

PALMYTM PROUD

food
innovation



THE FLAVOUR FRONTIER

Paddock to prototype

Palmerston North might surprise you – beyond the farms and flat whites, this city's leading the way in food innovation.

Whether you're in the city for a long lunch, a science symposium, or simply passing through, you're standing in the epicentre of something extraordinary.

Palmerston North is on a bold journey – to become the Food Innovation Capital of New Zealand. And it's not just talk! It's home to ideas that are reshaping what we eat, how we grow it and how it reaches your plate.

Sitting in the heart of the Manawatū, Palmy's always been a place where good ideas grow alongside good food.

This region feeds the country and the country's thinking. Home to Te Kunenga ki Pūrehuroa Massey University, the city leads the charge in agricultural and food science. Add in global players such as Fonterra's Global Research & Development Centre, the Riddet Institute, AgResearch, and NZ Plant & Food Research, and you've got a who's who of food innovation.

Need proof?

A growing number of food entrepreneurs have turned early ideas into market-ready products using Massey's FoodPilot, a one-of-a-kind facility helping to bring new food concepts to life.

Food is a big deal here, however it's not just in size, but in smarts. With 3000 plus food scientists and researchers, Palmerston North has more PhDs per capita than any other Kiwi city. But this isn't innovation locked away in labs. It's visible in your lunchbox, your local café and on the supermarket shelf. It's happening in real-time. From sustainable production and future foods to cutting-edge packaging and nutrition, Palmerston North is designing how we'll eat in the decades to come.

Palmy is also the logistics linchpin of the country – ideal for testing, tasting, scaling and sending the future of food across New Zealand and beyond.

Whether you're a curious traveller, a foodie with a science streak, or simply hungry for something new, Palmy serves up innovation on a plate.



Faith, family + food tech



In the heart of New Zealand's leading food innovation hub, Te Kunenga ki Pūrehuroa Massey University's Bachelor of Food Technology with Honours programme is shaping the next generation of industry leaders. Among its most inspiring graduates is Pelenitina (Tina) Vao.

A mother of six, Tina left her home in Tonga in 2019 to pursue a better future for her family.

After 15 years away from formal education, she began with a Certificate in Science and Technology before earning a scholarship to study Food Technology at Massey's Manawatū campus.

"It was one of the hardest decisions I've ever made," Tina says. "But I carried with me a dream of building a better life for my children."

Her journey was anything but easy. The challenges of full-time study, language barriers and being separated from her family during COVID-19 tested her resolve.

When her children were finally able to join her in 2021, everything changed.

"Having them by my side gave me strength," she says.

But in 2023, Tina faced devastating personal loss. Her youngest son, Lata, passed away at age 10. Just weeks later, her mother also passed. Grieving and overwhelmed, Tina stepped away from her studies, but not for long.

Now a proud graduate, Tina has completed one of the most unique and sought-after degrees in Australasia – Massey's Bachelor of Food Technology with Honours.

Putting down global roots

Nestled among the lush green fields of some of New Zealand's finest agricultural land, Palmy has long been a food innovation hub. Today, the city is taking that proud legacy to new heights, forming international partnerships to drive advancements in food science and agritech, both locally and around the world.

Despite its modest size, Palmy punches well above its weight when it comes to brainpower. With the highest PhD rate per capita in New Zealand and the greatest concentration of scientists in Australasia.

A standout example is the recent signing of a Memorandum of Understanding to collaborate with our sister city Kunshan, one of China's powerhouses of agritech and food innovation.

The agreement supports joint efforts to collaborate in research on agricultural technology, food safety, and sustainability.

It also aims to bring world-class products and technologies to the market in New Zealand.

In Europe, Palmerston North is strengthening ties with Nancy, France, a vibrant centre of food technology innovation. Nancy's FoodTech network connects more than 40 organisations across the food chain, from farm to fork. The city's collaborative ecosystem is supported by the University of Lorraine, regional incubators and industry partners.

The worldwide connections don't stop there. Palmerston North City Council frequently welcomes delegations of ambassadors and international dignitaries, guiding them on tours of the city to highlight our world-class research and development capabilities. The city is also currently involved in networking discussions with other cities, such as Campinas in Brazil, Wageningen in the Netherlands amongst others.

KINDA AMAZING

It was a recipe for success when a freshly graduated Massey University food technologist and a vegan ice cream maker with entrepreneurial goals had a chance meeting at a 54-hour business start-up competition in 2020.

The result is EatKinda, a world-first product – ice cream made from cauliflower. Developed in Palmerston North, it is becoming a sell-out success story around New Zealand and gaining a viral social media following.

Knowing there was growing consumer demand for plant-based foods and identifying how they could use cosmetically imperfect cauliflower for their ice cream, Mrinali Kumar (Milli) and Jenni Matheson were motivated to produce an inclusive food product and save tonnes of crops from going to landfills.

