Irrigation Farm Business Plan

Plan2Farm workbook

plan2farm

Acknowledgment

Plan2Farm is supported by the Victorian Government's Department of Environment, Land, Water and Planning, and Regional Development Victoria.

The content within this Workbook draws on the National Australia Bank book 'Farm Business Planning: Your Bigger Picture' by Nigel McGuckian and Mike Stephens.

The North Central Catchment Management Authority wishes to acknowledge the support and guidance provided by the Plan2Farm Alliance, and Project Steering Committee in the establishment and implementation of Plan2Farm.

Acknowledgment of Country

The Plan2Farm project team acknowledges Traditional Owners within the region, their rich culture and spiritual connection to Country. We also acknowledge the contribution and interest of Aboriginal and Torres Strait Islander people and organisations in land and natural resource management, and pay respects to Elders past, present and emerging.

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Part 1: What to expect and what you need to do

What you can expect from Plan2Farm

The Plan2Farm program is all about spending some time looking at where your business is situated now and where you want it to be in the future.

It's good practice to take a step back from the day-to-day operations and think about where your business is heading and what you want to achieve, both for your farm business and personally.

The Plan2Farm program provides this opportunity and encourages you to discuss your future plans with the key people within your business. The program will help you identify some key actions to help you achieve your medium-to-longer-term goals. A key characteristic of a successful business is having a plan that guides decision making and tracks progress towards business goals.

The aim of completing the Irrigation Farm Business Plan is to:

- Help you think and talk about the future of your farming business with family and others involved in the business
- Prompt you to think about your business and personal goals and share these with those in your business
- Help you to make decisions that are more informed and aligned to your longer-term goals.

Listen to our podcast

We strongly encourage you to listen to this podcast explaining what to expect from participating in the Plan2Farm program. This should help you decide if the program is for you and prepare you for the upcoming visit from an independent advisor if you choose to take that option.
To listen visit https://tinyurl.com/Plan2Farmpodcast

What is involved?

Participating in Plan2Farm will help you think and talk about the future of your business. It is designed to generate discussion, to provide information to help you make informed decisions, and to prompt thinking about the whole farm business, including **where the business is now, where it is heading and what you want to achieve.**

Developing your Irrigation Farm Business Plan is an independent and confidential process that will provide most value if all the key decision makers for the farm are involved.

The main benefit that's come from it is that the process initiated discussions among the family.

The Irrigation Farm Business Plan can be tailored to the needs of any farming family. Some questions and prompts will be less important to you than others, but it's important not to avoid the difficult questions. Key questions to think about are listed below.

Key questions:

Who is involved in the business now and do you intend to bring other people into your farming business?

Are you optimistic about farming over the next 10 years?

Do you see potential for modernising the irrigation system on your farm?

Feedback from farmers who have gone through the Plan2Farm process.

It forced us to sit down and examine our business and look at what opportunities exist to move forward in a really challenging landscape.

Putting timelines on actions and creating the discipline to consider actions rather than just drifting.

It helped to remove the emotion from the decision making; gave the thought process clarity.

It has given me direction for my farming business and is helping me with my future planning.

How to participate

You can decide to participate in Plan2Farm in two ways:

1. **On your own**
   Take yourself and family members through the Irrigation Farm Business Plan
2. **With help from an independent advisor**
   Such as a farm business consultant, accountant, rural financial counsellor, or Agriculture Victoria employee

To get the most from the Irrigation Farm Business Plan it's recommended you consider engaging an independent advisor. The advisor needs to be somebody you can trust and who has the expertise that can help you to:

- Develop or update your strategic business plan to help set direction and identify some key actions that will improve your business
- Provide a sounding board for your options and plan and help keep you on track
- Access additional support programs and activities to improve your skills and knowledge
- Identify and engage qualified experts for specialist advice, such as irrigation layouts, succession planning, financial planning and counselling services.

Getting input from an independent, experienced perspective was the most valuable benefit.

To be able to discuss 'my dream' with an independent person to give a clearer picture.

Talking over things with someone external away from farm, a fresh set of eyes.

It's a good idea to commit to a **follow-up visit or meeting** with those who have helped you with your plan. That might be in 6 or 12 months' time, whatever you feel is appropriate.

