



Justine's column



Welcome to this edition of Agri-gate.

Our 'Food and Fibre Future' conference on 1 November is approaching fast. This unique one-day conference will look 10 to 20 years into the future and consider how New Zealand's primary industries can prepare for the challenges and

opportunities it will bring.

The conference has three sessions: session one will look at the important role nutrition, health and wellbeing will play in our food future; session two will discuss global trends, issues and challenges that are likely to shape our future; and session three will move the focus from global trends to actions taking place in New Zealand right now.

The day is shaping up to be a thought provoking and informative day. We have a great line-up of speakers from both New Zealand and overseas. This includes Steve Maharey, Vice Chancellor of Massey University; Joe Mariani, series editor for Deloitte's research campaign on the 'Internet of Things (IoT)', which examines the impact of IoT on a diverse set of issues from business strategy to technical trends; and Ian Proudfoot, who leads KPMG's Consumer/Industrial Markets and Agribusiness lines of business.

Keeping the day on track will be Dr Scott Champion, who many will know from his significant experience in the primary industries – including seven years as Chief Executive of New Zealand Beef + Lamb.

You can find information on our [MPI website](#), including a registration brochure, registration details and speaker profiles.

I'd like to congratulate Constellation Brands who received the 'Business Innovation Award' at the recent 2016 New Zealand Food Awards. Constellation Brands is a partner in the Lifestyle Wines PGP programme, and received the award for their VNO Lighter wine range – a wine with lower calories and alcohol content – developed using innovative natural techniques. The judges commended Constellation Brands on its work to diversify New Zealand wine styles in its collaboration with New Zealand Wine Growers and the Ministry for Primary Industries through the PGP.

I'd also like to congratulate Fonterra who received the Innovation in Food and Beverage Award at the 2016 New Zealand Innovation Awards for its research into infant nutrition and the role of gangliosides, a complex lipid in human breast milk that is believed to aid cognitive development in new-borns and toddlers.

This research is a product of the Transforming the Dairy Value Chain PGP programme.

This month we announced the results of the Erosion Control Funding Programme 2016 round. 37 Gisborne properties will receive \$2.39 million worth of treatment to combat erosion on 1438 hectares of land. Supporting farmers to combat the effects of erosion is critical as it can have a negative economic and environmental impact on the district's hill country farms, infrastructure, waterways and high-quality land on floodplains. My team will continue to work with land owners who have been granted funding as they carry out the treatment process on their land.

JOIN US ON 1 NOVEMBER FOR THE SHAPING NEW ZEALAND'S FOOD AND FIBRE FUTURE CONFERENCE

The Ministry for Primary Industries (MPI) invites you to join us for a journey into our food and fibre future.

We'll be taking a look 10-20 years into the future and considering how New Zealand's primary industries can prepare for the challenges and opportunities it will bring. For example:

- Who might our customers be in 10 to 20 years' time?
- What products might they want?
- What emerging trends do we already know about?
- How might future drivers change the way we grow and process our food, beverage, fibre and forestry products?
- How might pharmaceuticals and nutraceuticals create new products and markets for our primary industry products?
- What R&D do we need to undertake in the near future to be able to meet these needs?
- Where do we need to invest now to improve our capability and resilience?

Please turn over





Last month we surveyed readers to find out what you think about Agri-gate. Thanks to everyone who completed it. Many of you told us that you currently enjoy the content and its variety and made suggestions for other things we can cover. The general theme was that you would like to continue seeing variety, so we will aim to cover a broad range of topics and programmes each month. Many also said that they would prefer Agri-gate to come out bi-monthly. Watch this space.

This year's Christchurch A&P Show is fast approaching. If you are attending, we welcome you to visit our MPI site and have a chat. We will also be holding a celebration event for our Afforestation Grant Scheme on the Thursday and we would like to invite you to join us and the Associate Minister for Primary Industries Hon Jo Goodhew for an afternoon tea as we announce this year's results. You'll find more details on the event in this newsletter.

We hope you enjoy this month's edition of Agri-gate.

Justine Gilliland
Director Investment Programmes.

From the Chair, PGP Investment Advisory Panel



The PGP Annual Meeting on 1 November will mark my first. Annual meetings provide a good opportunity to celebrate, learn and network.

These meetings bring together programme partners to acknowledge the progress and achievements of PGP programmes over the course of the previous financial year.

Each individual programme's achievements are significant. However, when you look at the achievements across the PGP programme portfolio you really get an appreciation of the significance of the benefits and progress that programmes are enabling for our primary industries.

Annual meetings also provide the opportunity to learn about other areas of the PGP, and also from each other. At the annual meeting, we'll hear from our two newest PGP programmes: Wool Unleashed (W³) that kicked off in February, and Sheep – Horizon Three that was announced in August.

These meetings also provide an opportunity for programme partners to meet or catch up with each other, discuss current opportunities, see new opportunities, progress towards tackling common challenges and build up a network of like-minded people. Indeed, one of the spill-over benefits of PGP programmes is collaboration.

PGP programmes continue to deliver tangible benefits across the board both individually and together. For example the Red Meat Profit Partnership, Transforming the Dairy Value Chain and Farm^{IQ} programmes have collaborated on farm data initiatives, including the

development of DataLinker – an industry tool that makes authorised data transfer secure and easy.