Milli's food technology expertise complemented Jenni's cauliflower-based vegan ice cream concept. Through their love of food, they formed a power duo with a robust business plan and a desire to provide new food options for people. A shared vision is the crucial ingredient to their success. "Because we are so aligned in our vision, we help each other keep moving forward," Milli says.

Accessing funding and investors was critical to the success of their brand. Participating in start-up and business support programmes secured funding and mentorship.

Massey Ventures, an organisation that provides support and accelerator funding for Massey Researchers, also backed their innovative product.

Concept and tech collide to prove you can get more veg in your dessert.

AGMARDT, based in Feilding, funds leadership development, innovation, and markets and invested \$30,000, which was significant to their product development. RISE UP, a seed grant and pre-accelerator programme for globally ambitious female founders, supported them with a \$5,000 grant.

As a world-first product, the formulation involved a process of trial and error. A key component to the product-development success was the access to and support of lecturers and advisors, alongside the use of Massey's Food Tech space.

After two years of developing their formulation, they successfully produced 50-litre product batches and were ready to launch their ice cream. Working part-time at Cyclista, a local George Street café, while studying for her master's and developing EatKinda, Milli and Jenni's project was well supported by owners Steve and Catherine Stannard. Cyclista became the first company in the world to launch their product.

Since launching their brand EatKinda, their ice cream has been a sellout success at Hell's Pizza, Woolworths nationwide and other retailers, as well as growing a viral social media following worldwide.

"No one actually knew how this was going to go, but four weeks after our launch at Hell's Pizza we sold out nationwide," Milli remembers.

Scaling up had to happen fast, including sourcing plastic-free packaging, organising manufacturing dates, and accessing raw materials and funding. Milli recalls the challenges of their success. "We launched in a big way, which is very rare for a brand in New Zealand in year one. It was a hard year."

Milli and Jenni are focussing on their next goal – a launch in the US, where they recently took samples of their ice cream and received strong interest and a lot of licked spoons. To make the most of their next step, Milli and Jenni made the tough decision to pause their production in New Zealand while pursuing their launch in the US.

Looking to take their inclusive eating brand global, Milli explains their objective: "We need to really think about how we can make this a Global brand ... and the market that made the most sense was the US, so we really wanted to investigate that, especially because our specific target market is bigger over there ... to be honest we're still figuring it out."

With their track record of launching a successful brand in New Zealand, the proof is in the pudding.



To keep up with Jenni and Milli's success story,

follow
@eatkinda

on Instagram
and TikTok

From paddock to podium

The New Zealand Food Awards celebrate excellence and innovation in New Zealand's Food City

For more than 35 years, the New Zealand Food Awards, proudly owned and operated by Te Kunenga ki Pūrehuroa Massey University, have celebrated excellence and innovation across New Zealand's food and beverage industry. These awards recognise the people, passion and mahi behind every product's journey, from concept to creation.

The New Zealand Food Awards exist to champion and accelerate innovation in Aotearoa's food and beverage industry, because the future of food depends on bold ideas, sustainable practices and world-class products.

By recognising and celebrating excellence, the awards aim to add value to the industry, enhance consumer connection from paddock to plate and help producers turn passion into global potential. The purpose is to support and educate the sector by empowering businesses to lead through innovation, embrace sustainability and set benchmarks that inspire progress both locally and internationally.

This year, the spotlight shines brightly on Palmerston North, a proud strategic partner of the New Zealand Food Awards, as the city prepares to host the 2025 New Zealand Food Awards Gala Dinner on 16 October at the Central Energy Trust Arena.

Palmerston North City Council, an awards partner for over 8 years, proudly acknowledges the vital role food innovation and excellence play in shaping the future of New Zealand and beyond. Committed to celebrating the talented individuals driving this progress, the Council is excited to sponsor the new Emerging Talent: Food Science and Technology category, recognising the rising professionals who

are making meaningful contributions to the industry. The Manawatū region, with Massey University at its heart, has long been a cradle for food innovation and research. The university's Manawatū campus houses FoodPilot, a state-of-the-art facility spanning more than 1,000 square metres. As the largest collection of pilot-scale food processing equipment in the Southern Hemisphere, FoodPilot offers invaluable support to food entrepreneurs, aiding in product development, safety testing and scaling up production. A recent success story is EatKinda, a multi-award winner at the 2023 New Zealand Food Awards, which used FoodPilot to scale up its unique cauliflower-based frozen dessert.

The New Zealand Food Awards encompass diverse categories, from artisan and primary sector products to health and wellbeing innovations. Entries are rigorously evaluated by a panel of more than 30 experts, ensuring that each product meets high innovation, quality and sustainability standards. Each year, the judges bring a wealth of experience and relevant technical, culinary, scientific and commercial expertise.