Committing to some follow-up can provide further support and give you some added incentive to get on with completing some of your actions. The extra level of accountability with the follow-up can drive the "doing" and progress you closer to achieving both your personal and business goals.

Getting started

If you choose to have a visit from an independent advisor the following will help you prepare for the visit:

- **Read the Irrigation Farm Business Plan** and circle the questions you want to explore in detail.
- Think about the **questions you want to explore** and talk about them with family and/or a trusted friend.
- Think about **who should be involved** from your farm and **make sure they can attend** the meeting.
- **Locate and familiarise yourself with any farm records** required to answer questions; include 3-5 years of records where possible (check out Part 2 for tables to guide you on what figures to get together).
- **Revisit any whole-farm plans**, particularly consider any future plans such as diversification, increasing or decreasing production, investment in irrigation infrastructure, or selling property/relocating.
- **Understand what your water use has been and/or is likely to be**, how many delivery shares you hold/would like to hold, and how much high and low-security water entitlement you need for the future.
- **Consider a 'vision' for your farming business** (financial, social, environmental etc.)

The Irrigation Farm Business Plan stimulates thinking so positive actions can be taken. Different people will want to do different things, so everyone involved in the farm business should be encouraged to have their say and be honest and open about what they want (and don't want).

Any questions contact us

Telephone 03 5448 7124
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Part 2: The Irrigation Farm Business Plan - Your farm's plan

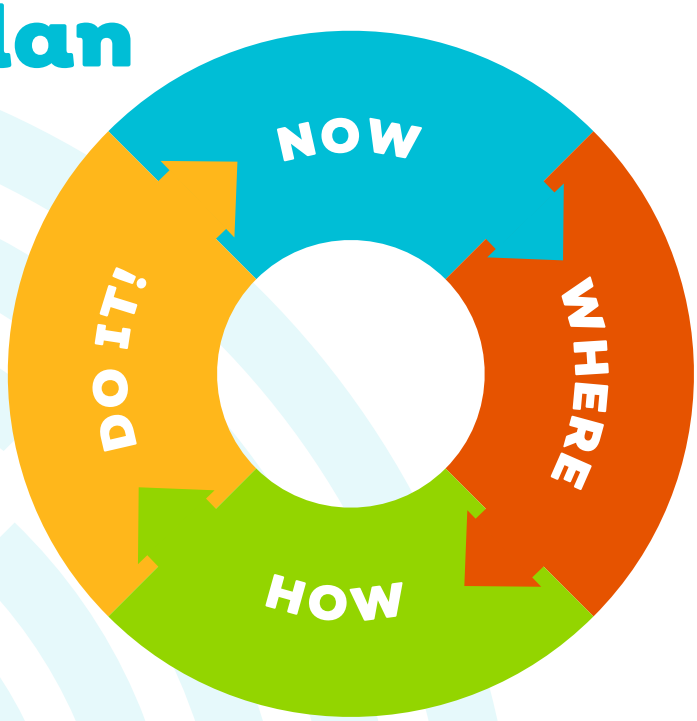
Developing a plan

The process of planning can be summarised by answering three questions:

- What is the current situation in our business **NOW**?
- **WHERE** do we want to get to?
- **HOW** can we get from here to there? (Action Plan)

The fourth step in the process is taking action:

- **DO IT!** Being clear about who and when, and about measuring how well it has gone (implementation and reviewing the Plan)
- Then we do it all over again.



There are a number of techniques that can be used in each of the four steps of the business planning process. These techniques can be learned - some of them you probably use already. People find the process of decision making becomes easier once they have acquired a number of these skills. Some of these include:

Benchmarking
How are we going compared to others? What can we learn from them? (Now)

SWOT Analysis
Know your Strengths, Weaknesses, Opportunities, Threats (Now)

Vision, Mission
(Where)

Goals and Action Plan
(How)

Implementation
Defining tasks, responsibilities, tracking progress (Do It)

Now - your current farm business

A shared understanding of where your farm business is "now" and its underlying trends is really helpful in steering your farm business to where you want it to be. It is also helpful to use some of these indicators as ongoing measures to make sure you are on track. The "now" can also help you identify strengths, weaknesses, opportunities and threats that can help you develop actions that will lead to your longer-term goals.

Farm physicals

List the physical characteristics of your farming operation in the table below. Circle the status that best describes the different physical characteristics of your farm operation.

