

## Foreword



Changing and enriching lives

## A notable example of reducing poverty and inequality

The Targeted Poverty Alleviation (TPA) program in China is widely regarded for its influence in eliminating the extreme poverty of 70 million rural inhabitants. However, little is known about the extent to which the TPA program narrows the income gap between urban and rural households.



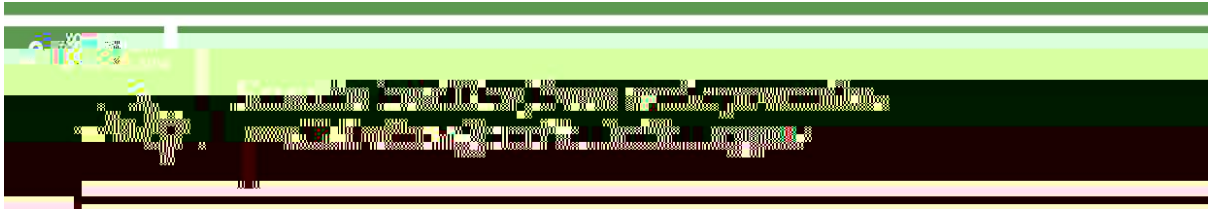
## Providing sustainable, healthy food and free water options on campus

Lincoln University is committed to providing sustainable, healthy food options for all students and staff on campus. This includes gluten-free, vegetarian and vegan alternatives. Free access to water is also provided for all students, staff and visitors on campus through drinking water taps as well as filtered hot and cold water in kitchen facilities. Lincoln's on-site cafes are open to students, staff and the public, and there is also a student dining hall, with a catering service available for events. All campus cafes and dining facilities are certified palm oil-free and use free-range eggs, herbs grown on campus by the catering department, and campus-made yoghurt to avoid plastic packaging and offer affordable meals for students. Meals in the student dining hall are provided to residents as part of the

living on campus can buy discounted meal tickets for buffet- catering team meet with student residents at the start of each term to identify dietary requirements and cater for many different requirements including gluten-free, vegan, dairy-free and halal. Vegetarian options are included for all meals.

## Research focused on food sustainability

Food Transitions 2050 is a strategic partnership initiative between five research organisations located in the Canterbury region: AgResearch, Manaaki Whenua - Landcare Research, Plant & Food Research, Lincoln University and the University of Canterbury. At



