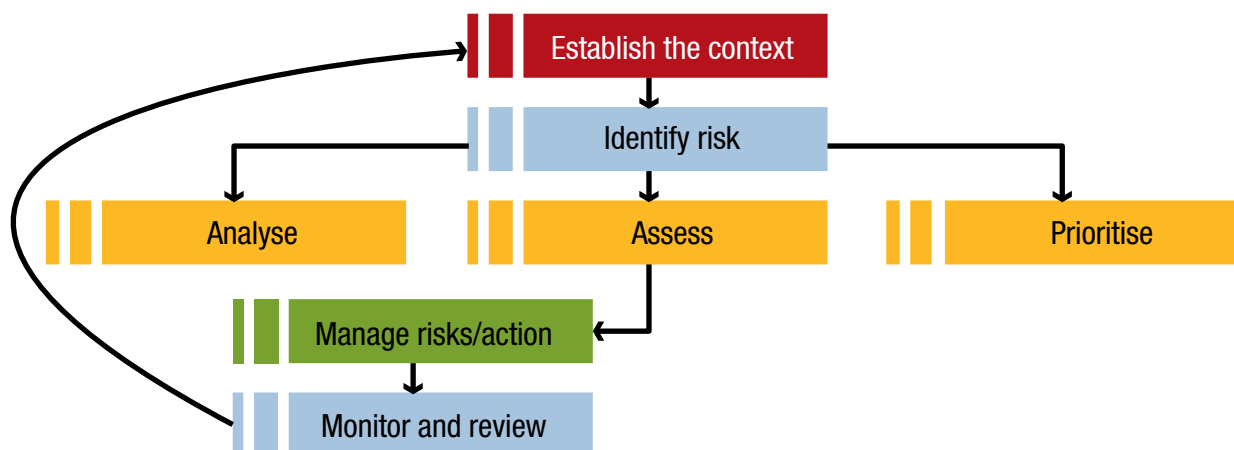


TABLE 1 SEVEN KEY SOURCES OF RISK

1. Commercial and legal relationships	Contract and leasing arrangements	Land leasing	4. Political circumstances	Government assistance	Natural disaster relief		
		Machinery leasing		Financial assistance			
		Share farming		Foreign country political environment	Suppliers		
		Supply contracts		Buyers			
		Employment contracts		Industry Competition	Mining industry rights to mineral exploration and mining		
		Bank mortgages			Other production sectors – timber, horticulture, viticulture		
		Other agreements		Government policy	Taxation and levies		
	Business structures	Companies		Fiscal policy			
		Partnerships		Monetary policy			
		Sole traders		Lobby groups	Environmental		
		Trusts			Animal welfare		
					Land rights		
		2. Economic circumstances (domestic and international)		Financial factors	Exchange rates	5. Technology and technical issues	Information provision
	Interest rates				Information accessibility		Public domain
Debtors/slow payers	Equipment and machinery reliability		Machinery				
Cashflow			Fixed structures				
Markets	Market regulation/deregulation		Maintenance accessibility	Electrical/electronic equipment			
	Prices						
	Supply situation						
	Quality assurance (QA)		6. Management skills and implementation	Management	Experience		
	Competitors			Strategic			
Substitutes	Technical						
Stability	Financial						
3. Environmental factors	Weather events		Low rainfall, drought	Occupational health and safety	Internal people management		
			Frost		External people management		
			Floods, excessive rain		Chemical		
		Windstorm	Mechanical – standing				
		Temperature extremes	Mechanical – moving				
		Hail	Fixed structures				
		Tides	Storage				
			Electrical				
	Fire	Capital assets	Gas				
		Crops and livestock	Quality management		Quality procedures		
				Quality standards			
	Biological pests and diseases	Pest – crops	Security	Theft			
		Pest – stored grain		Arson			
		Pests – livestock	7. Human resources	Owner/manager	Personal expenditure		
Disease – crops		Family relationships					
Disease – livestock		Personal goals					
	Other income						
Current environmental conditions	Salinity	Succession planning					
	Erosion	Employees					
	Water table		Other				
	Soil acidity						
	Soil suitability						
	Stock water						
Earthquake							

■ Use Table 1 as the basis of a risk audit. Additional factors may need to be included for a particular business situation.

Why manage risk?

In risk management workshops it has been noted that people generally worry most about risks that are unlikely to happen.

The advantages of including risk management as part of your business management can include:

- decisions are based on logically formed information and not 'gut feel';
- success and failure of decisions can be tracked and reviewed;
- effects of how the business is being managed can be demonstrated to third parties, such as banks; and
- compliance with government legislation.

Executing a risk management audit can help target management towards risks within a grower's control that are most likely to occur, and that would have the greatest negative impact on the business if they did occur.

Seeking advice, for example from trained agronomists, financial specialists and lawyers, is a wise option as they can provide expertise and a more objective view of a business.

Identifying risk

Sources of risk that can affect a farming business can be divided into seven main categories (see Table 1). Within these categories there are multiple sub-risks, many of which are common to all farming businesses.

While some of these issues relate to the business as a whole, such as business ownership and succession planning, others may need to be assessed in relation to individual enterprises. For example, exchange rate fluctuation is not a risk for feed oats sold on the domestic market but is a risk for grain crops sold on the international market.