Characteristic	Description / data	Status (Please tick)
Land area – irrigation layout (ha) – dryland (ha)		Increasing ○ Stable ○ Reducing ○
Soil type and capability		Increasing ○ Stable ○ Reducing ○
Farm productivity – milk production (L/cow) – crop yield (t/ha)		Increasing ○ Stable ○ Reducing ○
Livestock (no. head) – dairy – beef – sheep		Increasing ○ Stable ○ Reducing ○
Crop area (ha) *Irrigated:* – pasture – other crops		Increasing ○ Stable ○ Reducing ○
Dryland: – pasture – other crops		Increasing ○ Stable ○ Reducing ○
Machinery – value ($) – age (years)		Increasing ○ Stable ○ Reducing ○
Labour – number employed – any skill gaps		Increasing ○ Stable ○ Reducing ○

Financial position

Circle the financial indicator that best describes the performance of your business, based on the performance of your farm averaged over the last 5 years.

	Indicator	Unit	Weak	Moderate	Strong	My farm (Av. over 5 years)
Business health	Disposable income per family (off-farm income included)	$'000	<60	60-120	>120	
	Net worth per family	$'000	<1,000	1,000-2,000	>2,000	
Business drivers	Gross farm income	$'000	<500	500-1,000	>1,000	
	Operating costs	Farm operating costs/gross farm income %	>60	50-60	<50	
	Farm size	Land + water value $'000	<800	800-1600	>1600	
	Debt servicing (interest/lease/rent)	Financing costs/total income including off-farm %	>15	7-15	<7	
	Machinery depreciation	Market value machinery/farm income ratio	>1.2	0.8-1.2	<0.8	
	Non-farm income	Net non-farm income/family $'000	<30	30-50	>50	

Terms explained

- **Disposable income per family:** Total amount of money after farm operating costs have been met, machinery has been maintained, interest, rent and lease commitments have been met. The annual profit made from the farm and non-farm gross income. Divided by number families. Available for meeting living expenses, investing, paying off debt and paying tax.
- **Net worth per family:** Value of farm plus non-farm assets less total liabilities. Divided by number of families. This is strongly influenced by life stage of the family/age.
- **Gross farm income:** Income from all farm enterprises, cropping, livestock, dairying, irrigation, and dryland.
- **Operating costs:** Variable costs plus overhead costs excluding interest, capital repayment/purchase, depreciation and any payments to owners e.g. superannuation payments.
- **Debt servicing:** Finance costs are interest on all loans, bank fees, machinery leases or hire purchase and lease on land (rent). This is divided by gross farm income plus off farm income.
- **Machinery depreciation:** A clearing sale value is put on all machinery, vehicles and equipment. This figure is divided by gross farm income to get a ratio.
- **Non-Farm income:** Net income received from non-farm activities including wages, salaries, contract services, and off-farm investments.

Irrigation health check

Questions in this section have been designed to get a sense of **how well you are using your irrigation water** and **how exposed you are to the water market**.

It is not a detailed irrigation efficiency analysis but will provide some guidance on the priority areas of focus in relation to your use and access to irrigation water.

How well are you using your water?

Key questions:

How many hectares of irrigated land do you farm?

How many delivery shares are attached to your farm?

How many service points are on your farm? (Please fill in table below)

Type of service point	Local read	Remote read	Remote operate
Number of service points			

What type of irrigation infrastructure do you have on farm? (Please fill in table below)

Irrigation type	Number of ha	Your overall rating of your irrigation infrastructure	Comments (i.e. 80% good 20% needs improvement)
Border check flood irrigation		Poor ○ ○ ○ ○ Excellent	
Pipe and riser		Poor ○ ○ ○ ○ Excellent	
Overhead spray (centre pivot or lateral move)		Poor ○ ○ ○ ○ Excellent	
Fixed sprays		Poor ○ ○ ○ ○ Excellent	
Sub surface drip		Poor ○ ○ ○ ○ Excellent	
Other (please specify)		Poor ○ ○ ○ ○ Excellent	

Key Questions:

What flow rate (ML/day) can you achieve from your service point?	
What flow rate (ML/day) can you operate your farm channel system?	