Beyond recognising excellence, the awards serve as a platform for producers to gain industry insights, receive expert feedback and connect with a network of partners and supporters. For the Manawatū region, hosting the awards underscores its pivotal role in shaping the future of New Zealand's food landscape.

For more information about the New Zealand Food Awards, visit:

foodawards.co.nz



CREAM OF THE CROP

Fonterra has been developing dairy in Palmy for almost a century.

From whey protein powders to butter that's easy to spread straight from the fridge, there are lots of foods we take for granted in our everyday life.

And while most of us probably don't spend time contemplating the science that's gone into food innovations over the past few decades, your neighbour might. That's because the discoveries that led to the creation of these well-known products that most of us use daily were all developed right here in Palmerston North.

That's right! For the past 98 years, the Fonterra Global Research and Development Centre team has been innovating in dairy, just out the back of Palmy. It's a big team too, of more than 350 researchers, engineers and scientists from more than 45 different nations – all calling Manawatū home. That's more than 4,000 years of collective dairy expertise, so it's fair to say they know a thing or two about dairy.

We all know Palmy people have a knack for going quietly about their business, so it's no surprise that you may not have known there is a globally renowned research institute in your backyard. But the truth is, the team's experts are the best in their field. Standing on the shoulders of giants like Lawrence Creamer and Howard Heap, who are responsible for cheese as we know it today, the current team are held in high regard by the industry all around the world.

This includes Director Dr Pierre Venter, who has received global accolades for his work in food safety.

Senior Research Scientist Dr Christina Coker recently won the prestigious Massey University Woman in Food Science and Technology Award for 2025 at the New Zealand Women in Food and Drink Awards.



Dr Coker and her team produced the first Camembert-style cheese for New Zealand in the 1970s, when few knew what such cheese should even taste like. To pull it off, they engaged the French Embassy in Wellington for their trial batches. This work provided knowledge for developing other ingredients and new products such as UHT creams, cream cheese, mozzarella, powders and beverages.

Being leaders in global dairy innovation is not new to the Fonterra centre. The team has been making world-first food advances since before World War II. Like when they discovered how to extend the shelf life of Anhydrous Milk Fat (AMF), meaning cream-based food was able to reach our troops on the other side of the world.

Making a splash overseas is a big part of the business.



The findings made here lead to majorly successful products being exported to international markets all around the world.

Fun fact: In China, every time someone enjoys a soft-serve ice cream from one of the more than 700 McDonald's restaurants, they're likely tasting the quality of Fonterra ingredients. Which, if you're wondering, happens every second!

Back here in Palmy, it is easy to picture a scientist at work, white lab coat, protective glasses, microscope and clipboard. And while there is a lot of that throughout the maze of laboratories at the facility, which uses more than four tennis courts worth of steel throughout its Pilot Plant, it's also home to a different type of expert, food technologists!

They get to work in what is, without doubt, the best kitchen in Palmerston North. Well, technically, it's a Food Lab. This creative, innovative space features aspects of kitchens from around the globe to mimic real-world working environments, so products can be truly put to the test. With plenty of thermomixers, a variety of pizza ovens, and lots more, there's always great smells emanating from here.

It is in the Pilot Plant that the process of converting milk to mozzarella was reduced from three months to just six hours!

This was a huge time and cost saving for the food industry – and delivers more delicious, gooey goodness for us pizza lovers.