-tech health and fitness testing for students, staff and the community

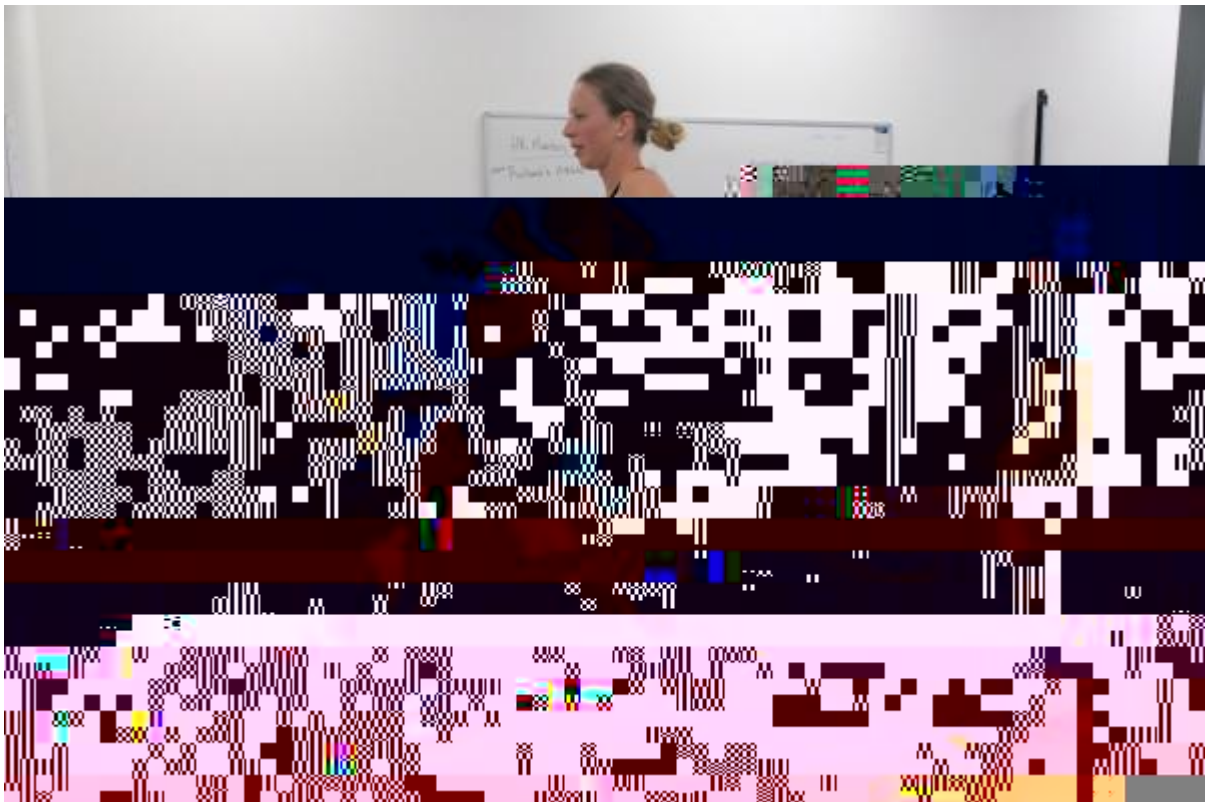
-tech health and fitness testing for students, staff, and the community, including body weight composition, cardiovascular indicators, lipid profiling, lactate and maximal oxygen consumption testing and metabolic energy consumption.

Key Living Lab projects include:

A study in collaboration with the University of New South Wales to test a simple, non-invasive way to uncover chronic kidney disease progression through using a simple exercise test with non-invasive measures (e.g. pulse wave velocity and heart rate) rather than invasive medical procedures to test kidney health

Research with the Lincoln University Future Productive Landscapes Centre of Excellence. Head of the Centre, Professor Pablo Gregorini, believes that animal products reflect the history of our landscape, foodscapes and agricultural systems manifested through soil and plant chemistry, and thereby our health and that of the planet

A collaboration between Lincoln University and the University of Waikato to study the effect of green seaweed supplements on health. The green seaweed used was *Ulva sp. B*, which is rich in potassium, calcium, iron, zinc, phosphorus, sodium, magnesium and vitamins B, C, E, D and K. The research looks into whether the New Zealand seaweed supplements can improve health naturally.













Institution (IFPRI), the University of Dhaka, the Australian National University and Green Ink organised a dissemination workshop of the study in May, Lincoln University Associate Professor of Global Value Chains and Trade, Nazmun Rata, said there was a need for strong reintegration policies for returnee





## Christchurch Shallow Groundwater Quality Survey dataset

In 2022, Lincoln University researchers published a Christchurch shallow groundwater quality survey dataset. This dataset is useful as a point of comparison for future shallow groundwater surveys in Christchurch, New Zealand, for example, to investigate changes in groundwater salinity and level due to sea-level rise, increased seawater intrusion or pollution events. It could also be used by asset managers to monitor potentially vulnerable infrastructure and by civil engineers to determine the best materials to use.

## Precision weeding in vineyards could save thousands of litres of water

A new project investigating precision weeding in vineyards could potentially prevent thousands of litres of herbicide use



## Sustainable energy on campus

Lincoln is also the only New Zealand university to boast commercial-





## A global business with a history of employing Lincoln graduates

has been strengthened following the launch of a revised and expanded internship programme for Lincoln

Supply Chain Management is viewed as a highly desirable and relatively unique programme in New Zealand as it focuses on relevant industry contexts and mixed delivery of learning, effectively producing work-ready graduates.