On average how long does it take to water a bay? 0-4 hrs ○ 4- 8hrs ○ 8 to 12 hrs ○ > 12 hrs ○

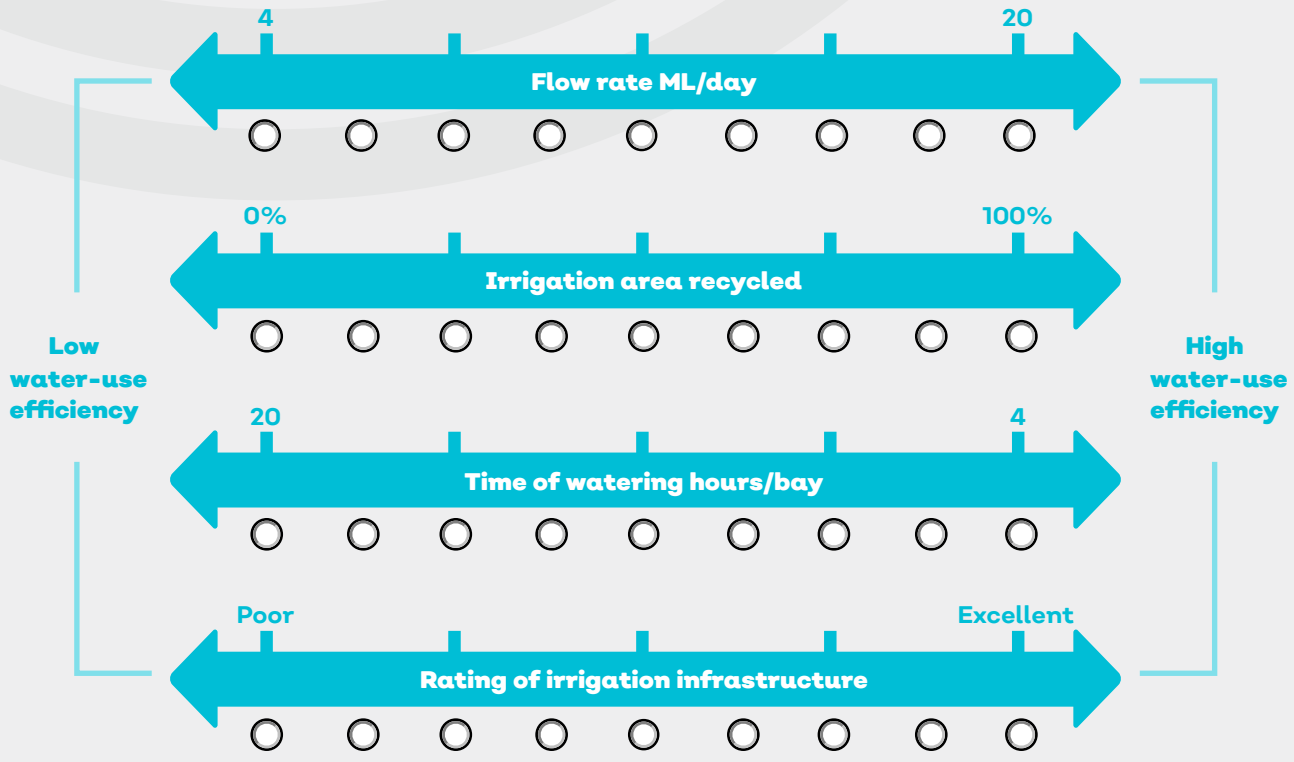
Do you have any automation? Yes ○ No ○

If yes, how many hectares is covered by the automation? Number of ha:	
What % of irrigation area is automated?	
What % of the farm can be captured by an irrigation tailwater re-use dam?	
How much gross income do you earn per ML? ($/ML)	

(To work this out: How much of your farm income was produced from irrigation in the last financial year? Divide this by the number of ML used in that financial year)

After answering the questions above, how do you rate your use of irrigation water?

To assist you to self-assess, mark your position against the four factors that affect how well you use your water.



How exposed are you to the water allocation market?