Risks associated with government policy could relate to changes in

taxation, or agriculture's involvement in the Carbon Pollution Reduction Scheme (CPRS) or grants through government interest rate subsidies to manage drought, all of which would affect the whole business. Another example of government risk is legislation to ban the use of a particular grain fumigant, which might affect cereal enterprises but not those of other grains or livestock-based enterprises.

Many risks will have direct financial implications, while others may affect the operation of the business, which in turn can have indirect negative financial implications.

For example, if a buyer fails to pay for a grain delivery this has a direct financial impact. If herbicide drifts on to a neighbour's paddock there may be an insurance claim and an increase in premiums: time and energy will need to be diverted to dealing with this problem, and the weeds may also need to be re-sprayed.

TABLE 2 RATINGS FOR LIKELIHOOD OF A RISK OCCURRING

Rare	1
Unlikely	2
Moderate	3
Likely	4
Almost certain	5

TABLE 3 RATINGS FOR THE CONSEQUENCE OF A RISK OCCURRING

Insignificant	1
Minor	2
Moderate	3
Major	4
Catastrophic	5

Assessing the potential impact

Once all the potential risks have been identified each should be ranked by its potential to occur. A simple rating system that allots the highest rating to the strongest likelihood, is a useful method of assessing risk. For example, most farmers in Australia would rate the likelihood of an earthquake putting their business at risk as rare (1); however, a farmer in New Zealand might rate this as moderate (3).

For each risk it is necessary to rate the consequence of the risk occurring. Again, a simple one-to-five rating system can be applied, with risks that have a greater consequence receiving the greatest rating (see Table 3).

Before some risks can be rated it might be necessary to carry out some specific analysis.

Actions to manage risk need to be assessed in relation to the business:

- balance sheet (assets/liabilities);
- equity (net worth/assets);
- current budget; and
- cashflow, including actuals to date.

Banks are interested in the long-term future for the farm and so are

keenly interested in how risks are being managed. Risk for a business is potentially a risk for the lender. Banks do not want to be farm managers or take over the farm, but are starting to tighten their lending strategies.

Within budgets, it is a good idea to identify best, average and worst-case scenarios. Banks work on averages but will look at sensitivities to various factors.

A sensitivity analysis is a useful tool for assessing questions such as 'Is the business more at risk from a change in interest rate, commodity price, input costs or production?' A sensitive analysis could be used for each aspect or a combination.

Tables 4 and 5 both demonstrate the impact of changes in fertiliser price and grain price on a low-production and a higher-production farm. In both cases the gross margin is more sensitive to fluctuations in grain price. It must be remembered that gross margins do not take into account overhead costs, loan repayments or the size of the operation. They only provide a comparative financial analysis between farm enterprises.

TABLE 4 SENSITIVITY OF A LOW-RAINFALL PRODUCTION SYSTEM TO CHANGES IN WHEAT PRICE AND FERTILISER PRICE (GROSS MARGIN)

Average yield	Growing season rainfall	Fertiliser rate	
0.8t/ha	180mm	42.5kg/ha	
Fertiliser price \$/t	Wheat price \$/t		
	200	250	300
500	\$60	\$100	\$140
850	\$45	\$85	\$125
1200	\$30	\$70	\$110

TABLE 5 SENSITIVITY OF A MEDIUM-RAINFALL PRODUCTION SYSTEM TO CHANGES IN WHEAT PRICE AND FERTILISER PRICE (GROSS MARGIN)

Average yield	Growing season rainfall	Fertiliser rate	
4t/ha	235mm	112.5kg/ha	
Fertiliser price \$/t	Wheat price \$/t		
	200	250	300
500	\$635	\$835	\$1035
850	\$596	\$796	\$996
1200	\$557	\$757	\$957

The impact of financial or other factors needs to be worked through. Scenarios can be a useful method of assessing the chain reaction of events and assessing their financial impact to the business if they do occur.

For example, what is the potential financial loss due to a tractor or harvester breaking down during the crucial periods of seeding or harvest, compared to the cost saving of not servicing the equipment?

Prioritise and treat

By multiplying together the rating for the consequence of the risk and the likelihood of its occurrence – a risk index can be produced. Risks with the largest risk index are those that should be prioritised for action.

Once a risk assessment is completed, it is recommended that management focuses on the top dozen risks. Management strategies will be determined by the risk but could include:

- greater focus on the parts of the business that generate the most profit;

- diversification of farm enterprises and investments;
- improving management skills;
- taking time out from work to spend with spouse and children;
- use of improved farm management planning; and
- insurance.

While following sound risk management practices does not fully guarantee business success, it will greatly improve its likelihood. **Good risk management provides a greater chance for farming success in uncertain times.**

Useful resources:

- **GRDC Low Risk Farming Initiative** www.grdc.com.au/director/events/grdcpublications/lowriskfarming
- **Partners in Grain** www.partnersingrain.org.au
- **A guide to succession – sustaining families and farms**, available from Ground Cover Direct www.grdc.com.au/bookshop, free phone 1800 11 00 44, ground-cover-direct@canprint.com.au
- **Management guides including *Managing Frost Risk***, available from Ground Cover Direct www.grdc.com.au/bookshop, free phone 1800 11 00 44, ground-cover-direct@canprint.com.au

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