

Transforming the Australian Vegetable industry

AG Xchange 2025: Impacts on the Ground

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Technologies for next-gen vegetable systems

The need

- 14% sell at a loss, 43% break even
- 2025 Vegetable Industry Sentiment report
 - 60% Australian growers experiencing workforce shortages
 - Up from 46% in 2024
 - 47% signalled investment in innovative ag-tech and mechanisation would be beneficial

Sources:
 Global Coalition of Fresh Produce (2023). Survey into Global Production and Operating costs and prices for fruits and vegetables.
 Producecoalition.net
 AUSVEG (2025). Vegetable Industry Sentiment Report

Vegetable Industry Insights



Gross value of Australian vegetable, potato and onion industry is **\$5.7B**



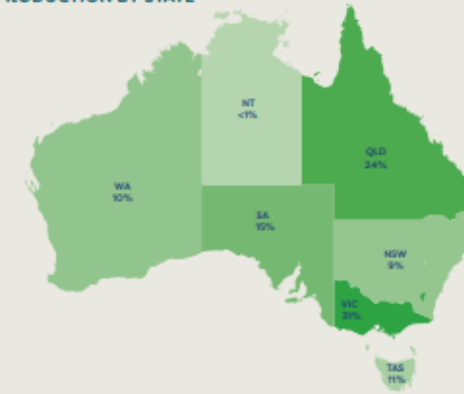
3,600+
vegetable
businesses
in Australia

3.8M
tonnes of fresh
vegetables grown
in Australia

50B
serves of
vegetables



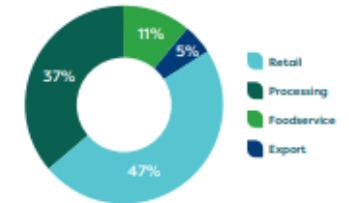
PRODUCTION BY STATE



98%

of fresh vegetables
sold in Australia are
grown in Australia

SUPPLY CHAIN DESTINATION



40% of growers are considering leaving the industry in the next 12 months

62% growers are financially worse off than they were in July 2024

53% of those expect it to worsen by July 2026

60% of vegetable enterprises currently have workforce shortages

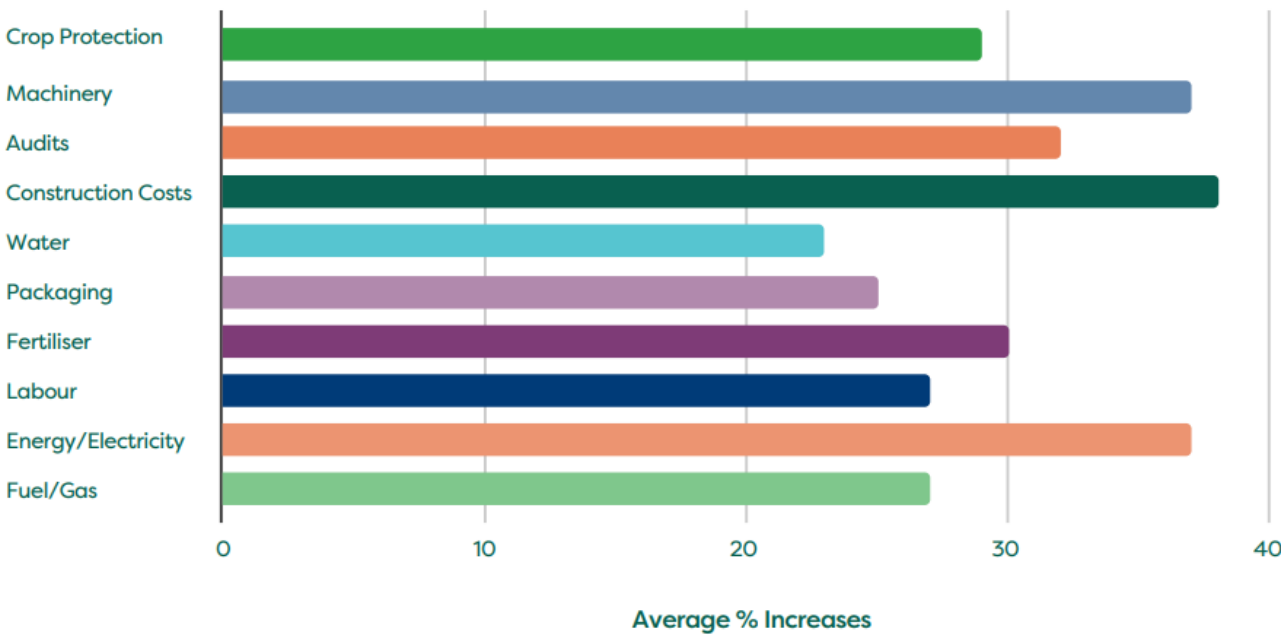
Top 5 reasons for exiting are:

- Lack of operating profit for improvement, expansion and innovation
- Compliance and regulation burden
- **Input cost increases**
- Poor retail pricing
- **Increased labour costs**



The need

INPUT COST INCREASES FY2024-2025



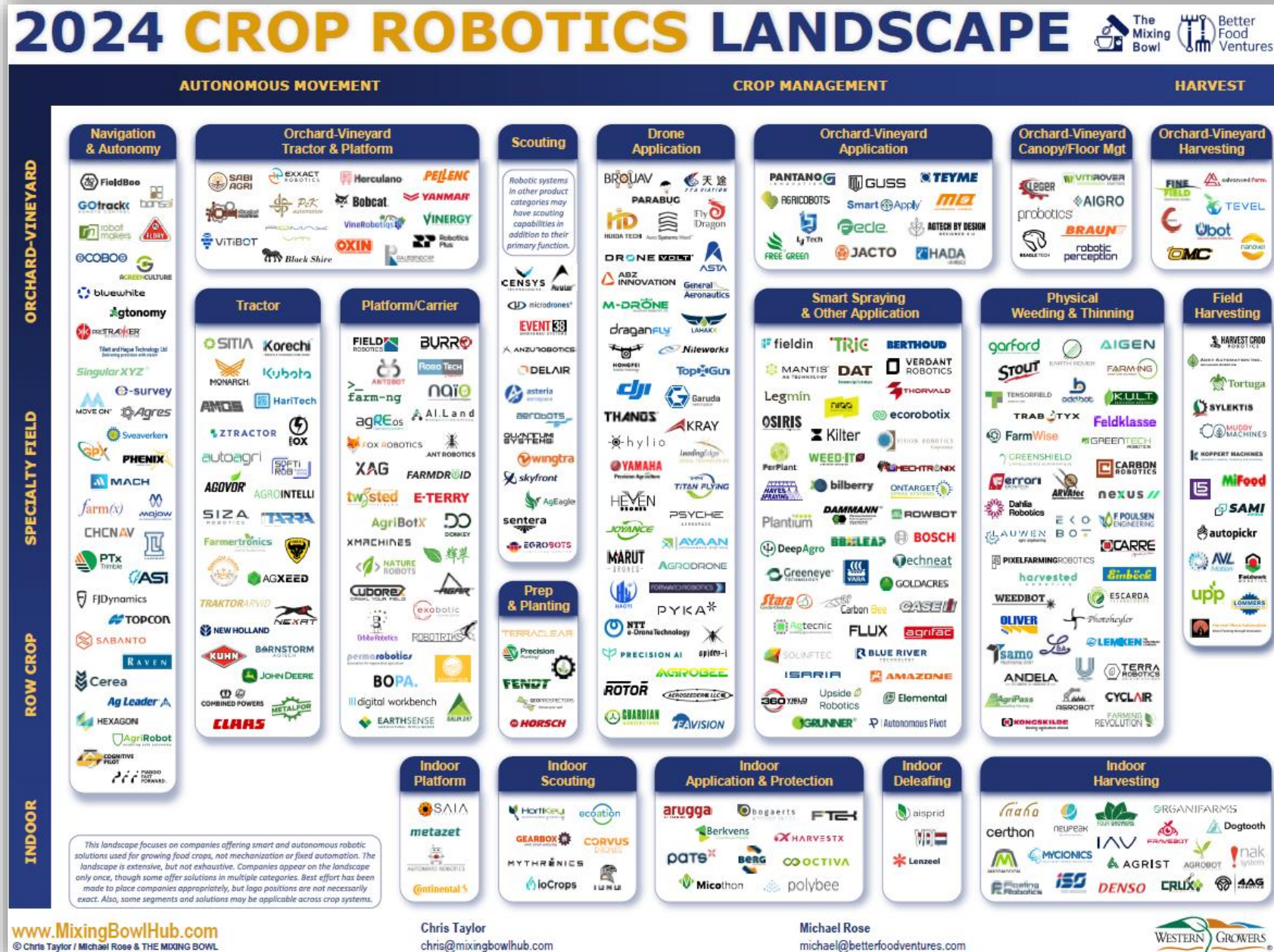
Australia



Sources:
Global Coalition of Fresh Produce (2023). Survey into Global Production and Operating costs and prices for fruits and vegetables. Producecoalition.net
AUSVEG (2025). Vegetable Industry Sentiment Report



Solutions exist



Veg mech and automation

Automation and
mechanisation in
Australia over the
last 2 years



Ecorobotix ARA Smart Sprayer



Ecorobotix ARA Smart Sprayer: 2025 validation trial

	Application 1 chemical applied to 0.05ha at 300L/ha	Application 2 chemical applied to 0.05ha at 300L/ha
Conventional sprayer	12.96L	12.96L
Ecorobotix ARA sprayer	5.65L	3.87L



Two applications of the selective herbicide mix Juggler (active ingredient Methabenzthiazuron) and Loxynil 250 (active ingredient loxynil) on the 11 June 2025 and 20 June 2025.

