



Department of
**Primary Industries and
Regional Development**

Plan, Prepare, Prosper

Environmental risk, resource and production

Agenda

8.45 am	Coffee/ Arrivals
9.00 am	Introductions Managing risk
10.30 am	Morning Tea
10.45am	Solving problems and making decisions Business tools
12.30 pm	Lunch
13.00 pm	Top 25 farmers Reviewing Production and Management systems over time
14.30 pm	Afternoon tea
14.45 pm	Planning time
16.45 pm	Close

1. Planning to maximise yield – minimise loss.
2. To identify and plan for projected changes in weather patterns and in the physical resources that underpin the productivity of the farm enterprise.
3. Develop initiatives to manage observed and likely threats from the environment to farm enterprises.
4. Support the achievement of long-term economic viability of land under production.

**Production
Management**



**Business
Management**



Take time to work on our business

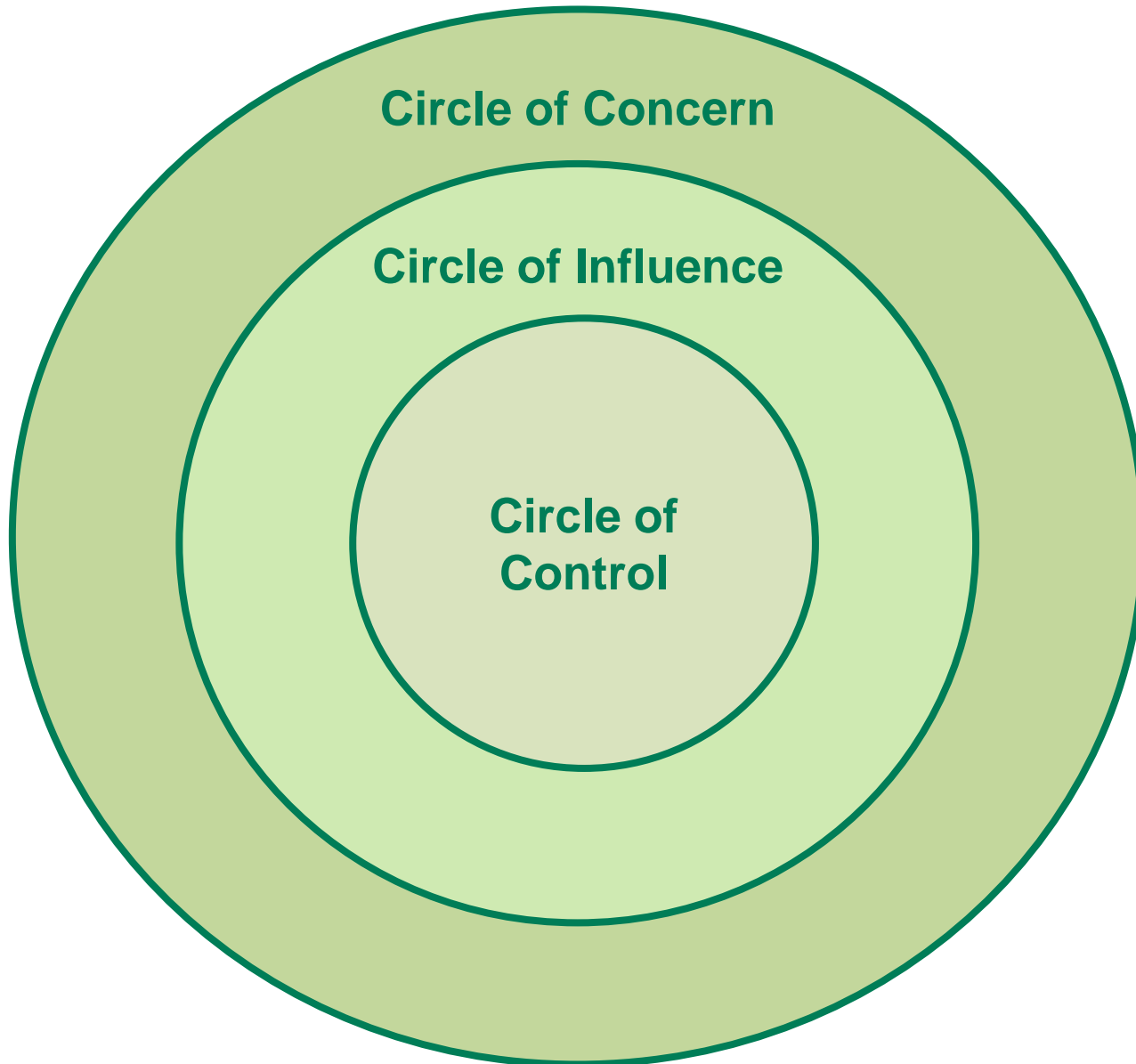


Three key questions

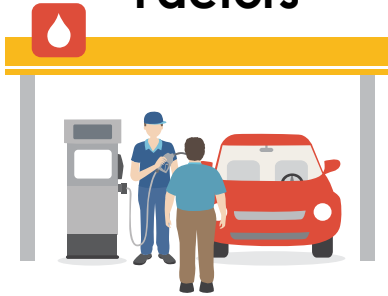
1. **Where is my business now?**
2. **Where do I need to take it?**
3. **What do I need to get there?**