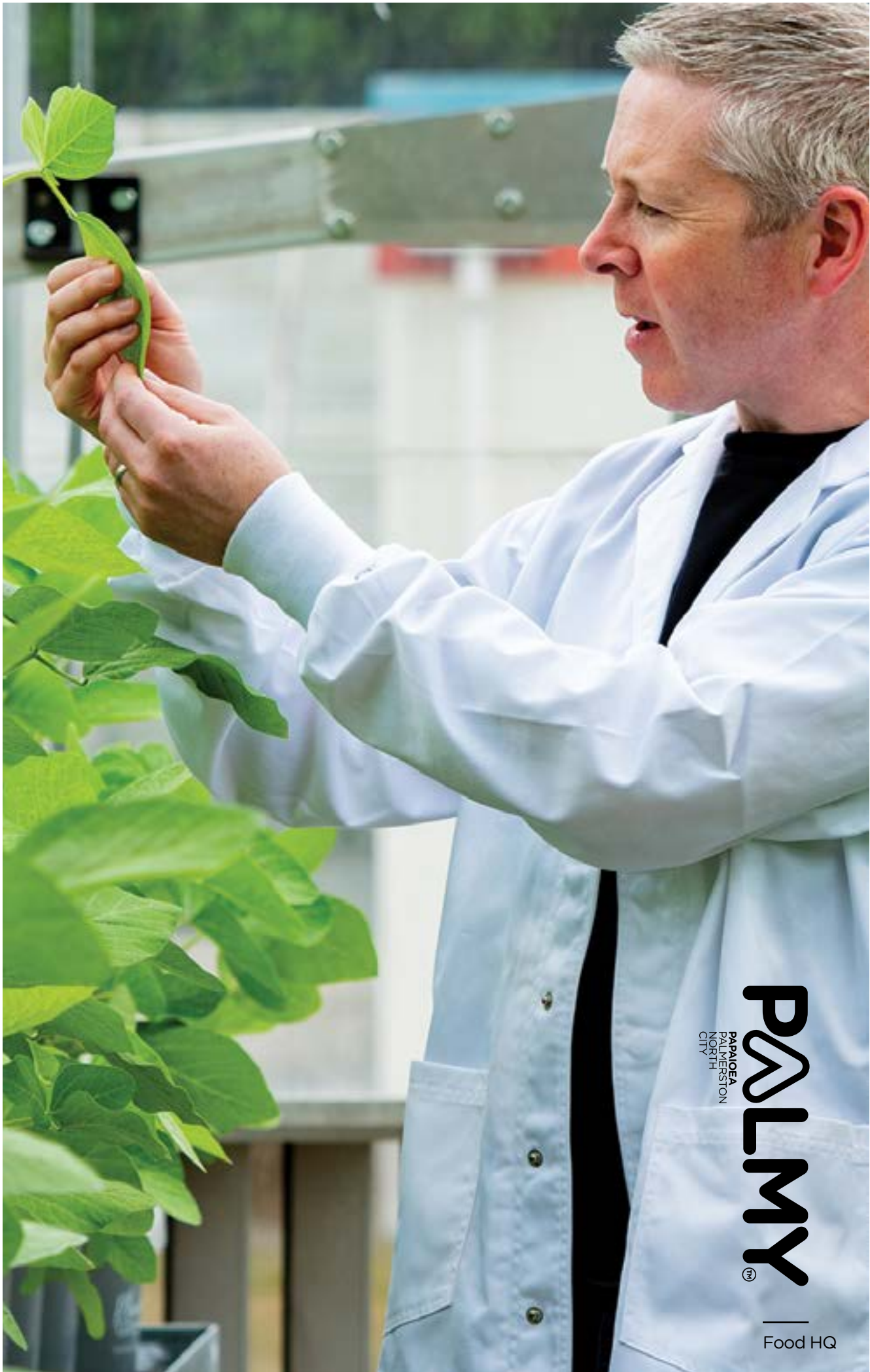
It is another product that's loved all around the world, with this mozzarella topping 50 percent of all pizzas sold in China. Plus, it is so stretchy, it can stretch up to 80cms and has even won a gold medal for the longest stretch at the World Cheese Awards. Keeping up these gold standards is a great excuse to test the product, and the team has been known to make more than 700 pizzas each year! Yum!

As we near 2027, and the Fonterra Global Research and Development Centre reaches its 100-year milestone, it's clear there will be a lot to celebrate.

Keep an eye out for your chance to join Palmy in celebrating with them soon!

Dates of note

- 1938** Developed single starter strains for making cheese.
- 1941** Extended the shelf life of Anhydrous Milk Fat (AMF), allowing cream-based food to be shipped to troops during World War II.
- 1960s** Developed the cheddarmaster to enable more automation and continuous processing of cheese.
- 1970s** World's first Whey Protein Concentrate (WPC) is developed and commercialised – delivers a high concentration of whey protein in powder form.
- 1991** Achieved what many thought was impossible by launching the world's first spreadable butter for Anchor™.
- 1991** Launched Anlene™ calcium-fortified products for bone nutrition.
- 2000** Technology developed to make Milk Protein Concentrates (MPC) cold soluble – valuable for cheese and medical beverages.
- 2008** Changed the global pizza industry by inventing IQF (individually quick frozen) mozzarella that dramatically reduced production time from three months to six hours.
- 2015** "Milk Fingerprinting" technology developed – high-speed diagnostic test that analyses milk composition and can help determine the product the milk is best for.
- 2018** Developed an ambient UHT cream that doesn't need to be chilled and maintains its quality when it reaches low or high temperatures outside.
- 2018** Partnered with Sea Forest to test if, as international research suggests, using seaweed in cows' feed can reduce methane emissions by up to 80 percent.
- 2021** Partnered with Royal DSM to test their feed additive product Bovaer®. It has been shown to reduce methane emissions from cows by over 30 percent in non-pasture-based farming systems, and the centre is looking to see if it can do the same in our pasture-based system.



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