Research and Innovation at Agriculture Victoria

- 1. Overview of Victorian Agriculture
- 2. Agriculture Victoria Research
- 3. Agtech Regional Innovation Network
- 4. SmartFarms
- 5. AgriBio Centre for AgriBioscience

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AGRICULTURE VICTORIA



Section 1: Overview - Agriculture in Victoria



Agriculture in Victoria is an economic driver for regional economies and part of the social structure of rural communities.

It manages just over half the land in the state, is the major water user and a contributor to climate change, as well being part of the solution.

\$17.5 billion Gross in 20

Gross value of agriculture production

in 2020-21 (latest data)

67,100 jobs

In agricultural production

21,700 farms

Commercial agricultural businesses

11.3 M ha

Farmers manage half of Victorian

land (51 per cent)

27 per cent

Of total national food and fibre exports

Snapshot of agriculture in Victoria



Victoria is Australia's second largest agricultural producer

Major industries by gross value (2020-21)

- Horticulture (\$3.94bn)
- Grains (\$3.55bn)
- Dairy (\$2.86bn)
- Sheep (\$2.62bn)
- Beef (\$2.58bn)





businesses is thus not recommended.



Exports value



\$14B Total food and fibre exports in 2020-21

Victoria is Australia's largest food and fibre exporting state - accounted for 27% of total exports from just 3% of Australia's arable land mass

47% Of all Victorian goods exports accounted for by food and fibre exports

Victoria's top 5 valuable food exports





\$2.56B







Horticulture \$1.36B

Top 5 most valuable export markets

China

\$3.34B

\$3.69B \$1.13B

\$2.06B \$1.41B

Indonesia Others

\$1.11B \$0.84B \$0.62B \$6.61B * Some data still being updated to 2020-21



Farmland



Victoria's land area used for agricultural production in 2019-20

Estimated area of Victoria's

agricultural businesses

agricultural land

Of the total

Cropping 42% 42%

Grazing

52%

Other



Employment

50% Estimated area of Victoriand Indianass managed by



People employed in agriculture production (year to November 2021)



Jobs in food and beverage manufacturing production (year to November 2021)

Employment by agricultural industry

16,400

Horticulture 15,700

Sheep 11,300

ð Grains

Dairy 7.500 6,300

78% Share of Agriculture, Forestry and Fishing jobs in regional Victoria



How much was produced in 2019-20?

Victoria's arain production

8.4 million tonnes Victoria's beef and veal production 21% of Australia's production

495,000 tonnes



#1 sheep meat

46% of national

producer in

production

315,000

tonnes

Australia

#1 dairying state - produced two-thirds of Australia's milk

5.6B litres of milk Victoria's horticultural production

1.4 million tonnes





\$9.3B Agriculture's contribution to Victoria's economy in 2020-21

\$8.3B Food and beverage processing contribution to Victoria's economy in 2020-21

Agriculture's share of Victoria's gross state product (GSP)





Victoria has a moderate yet diverse climate ideal for many different agricultural sectors.

The state records Australia's second highest average annual rainfall, has diverse soil types and quality pastures for livestock.

Victoria's compact size provides access to export and domestic markets, including food manufacturing.

- Grains production is concentrated in Victoria's north west.
- There are three dairy production regions, pasture based in the south and irrigation based in the north.
- Horticulture is concentrated around Melbourne, along the Murray River, and in other areas with access to irrigation.
- Beef and sheep production are more distributed across the state.

The 2016 VLUIS data used in this map is currently being updated and will be available later this year.

Agriculture and Other Land Use Land use Food processing jobs 50 - 199 Cropping 200 - 999 Dairy Private forestry 1,000 - 2,000 Grazing sheep & beef 34,000 Horticulture Other livestock Land use: Victorian Land Use Information System 2016; Employment: ABS Census 2016. Analysis by Agriculture Victoria Research and Socio-Economic Policy, Agriculture Victoria; Contact: peter.parbery@agriculture.vic.gov.au WIMMERA LODDON CAMPASPE UTHERN MALLEE OVENS MURRAY GOULBURN CENTRAL HIGHLANDS MELBOURNE GIPPSLAND . **GREAT SOUTH COAST** BARWON AGRICULTURE VICTORIA Data is less accurate at high resolution. It is the user's responsibility to check the accuracy, currency and relevance of the data.



Victoria is Australia's leading food exporter

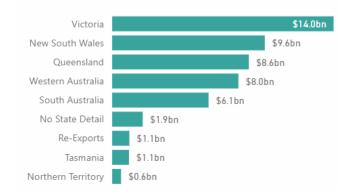
In 2020-21 Victoria was Australia's largest food and fibre exporting state with 27 per cent of total exports.