What is in your circle of influence & control?



Critical Success Factors



Our Preferred Future



Current State
*Quantitative/
Qualitative*

← **The Gap** →
345 Km



Barriers



Introduction to Strategic Planning - Pyramid

Actions



Are the activities or tasks that need to occur to achieve complete the strategy (who, what, when & how)

Key Initiatives



Outline how you will accomplish your goals. *'What is the best pathway for us to achieve our goals?'*

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Defines how you plan to be successful. *'How your business will position itself to be successful?'*

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A statement describing your business in the future. *'What will my business look like in five (or 10) years time?'*



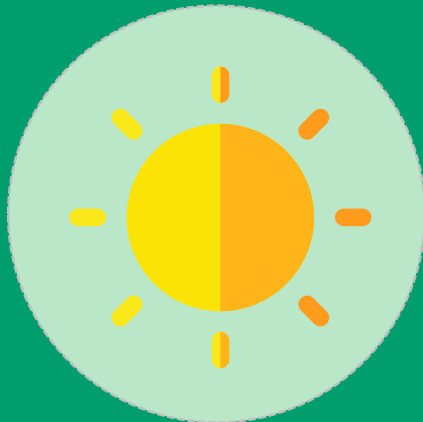
Areas of Risk



Wind



Earth



Sun



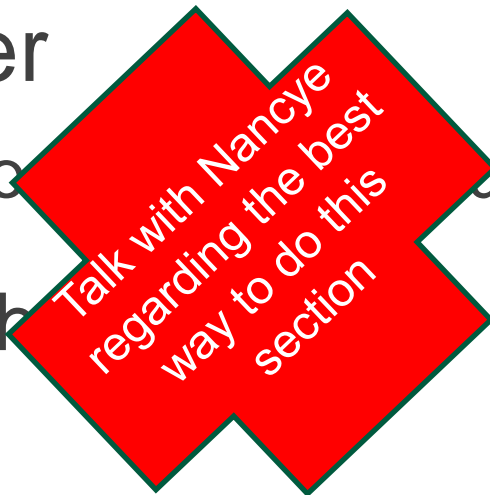
Water

Climate trends and change for WA – Overview

Ian Foster

Department of Agriculture and Food Western Australia

Drought Pilot workshop



Insert hyperlink

Likelihood	Very likely	Medium	High	Extreme
	Likely	Low	Medium	High
	Unlikely	Low	Low	Medium
		Minor	Moderate	Major
Impact				

Agricultural insurance is more appropriate for rare and extreme events. Claims made against insurance policies frequently add to the cost of insurance by increasing the costs of loss adjustment.

The cost of insurance also needs to be considered against the cost of alternative risk management practices.

Options of insuring Australian agriculture ABARES 2012

Prioritising insurance usage

Event description	How many times in the last 20 years?	Estimated impact on yield when it occurs	Estimated \$ cost	Cost / benefit of insurance	Cost / benefit management
Frost					
Bushfire					
Drought					
Flooding					

