



LA TROBE
UNIVERSITY

LEADING THE WAY IN AGRIBIOSCIENCE AND SUSTAINABLE FOOD SOLUTIONS

Meeting the **agricultural production** needs of **Victoria** and the **world**

La Trobe University is a leader in pre-farm gate research, agricultural production research and sustainable food solutions. We work with industry to find efficiencies across the production process, and to test and commercialise innovative technology and products.

At La Trobe our research is focused on developing sustainable and innovative solutions to support local and national agricultural production in a resource limited world. Victoria accounts for 25 per cent of Australian food and fibre exports with the State's total food and fibre exports valued at more than \$12.8 billion* per annum.

Our goal at La Trobe is to maintain and increase the quantity and quality of agricultural production to:

- Help meet increasing demand for high quality sustainable food
- Provide better quality products for improved nutritional health
- Help achieve premium prices for primary producers to meet increasing demands for high quality, sustainable food

We are at the forefront of science aimed at increasing quality in food production and have combined our resources, expertise and skills with government bodies, industry groups, commercial operations and other universities nationally and internationally to develop sustainable solutions to maintain and increase agriculture production.

Our scientists undertake multi-disciplinary research addressing global challenges in:

- Food production and security
- Water scarcity and drought
- Land degradation and desertification
- Climate change and variability
- Irretrievable loss of biodiversity
- Stressed and dysfunctional ecosystems
- Waste, agricultural and food supply chain losses
- Sustainable agriculture
- Medicinal agriculture

* Agriculture Victoria 2016-2017



GOLDEN SOILS

IMPROVING UNDERPERFORMING SOILS THAT COST AUSTRALIAN FARMERS BILLIONS OF DOLLARS A YEAR IN LOST PRODUCTIVITY



FIT FOR PURPOSE SEEDS

PRODUCING SEEDS THAT ARE FIT FOR PURPOSE FOR HEALTH, FOOD AND MANUFACTURING



QUALITY DIETARY FIBRE

FINDING THE BEST QUALITY AND FUNCTIONALITY ASPECTS OF FIBRE TO REDUCE THE RELIANCE ON PROCESSED FOOD



At the cutting edge of AgriBioscience and Food and Fibre research

Our leading scientists are working to improve soil performance, develop high value, high quality crops, and produce seeds that deliver higher yields and are fit for purpose. This work takes place across a number of world class research and development facilities at La Trobe including the **Centre for AgriBioscience (AgriBio)**, a joint venture with the Victorian Government, the La Trobe Institute of Molecular Science (LIMS), La Trobe's various platforms technologies and our network of regional campuses across Victoria.

Centre for AgriBioscience (AgriBio)

The Centre for AgriBioscience (AgriBio) brings together over 400 scientists, researchers and staff from university, government and biotech companies in a purpose built central location to foster cross-disciplinary collaboration. AgriBio accommodates a broad range of research areas with the common aim of delivering sustainable agriculture and food security solutions and addressing the increasing demands on food from a growing world population.

AgriBio provides the foundation for the development of a State based agriculture biotechnology hub within La Trobe's Research and Innovation Precinct that allows for unique research collaboration opportunities and provides a central location for companies to access world-class research and state-of-the-art facilities.

The La Trobe Institute for Agriculture and Food (LIAF)

Having established the capability at AgriBio, we are now developing additional capacity by investing \$25M in a new state-of-the-art research and education training institute, **The La Trobe Institute for Agriculture and Food (LIAF)**.

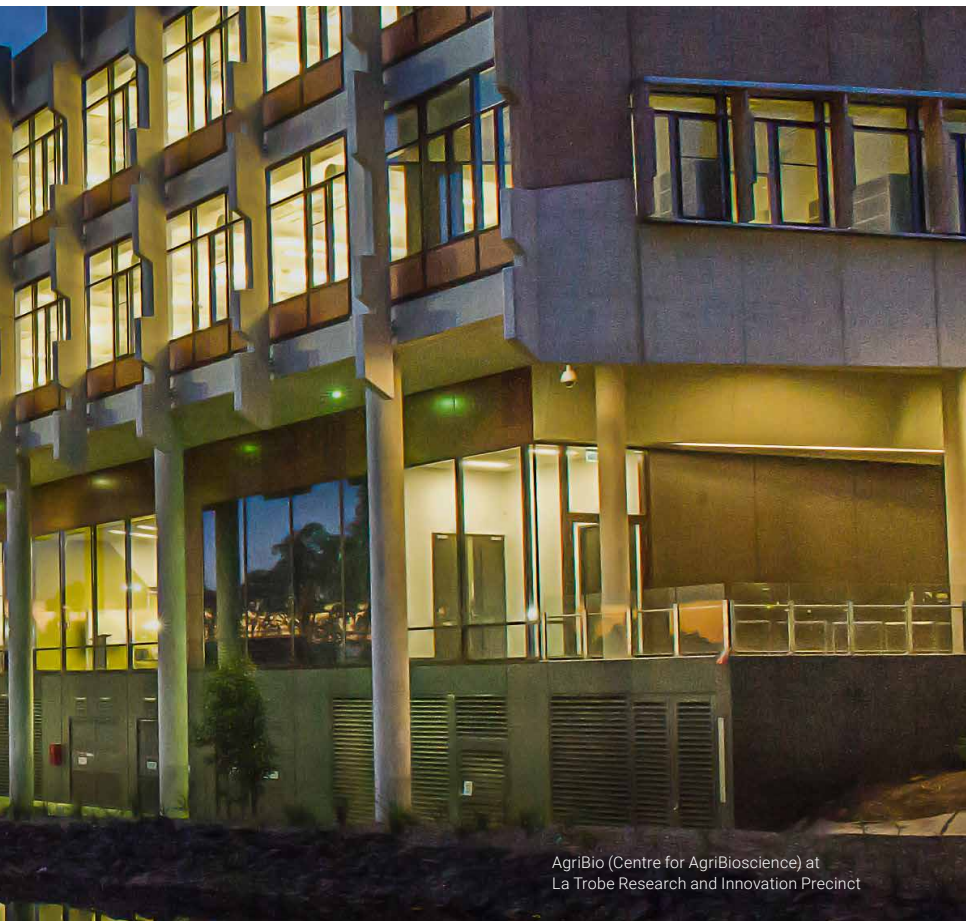
Located within La Trobe University's 48-hectare Research and Innovation Precinct, LIAF will collaborate with partners to drive innovation, optimise the agricultural production and nutritional quality of food and inform future directions for the sector. The Institute will find solutions that enable sustainable agriculture that provides food of the quality and quantity to meet global food challenges in coming decades.