Key questions:

How much water do you own? (Please fill in table below)

Water source	Volume (ML)
High reliability water share (HRWS)	
Low reliability water share (LRWS)	
Groundwater (deep lead)	
Groundwater (shallow)	
Other	

What was your total water use over the past five years? (Please fill in table below)

Year	2015/16 Average to dry	2016/17 Wet	2017/18 Average	2018/19 Dry	2019/20 Very dry
Allocations	**Vic Murray** 100%	**Vic Murray** 100%	**Vic Murray** 100%	**Vic Murray** 100%	**Vic Murray** 66%
	Goulburn 90%	**Goulburn** 100%	**Goulburn** 100%	**Goulburn** 100%	**Goulburn** 80%
	NSW General Security 23%	**NSW General Security** 100%	**NSW General Security** 51%	**NSW General Security** 0%	**NSW General Security** 0%
Average market water price[1]	$208/ML	$63/ML	$129/ML	$438/ML	$576/ML
Your Water Use (ML)					
Your water sales (ML) (if any)					

[1] Weighted average price per ML – Murray Irrigation Limited Exchange

Key Questions:

	Yes	No
Do you have price triggers for when you will use water or when you might sell water?	○	○
Do you work out gross margins on your crops to assist with your water-use decisions?	○	○

How much water would you use when water is at different market prices ?
Provide your best estimate in the table below.

Water price ($/ML)	Hectares irrigated (ha)	Volume of water used (ML)
$100 or less		
Between $100 and $200		
Between $200 and $300		
Between $300 and $400		
Greater than $400		

At what price point do you stop buying allocation water (your maximum affordable price)?

At what price point do you start selling allocation water?

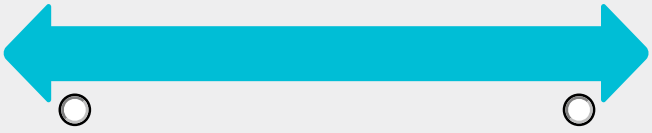
Do you have a water-purchasing strategy with some rules that guide your decisions?

	Yes	No
Do you proactively use carryover to manage some of your water risk?	○	○

After answering the questions above, how do you rate your exposure to the allocation water market?

Mark your position on the below diagram.

Low exposure to water allocation market
Water ownership equal to annual average use