## Providing opportunities for leaders to grow

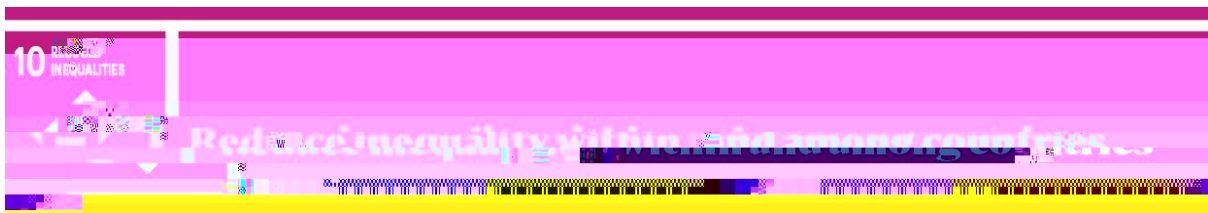
The inaugural Lincoln University Leadership Development Programme was launched in 2022. The programme was specifically designed for the University, providing managers with the opportunity to further develop and hone their leadership capabilities and skills. Importantly, it ensured a shared understanding and consistency of core leadership requirements across the University. A total of eight workshops, two workshops per staff member, were attended by 58 staff members in managerial and leadership roles.

## A focus on building core capabilities and critical skills

The 2022 Staff Learning and Development programme comprises a range of courses building core







## Achieving parity of participation and achievement for all students

Enhancing the university experience for students is pivotal for their development and success, enabling them to thrive and grow their potential while preparing them for future career success and impact in the land-based sector. The Manaaki Tauria programme embodies its

Manaaki Tauria combines a values-led approach with strategic and systematic processes. Within an educational space, it becomes a continual process that guides and supports every student on their path to success. Embedded in the

Aoraki Lincoln University. A key element of Whanake Ake is the ability to embed and deliver Maturaka M



## Providing a bicultural experience for staff, students and stakeholders.

A Lincoln Future Leader Scholar has left a meaningful legacy through her project, "*Enhancing Cultural and Te Tiriti Competency within the 2022 Future Leader Cohort*". Alice work involved assessing and developing her fellow scholars' cultural competency, their knowledge of the Treaty of Waitangi and its relevance, their understanding of the significance of engaging and working alongside their future work. The project fed into a wider review of the Future Leader programme to ensure graduates would be able to lead in a bicultural environment,





## Innovative new solutions for contested peri-urban landscapes

The University hosted a group of mayors and local authority senior executives from around the Canterbury region for a workshop entitled The Peri-Urban Conundrum – farming in a contested landscape. The collaboration between the Canterbury Mayoral Forum and

committed to researching, teaching and showcasing practices and approaches that will advance a more productive and sustainable future for Aotearoa New Zealand.

### Tackling environmental issues head-on

Lincoln alumnus Tsewang Nuru Sherpa is using local solutions to take on the big issues and protect the environment in his home country of Nepal. The Master of Applied Science in Environmental Management graduate, who came to Lincoln on a Mingma Norbu Sherpa Memorial Scholarship, was featured in an article entitled *From Everest to Aotearoa*

## Developing and demonstrating world-best agricultural practices

Lincoln University farms are crucial to its practical scientific research and engagement with the agricultural sector. The farms develop and demonstrate world

Contributing to a larger movement towards ethical and sustainable practices



## Educating on how low-flammability species reduce the risk of fires

Climate change is increasing the risk and intensity of fire worldwide. In 2022, Lincoln University teamed up with Fire and Emergency New Zealand to produce a public education campaign on how planting low-flammability species could help rural and urban landowners reduce the risk of fire on their properties. Lincoln University alumnus (and All Black) Samuel Whitelock (BSc Plant Science) returned to campus to film a series of videos with Associate Professor Tim Curran. The Lincoln University research team uses a specialised plant barbeque to assess the flammability of common plants. Their dataset is the largest and most reliable globally. The public education campaign includes a video of the plant barbeque in action, landscaping and gardening tips to reduce the impact of wildfire around homes, and a catalogue of low-flammability New Zealand plants.