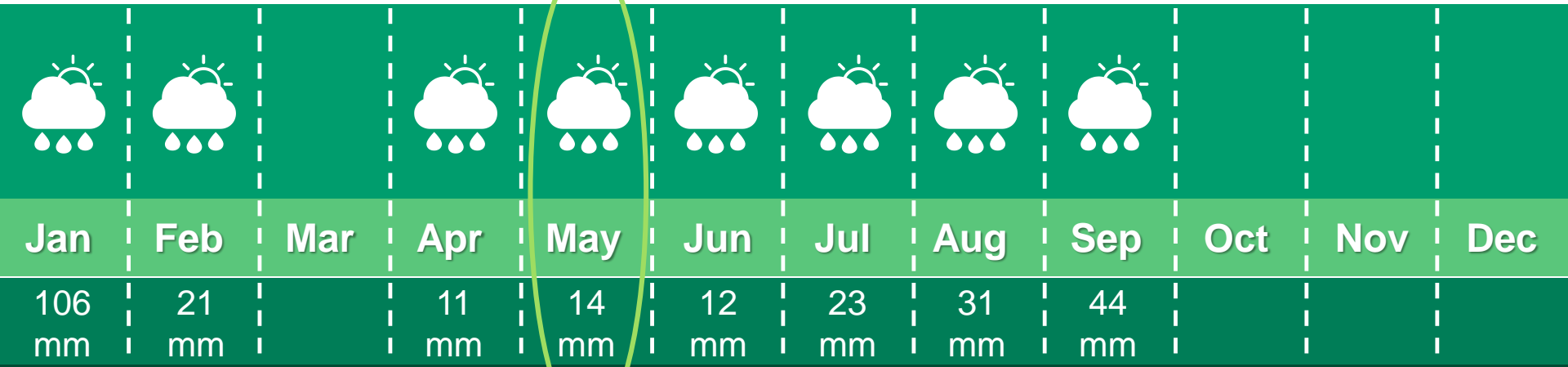
Event description	How many times in the last 20 years?	Estimated impact on yield when it occurs	Estimated \$ cost	Cost / benefit of insurance	Cost / benefit management
Frost					
Bushfire					
Drought					
Flooding					

1. Identify the problem clearly
2. Establish the desired outcome
3. Analyse the problem to determine it's cause
4. Generate alternative solutions
5. Evaluate alternatives
6. Implement decision
7. Follow up and evaluate results
 - Other outcomes
 - Other results
 - Benchmarking
 - Your analysis
 - (environment 1%)
 - Kris Cole
 - Record keeping



2006

GSR – 143 mm



Key lessons



Optimum sowing date



Follow-up rain



Value of soil moisture

Growing season summary



120 mm summer rain



14 mm break of season over two events 7 days apart

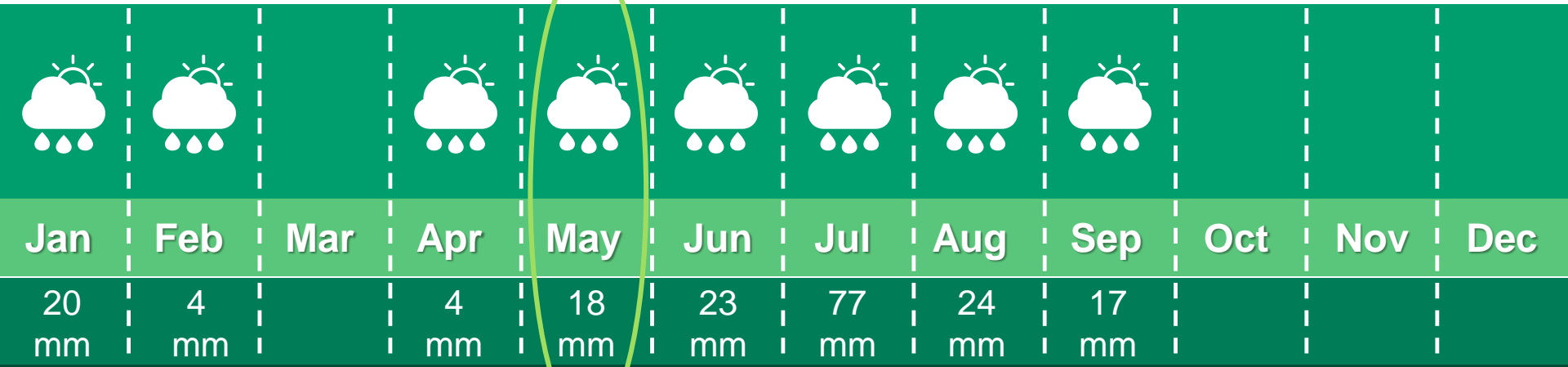


Follow up rain 21 days later



2007

GSR – 182 mm



Key lessons



Optimum sowing date

Growing season summary



24 mm summer rain



12 mm break of season



Follow up rain 26 days later



Critical Decision Dates

01

If it hasn't rained
XXX mm by XXX
then I will ...

02

If soil moisture isn't
XXX by XXX then I
will ...

03

If dam water
supplies are not at
XXX by ...

Give Known Facts the Greatest Weighting!



