



Australian Government  
Department of Agriculture,  
Water and the Environment



Future  
Drought  
Fund



*Vic Hub*  
**DROUGHT &  
INNOVATION**

**VICTORIA DROUGHT  
RESILIENCE ADOPTION  
AND INNOVATION HUB**



Mallee agricultural decision  
tool for informed adaptation  
practices

# Champion of climate resilience to increase the productivity, profitability and sustainability of the agricultural sector



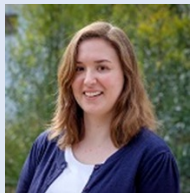
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Professor School of Agriculture, Food and Ecosystem Sciences  
Rural Innovation Research Group, University of Melbourne



**Dr. Robert Faggian**

A/Professor Climate Change Adaptation  
Centre Regional & Rural Future, Deakin University



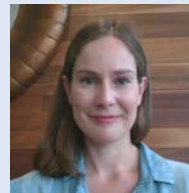
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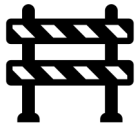
Research Assistant  
Centre Regional & Rural Future, Deakin University

# Project Aims



## **Climate Change**

Develop an understanding of the range and magnitude of challenges faced by farmers in a changing climate



## **Constraints**

Identify any constraints and opportunities to improve adaptation and develop effective adaptation scenarios

## **Decision Support Tool**



This project produced a novel online decision support tool as an output from detailed models that captured insights and information from our research. The online tool serves as a decision-making and knowledge sharing mechanism to support on-farm and regional adaptation into the future.

# Methodology

## Commodities modelled



Almonds



Grapes



Oranges



Mandarins



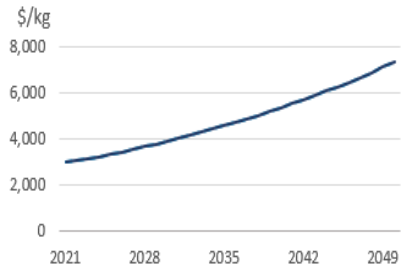


## GRAPES

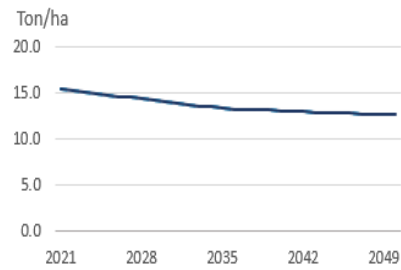
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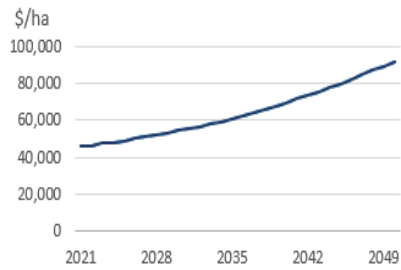
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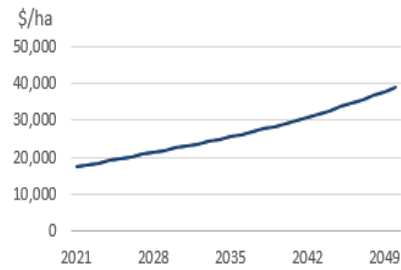
### Yield



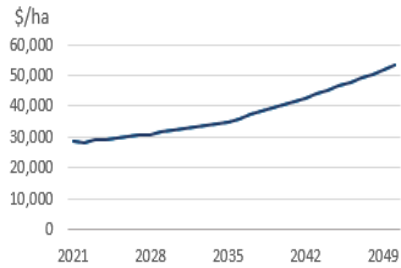
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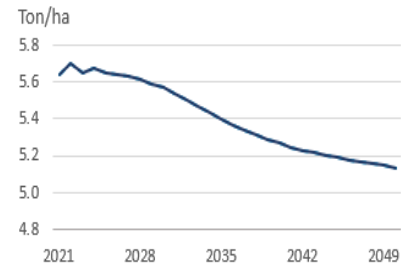
### Costs