## LU expert appointed to Canterbury Climate Change Action Committee.

In March 2022, Professor Anita Wreford was appointed to the Change Action Committee. The committee was established in April 2021 to provide effective and transparent leadership on climate change and ensure a climate-resilient future for the Canterbury ointment as one of two independent experts will help the regional government improve its decision-

## wellbeing

Since its foundation by Cabinet in 1962, the Agribusiness and Economics Research Unit (AERU) at Lincoln University has performed world-class research addressing significant issues affecting New Zealand. AERU together with Westpac NZ released research that finds agile farm management will be critical in reducing emissions and adapting to climate change. It was produced as part of a wider body of work undertaken by Lincoln University for Westpac NZ looking at the impact of climate change on agriculture in New Zealand.

The Westpac NZ Agribusiness Climate Change Report assesses the risks and opportunities

It was designed to provide impartial information to farmers about the way climate change may affect their location and type of production, and how they can respond. The report finds there is already a range of ex 841.92 10.000008871 0 595.32 841Qq0.000008871 0 595.32 841.92 reW\*nBT/F1 9.96 Tf1 0 0 1 72.024 593.83 T

## Largest-ever pastoral farming study on regenerative farming practices

-ever pastoral farming study on regenerative farming practices. The new Whenua Haumanu programme, of which Lincoln University is a research partner together with AgResearch, Dairy Trust Taranaki with Massey University as the



## Study on sea ice and climate change

How much sea ice is there, how much does it drive climate change, how much is it affected by climate change, and what does that mean for the future of our planet? The answers to these questions should become clearer as a result of a \$929,000 Marsden Fund award to devise new ways of measuring sea ice. Antarctic sea ice acts as a giant solar reflector covering up to 90% of the Southern Ocean. But

have been able to measure only the area of sea ice, but not its thickness. Lincoln Agritech researcher Dr Adrian Tan is part of the team, led by Assoc Prof Wolfgang Rack of the Uole4e(ure)-12( mi9 Tm0 g0 G4841.92 reW

## Biosecurity for the seaweed industry

Lincoln University Provost, Professor Chad Hewitt, is part of an international team working for improved seaweed biosecurity management, an industry that accounts for over 50% of global marine and coastal aquaculture production by volume. The rapid expansion and globalization of the seaweed production industry, combined with rising seawater temperatures and coastal eutrophication, has led to an increase in infectious diseases and pest outbreaks.

The primary international mechanisms for controlling exotic diseases associated with trade in aquaculture organisms and products (e.g., the Aquatic Code of the World Organisation for Animal Health (WOAH)) do not include seaweed and aquatic plants. Having tested biosecurity measures in Malaysia, the team is adapting the UN Progressive Management Pathway for improving Aquaculture Biosecurity (PMP/AB) to the seaweed sector. Given the limited wealth of many small-scale seaweed farmers, the development and implementation of the PMP/AB-Seaweed must be supported by government-led initiatives and new business models.

## Managing marine ecosystem health

Lincoln University is part of a nationwide project on ecosystem-based management of New Zealand marine resources.

and communities to navigate the legislative, policy and practice constraints surrounding marine ecosystem-based management (EBM) and any changes required to enable it.





## Enabling volunteers to play a more pronounced role in disaster response

An article published by Department of Environmental Management researchers examined ten years of disaster response by the Student Volunteer Army, a student-led volunteer group.



## Honouring contributions to economic and social development in the Gansu Province.

Lincoln University Professor Jon Hickford became the first New Zealander to be recognised with the prestigious Dunhuang Award from the People's Republic of China. The award, similar to a New Zealand Order of Merit (ONZM) but in recognition of international service, honours foreign experts who have made great contributions to economic and social development in the Gansu Province.

Gansu has been a sister city of Christchurch since 1984 and its connections began with Cantabrian, Rewi Alley, whose support of government-sponsored flood and famine work in China led to him receiving honorary Chinese citizenship in 1982.

Sharing a common vision to contribute to sustainable and global development





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