Your Tools

Weather

Statistical forecasting



Soils and amendments

Soil identification and constraints tool

Lime quality calculator

Lime Benefit calculator

Benefits of controlled traffic systems

Benefits of green manure strategies

Cropping

[Yield constraint calculator](#)

[Grain flowering calculator](#)

[Crop sequence calculator](#)

Horticulture

[Irrigation calculator](#)



- **Whole farm or property planning**
- **Cropping**
 - Back of the envelope
 - Yield prophet
 - Agricultural Production Systems Simulator
- **Dairy**
 - Cool Cows: www.coolcows.com.au
- **Livestock**
 - Pasture Growth Index
 - Pasture growth outlook: www.mla.com.au
 - Pastures from space: www.pasturesfromspace.csiro.au

SMS Weather Service

- WA Vegetable Growers can now receive a daily text message on their mobile phone with their local evaporation, rainfall and weather forecast at a time of their choosing.
- This service is provided by VegetablesWA at a fee of \$300 GST inclusive for the daily text messages. Please find the order form attached to subscribe.

- Decisions outside periods of stress.
- Plan what they will do if it's a:
 - Good year
 - Average year
 - Bad year
- Trial and control.
- Implement.
- Monitor and measure.
- Analyse and compare.
- Keep studying and looking:
 - Department of Agriculture
 - Consultants
 - Internet groups
 - Farmer groups

Do you think this is what the top 25 farmers do?





How closely do you resemble the top 25 farmers?

What are your gaps?

What will you decide to do
about your gaps?





	 Helpful	 Harmful
 Internal Origin	<ul style="list-style-type: none"> • Strengths • Political: • Economic: • Societal: • Technological: • Environmental: • Legal: 	<ul style="list-style-type: none"> • Strengths • Political: • Economic: • Societal: • Technological: • Environmental: • Legal:
 External Origin	<ul style="list-style-type: none"> • Strengths • Political: • Economic: • Societal: • Technological: • Environmental: • Legal: 	<ul style="list-style-type: none"> • Strengths • Political: • Economic: • Societal: • Technological: • Environmental: • Legal:

Can you apply continuous improvement to your business?

With the knowledge you have gained today what are your predictions for your business for the next two years? Would you ...

- Have written plans for
- Trial and / or implement
- Collect information on
- Analyse and compare



Maximising profits and minimising losses ...

Where will your environmental 1%'s be?



The phosphorous levels in many the soils is so high that no benefit will be achieved from applying fertiliser. In these instances acidity, low potassium and sulphur are more likely to be a problem.

Weaver and Wong (2011)

What would a top 25 farmer do with this information?

Broad acre farmers spend 20-30% of their budget on fertiliser — what would a 1% saving here mean?

1. Identify the problems.
2. Understand the constraints.
3. Understand the management options:
 - Stubble retention
 - Cover crops
 - Liming
 - Soil testing ...
4. Understand the changes over time.

- Describe how you use your water effectively to produce your product ...
- How much water do you need to produce your product?
- By what date do you need to know that you have enough water for your production plan?
- Will you need new sources of water?
- Can you find 1% more water?
- Explain how you will account for:
 - Evaporation
 - Increased demand of either plant or animal from increased temperatures.

Reviewing production and the extremes of seasonal variability

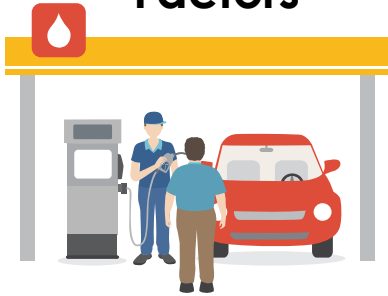
- Top 25 farmers watch for improvements in management systems.
- Know where they can cut back ...
- And know the cost and benefits of changing or maintaining a practice or activity ...
- Describe what will you do to plot your course between extreme seasons?

Is there a 1% opportunity in remnant vegetation and those bad paddocks?

- Enterprise consolidation
- Windbreaks
- Market assurance
- Carbon farming
- Family health and welfare

Can you use your remnant vegetation or those unproductive paddocks as an asset in your business?

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Sample strategic planning template

Our Vision

Where are we going?

Our Strategy

How we will position ourselves to be successful?

Our Purpose

What we do and why?

Our Values

Our principles that guide how we do things are?

Resource Management (focus area)

Risks

Resource Management (focus area)				
Risks				
Goal A <i>What are our targets - SMART?</i> <i>Ensure you measure results not activity.</i>	Critical Success Factors <i>What key conditions will help us to achieve one or more goals?</i>	Barriers <i>What existing or potential challenges may hinder us to achieve one or more goals?</i>	Key Initiative A1 <i>What are the strategies (broad activities) that we need to either:</i> 1) achieve a goal 2) create a critical success factor 3) overcome a barrier 4) all of the above	Action A1.a <i>What are the action steps that we need to do to achieve a strategy?</i> Action A1.b Action A1.c
			Key Initiative A2	Action A2.a Action A2.b Action A3.c



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Thank you

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