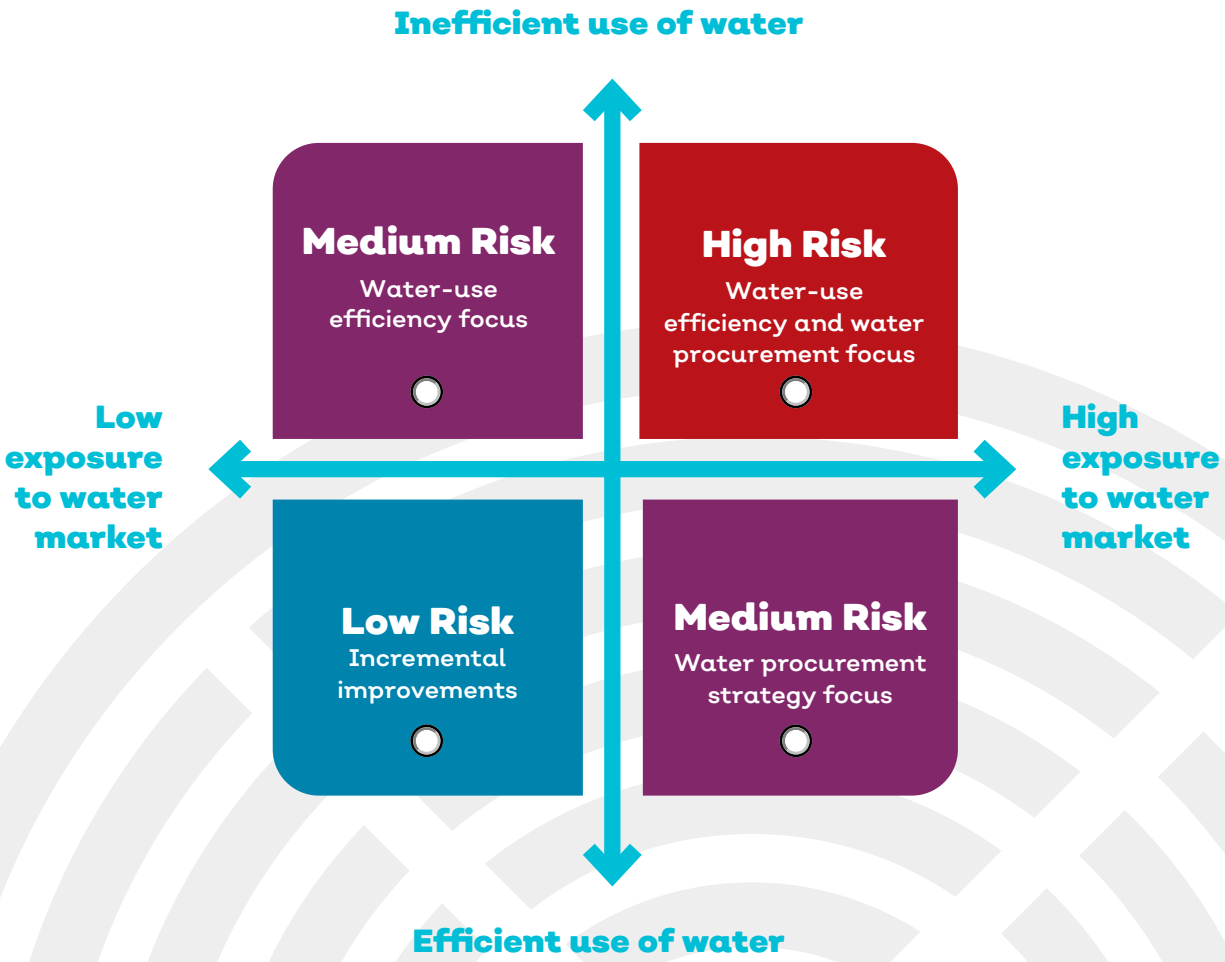


High exposure to water allocation market
Water ownership < 50% of annual average use

Mitigating your water risk

Based on your rating of your water-use efficiency and exposure to the allocation market, where do you sit on the risk matrix below?

Depending on your particular situation there may be a need to look at how you can improve your water-use efficiency or implement strategies to manage your exposure to the water market or both.



The table below provides some suggestions on what you can consider depending on your situation.

High, Medium and Low risk assessment in terms of water-use efficiency and exposure to the water market.

Risk assessment	Description	Potential actions
High Risk - Low efficiency and low market exposure **Water-use efficiency and water procurement focus**	• Water ownership - < 50% of annual average use • Water-use efficiency: – Flow rates < 10 ML day – < 60% irrigation area recycled – Time of watering > 12 hr/bay – Rating of irrigation infrastructure – average to poor	• Look at practices to increase water-use efficiency – Consider a whole-farm plan – Engage an irrigation designer to identify areas of improvement • Need to look at strategies/action to reduce exposure to the water market (leasing, utilising carryover, develop trigger points for water purchase/sell decisions)
Medium Risk – High efficiency but high market exposure **Water procurement strategy focus**	• Water ownership - < 50% of annual average use • Water-use efficiency: – Flow rates > 15 ML day – 60% to 90% irrigation area recycled – Time of watering < 6 hrs/bay – Rating of irrigation infrastructure – Good to excellent	• Need to look at strategies/action to reduce exposure to the water market (leasing, utilising carryover, develop trigger points for water purchase/sell decisions)
Medium Risk – Low efficiency but low market exposure **Water-use efficiency focus**	• Water ownership – equal to annual average use • Water-use efficiency: – Flow rates < 10 ML day – 60% to 90% irrigation area recycled – Time of watering > 12 hr/bay – Rating of irrigation infrastructure – average to poor	• Look at practices to increase water-use efficiency – Consider a whole-farm plan – Engage an irrigation designer to identify areas of improvement
Low Risk – High efficiency and low market exposure **Incremental improvements**	• Water ownership – equal to annual average use • Water-use efficiency: – Flow rates > 15 ML day – > 90% irrigation area recycled – Time of watering < 6 hrs/bay – Rating of irrigation infrastructure – Good to excellent	• Keep informed about new technologies and determine if they can be implemented on your farm

Please note these description benchmarks are for border check irrigation systems.

SWOT analysis for your business

After working through where your current business is 'NOW' you will be in a better position to fill in your own SWOT Analysis - Know your Strengths, Weaknesses, Opportunities, Threats. This can then help you identify actions to implement in a plan to achieve your longer term vision.

Strengths

What do we do well?

Weaknesses

Where can we improve?

Opportunities

What new things can we do?