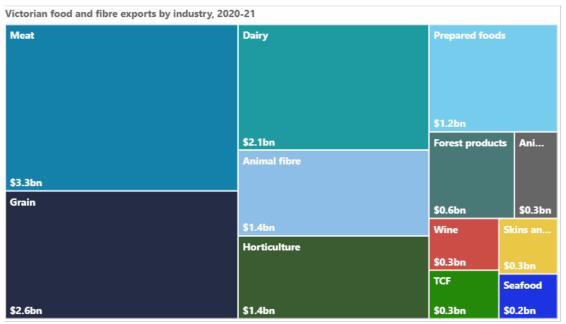
- This was a small decline in exports, driven principally by reduced meat exports.
- This reflected COVID-related labour shortages in meat processing, and strong domestic demand from farmers restocking in response to good seasonal conditions following years of drought.



In 2020-21, Victoria was Australia's largest food and fibre exporting state - accounting for 27% of total exports

Country	Value (\$) ▼
China	\$3,693,208,835
United States	\$1,129,120,529
Japan	\$1,107,027,791
New Zealand	\$836,802,372
Indonesia	\$617,155,002





Section 2: Agriculture Victoria Research



Agriculture Victoria works to grow and protect profitable, sustainable farms in thriving regional and rural communities across Victoria.

Agriculture Victoria Research's research and innovation priorities are to:

Agriculture Strategy

Deliver outcomes that work to recover, grow, modernise, protect and promote Victorian agriculture industries through the Victorian Government Agriculture Strategy: Strong, Innovative, Sustainable.

Industry

Work with industry to co-design, co-invest and co-deliver research and innovation under the National Primary Industries Research, Development and Extension Framework.

Climate change

Support Victorian agriculture to respond to climate change.

Smarter farms

Deliver smarter farms through science, innovation and digital agriculture.

Biosecurity and animal welfare

Strengthen biosecurity and animal welfare to protect food and jobs.

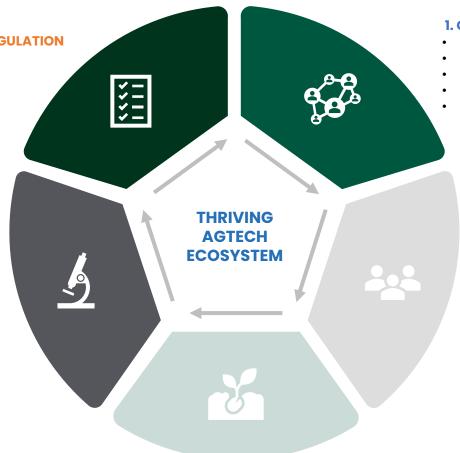
Section 3: Agtech Regional Innovation Network

5. OPTIMISING POLICY AND REGULATION

- Regulatory review project
- Data Roadmap
- Agriculture data exchange
- National advocacy on key issues

4. COMMERCIALISATION PATHWAYS

- Support for AgTech research commercialisation
- Support AgVic entrepreneurial/ commercialisation skills development



1. CONNECT AND GROW THE ECOSYSTEM

- Map ecosystem, barriers, gaps and existing support
- Broker relationships
- Case management of pre accelerator participants
- Targeted engagement plans
- Industry snapshots/ Intelligence briefings

2. ACTIVATING INNOVATION

- Broker trialling and testing of AgTech solutions
- Sign-posting to advice, support and funding opportunities across Vic Government
- Support industry events that promote innovation

3. SUPPORTING STARTUPS & ESTABLISHED BUSINESSES

- Funding for tailored services and support including capability development
- Funding for larger, transformational innovation to de-risk and fast-track
- Funding for pre-accelerator programs

Section 4: SmartFarms



Partnership

with industry, agribusiness, the education sector and regional communities

Gateways

to research, innovation and technology, and skills development for Victoria's major agriculture industries

Regional benefits

attracting agtech businesses and the world's best science across Victoria's agricultural regions

Connected

to each other and the leading-edge big data and systems biology capabilities at AgriBio



Science innovation clusters Innovation precincts with 'hub and spoke' model and 'SmartFarms'

Ellinbank SmartFarm

Dairy research

Tatura SmartFarm

 Perennial horticulture research focused on pears, apples and stone fruits

Hamilton SmartFarm

Grains, dairy and pasture research

Horsham SmartFarm

• Grains research, including grains for alternative proteins

Mildura SmartFarm

Perennial horticulture research focused on temperate nuts

AgriBio - Centre for AgriBioscience

- Plant, animal, and microbial systems biology (from genome to phenome)
- Plant and animal biosecurity diagnostics
- Research commercialisation
- Medicinal agriculture
- Joint venture with La Trobe University



Section 5: AgriBio – Centre for AgriBioscience



Joint facility

of Victorian Government and La Trobe University

An investment of \$288 million

Joint venture

with 300 staff from Agriculture Victoria and 100 staff from La Trobe University

With over 80+ PhD students

Collaboration

designed for collaboration