### Margin



### Break Even Yield

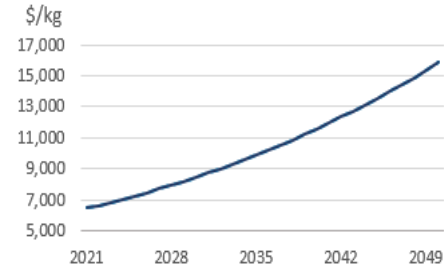


## ALMONDS

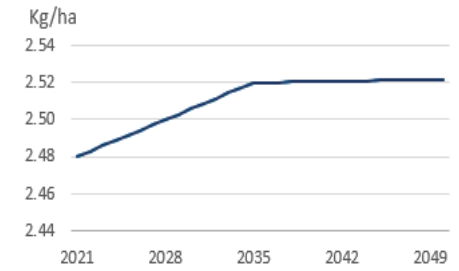
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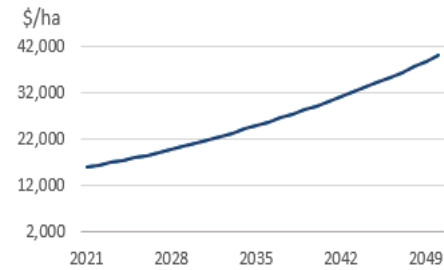
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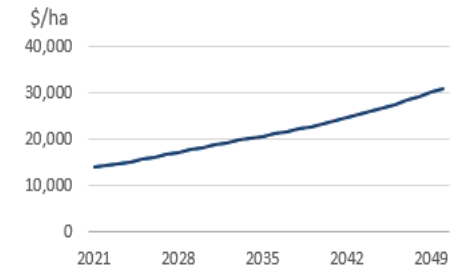
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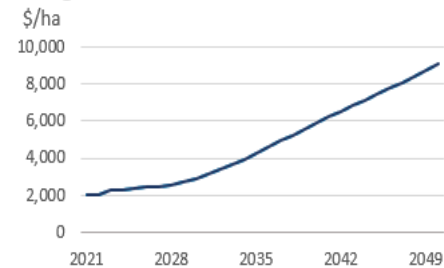
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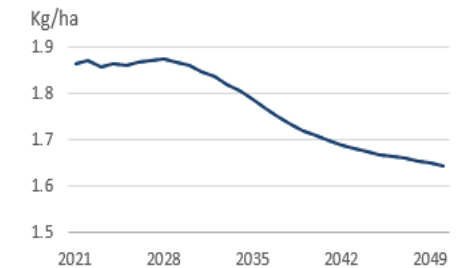
### Costs



### Margin



### Break Even Yield



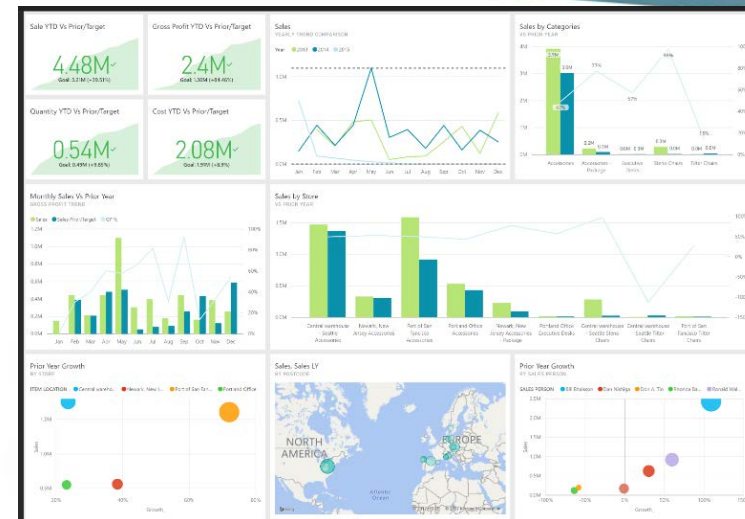
# Future direction

## Decision tool

- Create more variable parameters

## Adaptation options

- Identifying further adaptations implemented by growers
- Developing recommendations about the support needs of growers to adapt





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**Future  
Drought  
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**Food & Fibre  
Gippsland**



**BCG**  
SHARED SOLUTIONS



**Mallee Regional  
Innovation Centre**



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