Threats

What are our risks?

The future - Where are you headed?

Consider these critical questions when looking at your future.

Key Questions:

	Yes	No
Are you enjoying what you are doing?	○	○
Can you sustain the effort?	○	○
Is your family supporting what you are doing?	○	○
Are you living a lifestyle you are happy with?	○	○
Will you have enough to retire on?	○	○
Succession plan – is it in place? Or up to date?	○	○

If you answered no to any of these questions you should consider whether you can do something to manage change, or whether it's outside of your control. Pondering this question is an important stepping stone to figuring out where you want to get to with your business and what you need to do.

Vision setting

Some people find it helpful to think about where the business has come from, where it is now, and then where it is you want it to go. Others may want to draw a picture of how it will look in 10 years' time. It's hard to know if you are on the right track if you don't know where you are going.

Having a vision for the business can provide that direction and focus. It can also be a strong motivator for you and others involved in the business.

Everyone's vision will be different, but one example is: "To develop the farm so that we can have two holidays per year and have enough money to retire in 15 years' time". To help form your vision, try answering the following questions.

Key questions:

Wouldn't it be great if...

Won't it be great when...

The things that are important to me are...

My ideal farm would enable me to...

Your vision:

Once you have discussed your vision with the other business owners, you can begin to create a shared vision that you can all agree on and commit to. If you find it difficult to create a shared vision keep trying or get some help from an independent advisor.

Mission

The mission is a statement of what you are in business for.

The statement begins with "We are in the business of". For example: "We are in the business of growing premium food, while improving our land and environment, creating a valuable farm, and generating enough income to support our lifestyle".

Some prompts below may help clarify your mission.

Key questions:

Type of production e.g. cereals, milk, fruit, meat or more generic – food and fibre

Lifestyle you want

Production quality you are seeking

Your position on environmental care

Your mission:

Goals – to reach your vision

Business goals help determine what actions you take today to obtain the vision you want tomorrow. Goals should be SMART: Specific, Measurable, Agreed, Realistic and Time constrained.

In order to be realistic about setting goals, think hard about whether your business is growing. Or is it treading water and just paying wages?

Consider how viable your business will be in 10 years' time, and will this meet your goals?

Once you have clear and agreed goals you will find business owners will work together more cooperatively.

S SPECIFIC	Your goal is direct, detailed and meaningful.
M MEASURABLE	Your goal is qualifiable to track progress or success.
A AGREED	Your goal is agreed and aligned to your vision.
R REALISTIC	Your goal is realistic and you have the tools/and or resources to attain it.
T TIME-BASED	Your goal has a deadline.

Key questions:

What type of farming do you want to continue with?

When do you want to retire/transfer the farm to family members?

What is your financial position – is your timeline for retirement/transfer farm to family realistic?

Some prompts that may help you set some business goals are:

- What type of lifestyle or income would you like?
- What level of assets are you aiming for?
- When would you like to retire?
- What is a comfortable level of debt?
- Should you invest off farm?
- Do you have sufficient land to meet your business goals? If not, how will you address any shortfall? If you have an excess, what is your strategy?
- What volume of high and low-reliability water shares do you need?
- Are you growing your business adequately?
- Do you have room to expand in your current location?
- What are your skill needs and training program? Employ more/less labour?

Your action plan

Date:	
Family or farm name:	
Vision:	

In the following tables, list the **key goals that will progress you to your vision** (insuring they are S.M.A.R.T.) and the actions identified to achieve those goals. Also list the key people involved and when you intend to implement the action.

There could be a number of actions required to achieve a goal. Look to list those in the tables below.

For example, if a goal is to have a water risk management strategy in place by June 2022, the actions to achieve that goal may be: Action 1 – develop a longer term water budget to address long term water needs. Action 2 – assess different options on water procurement and seek some independent advice.

Summary of goals and actions

	Description
Goal 1	
Action 1	
Who?	
When?	
Action 2	
Who?	
When?	
Action 3	
Who?	
When?	

	Description
Goal 2	
Action 1	
Who?	
When?	
Action 2	
Who?	
When?	
Action 3	
Who?	
When?	

	Description
Goal 3	
Action 1	
Who?	
When?	
Action 2	
Who?	
When?	
Action 3	
Who?	
When?	

Notes

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