Award-winning Agrifood researchers

La Trobe University agricultural scientist Dr James Hunt won the 2017 ICM Agrifood Award in recognition of his significant contribution to the Australian agriculture sector.

Dr Hunt's research focuses on crop agronomy, physiology and efficient water use in dry-land crop and mixed farming systems. He is currently developing innovative farming practices in the wheat industry – one of Australia's most important commodities – in response to the detrimental effects of climate change.



AgriBio (Centre for AgriBioscience) at La Trobe Research and Innovation Precinct

Nutrition and food sciences

La Trobe works across the nutrition and food sciences fields, with support from industry and other research organisations. Our work finds solutions that better understand the properties of functional food and establishes its role in the maintenance of health and well-being, and the primary and secondary prevention of chronic disease.

We have established long-standing research links with health services and medical schools and undertake clinical intervention trials in cardiovascular health, endocrinology, gastrointestinal health, depression and malnutrition.

We also produce leading work in Mediterranean diet interventions and gut health and we are undertaking dietary interventions in Coeliac Disease and Irritable Bowel Syndrome.

Australia's first Research Hub for Medicinal Agriculture

Australia's first Research Hub for Medicinal Agriculture will be based at our Bundoora Campus. The \$27M+ initiative, supported by the Commonwealth Government and industry, recognises La Trobe University as a national leader in the emerging field of medicinal agriculture, and will combine extensive research and industry expertise to create new jobs and drive better health outcomes.

The ARC Industrial Transformational Research Hub will position Australia as a world leader, and aligns with Victoria's strong focus on the emerging medicinal agriculture market.

The Hub includes agricultural and biomedical researchers along with existing and new industry partners including Cann Group Limited and TPI Enterprises. Research partners include Olivia Newton John Cancer Research Institute (ONJCRI) and the University of Melbourne.

The add-on value of the Hub is estimated at an additional \$1-2B per annum in industry value.

Food safety and supply chain

An effective food and supply chain is critical for delivering goods to consumers quickly and efficiently. La Trobe's researchers have developed new ways to improve efficiency and reduce supply chain costs using a smart asset tag system. The innovation utilises radio frequency identification technology to track perishable consumer goods in transit and provides real-time information about a product's conditions from paddock to plate.



Industry focused

Agriculture and Food is an industry sector focus of our Research and Innovation Precinct particularly around our capabilities with plants (genomics and crop design) and soil (remediation and precision agriculture).

Cann Group, a leading developer and supplier of medicinal cannabis in Australia, is enhancing its research and development operations at La Trobe. The expansion of Cann Group's corporate headquarters and operations will enable greater research collaboration with La Trobe and strengthen capabilities in plant genetics, breeding, cultivation, extraction and analysis, while also building a pipeline for clinical trials. The expansion means more opportunities to create new industries and high-tech jobs in Melbourne's north as well as support student engagement with industry.

Partners in AgriBioscience include...

- The Department of Economic Development, Jobs, Transport and Resources (DEDJTR)
- Australian Research Council
- Department of Agriculture and Water Resources
- Geoffrey Gardiner Dairy Foundation Limited
- Grains Research and Development Corporation
- Australian Grape and Wine Authority
- Meat and Livestock Australia

Disclaimer: Every effort has been made to ensure the information contained in this publication is accurate and current at the date of printing. For the most up-to-date information, please refer to the La Trobe University website. Published by La Trobe University, December 2018. La Trobe University is a registered provider under the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS). CRICOS Provider 00115M.

Contact Us

If you would like to know more about our AgriBioscience and Food and Fibre plans or are interested in talking to us about how you can become involved, please reach out to us at.

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