Ecorobotix ARA Smart Sprayer^{OFFICIAL}



Ecorobotix ARA 2 x selective herbicide applications targeting each weed individually



Ecorobotix ARA sprayer left:
Conventional sprayer right



Conventional sprayer 2 x
selective herbicide applications
broadcast application over crop
and weeds

Ecorobotix ARA Smart Sprayer

Commercial grower: Totril[®] (loxynil)

	Spray volume applied (40ha onions)	Active@2.8L /ha	Totril [®] @\$70.4 per lt
Conventional	400L	142lts	\$10,000
Ecorobotix ARA sprayer	18L	6.4lts	\$450

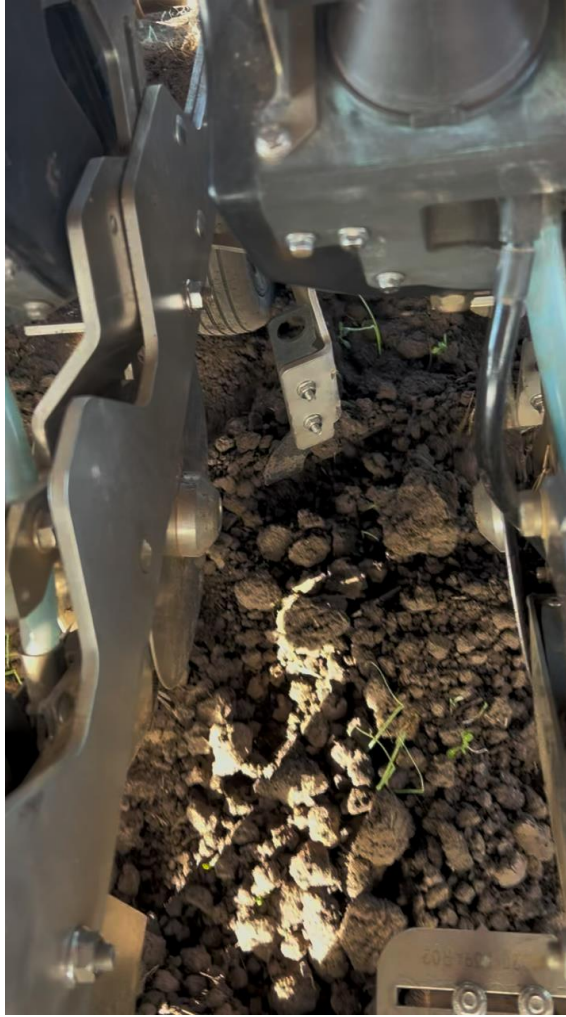


Autonomous weeding and seeding - FarmDroid

- Autonomous seeder and weeder
- Solar powered
- High res (0.1 - 0.2 cm) GPS locates each seed planted
- Mechanically weeds around each seed



Autonomous weeding and seeding - FarmDroid



What's driving the ROI?

Light weight

No fuel

Ability to work long hours

Accuracy = improved germination =
uniformity = efficiency

Farm practice change required though



Robotti - autonomous platform / tool carrier



Automated harvesting



Summary

- Technology is enabling a sustainable future
- Solutions exist
- Tech provides evidence base
- Growers are adopting or ready to adopt
- Grower readiness for field automation?
- Capital is an issue
- Validation important
- ROI emerging



2025 Gatton AgTech showcase



Returning
in 2025

VISY Industry
Impact Award
2024 winner

**Gatton
AgTech Showcase**

15 & 16 October 2025
DPI Gatton Smart Farm

More information
gattonagtechshowcase@cussonsmedia.com.au

Hort Innovation
Frontiers
Queensland
Smart Farms

Hort Innovation
AgriTech
ASSOCIATION

VEGETABLE
FUND

DELIVERING
FOR QUEENSLAND

Queensland
Government

DPI-2562 05/25

Official
opening

**Protected
Cropping Centre for
Mild Winter Climates**

15 & 16 October 2025
as part of the Gatton AgTech Showcase

More information
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