These programmes saw benefits in pooling resources to achieve a common goal. This had obvious benefits from an efficiency perspective and enabled the programmes to share the load and combine expertise while delivering something that will benefit industry.

Further examples of PGP programme achievements will be included in the PGP's 2015/16 Annual Report which will be released at the annual meeting on 1 November which, of course, will be followed by the 'Food and fibre future' conference and PGP Expo.

I look forward to seeing many of you there.

John Parker
Chair of the IAP

PGP programme update

FoodPlus

Surgical tissues

ANZCO has taken on a range of new roles, not usually associated with a meat company, to develop the healthcare part of its FoodPlus PGP programme.

This has enabled the company to harvest bovine pericardium – the strong membrane surrounding an animal's heart – traditionally used in replacement heart valves and surgical patches.

"We don't know of any other meat company involved in harvesting and further processing of these sensitive tissues, and this meant we had to start from scratch to develop processes and identify markets," says ANZCO Food & Solutions CEO Rennie Davidson.

"ANZCO already had good global supply chains and quality processes for the red meat part of its business. We've been able to leverage and enhance these to work with tissues for bio-medical applications.

"We've needed to expand the skill base of our traditional business to encompass new expertise in laboratories and chemistry; understanding medical devices and their markets; and the specialised quality systems associated with healthcare products."

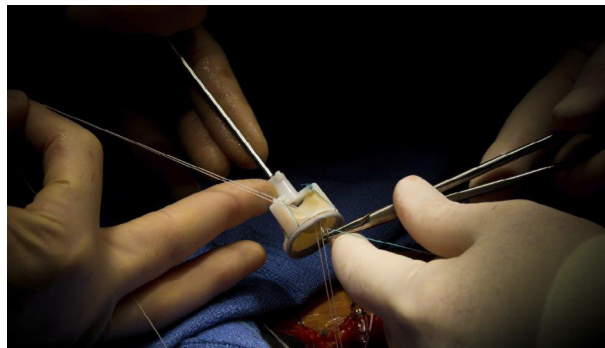
ANZCO says the new team has worked closely with existing teams from across the company including processing employees, documentation teams and vets to be able to transition into the new healthcare area.

Through the FoodPlus PGP programme ANZCO was able to learn how to process the fresh tissues and the logistics involved in handling the fresh tissue to ensure it arrived at its international destination in good condition.

"We have achieved ISO 13485 accreditation for medical devices and 'EDQM certification' which makes it easier for clients to get the products to market and undertake clinical trials using our material," says Rennie.

"Being backed by a strong and established company like ANZCO has given international customers confidence and opened doors for the healthcare part of the business.

"We're very early on in the development of the bio-tissues part of our business, and there are certainly other healthcare opportunities to be explored," he says.



Nourishing food

Restaurants can have the benefits of slow-cooked cuts without having to commit the time and resources needed to cook them, thanks to a range of value-added products created through the FoodPlus PGP programme.

ANZCO has recently commercialised a range of slow cooked ribs and lamb shanks for food service and retail under the brand Nourish.

FoodPlus is about adding value to lower value products and

PGP investment enabled us to develop this new range from scratch.

"The two-year long process was market-led and started with a market need. Through this we identified the slow cooked opportunity particularly for food service," says Rennie.

"The next step was to produce and test product concepts. Initially we had barbecue flavoured options that are popular in New Zealand and Australia, but less so in other countries. We refined these options to a seasoned option, which can be enhanced with different sauces."

Part way through the development, one of ANZCO's manufacturing sites installed a thermoformer which vacuum packs during the process giving a tidier finished product and a better process flow. This meant the company had to modify that stage of the process.

"The PGP enabled us to spend time working out how to make a new slow cooked vacuum packed product – including sorting out cooking times, temperatures and developing recipes – and take it through to commercialisation," says Rennie.

"The commercialised products are now being trialled in a number of international markets.

"This has demonstrated that demand is there if we get the product right and so the next step is to add new products to the Nourish range based on other cuts and flavours," he says.



Taking stock

New plant is being used to help ANZCO's FoodPlus PGP programme develop stocks and broths.

"The plant investment was from outside FoodPlus but it gave us the confidence to buy the plant," says Project Manager Mike North.

While researching international demand for the stocks and broths part of the FoodPlus PGP programme ANZCO and its joint venture Taranaki Bio Extract (TBE) found the extract plant for sale in Australia, bought it and relocated the equipment to Taranaki.

The plant is used to support FoodPlus and is developing new products for new markets for stocks and broths. The applications include using them for soup and noodle flavouring in Korea.

"The base for a traditional Korean soup takes more than 12 hours to make. Our stock can be used instead to reduce this preparation time," says Mike.

"The range of natural products manufactured at the plant could be used for anything that requires stock as a key ingredient including sauces, gravy, pies and flavouring."

TBE was originally established to add value to material from the boning room (from processing sites). Through the PGP it has been researching and developing new products to commercialise.

About FoodPlus

- FoodPlus is about developing new and innovative uses for the parts of the red meat carcass that currently generate less value.
- ANZCO is focusing on developing new innovative food, ingredients and healthcare products. It's about improving the value to the carcass to secure a more viable future for the meat industry and maximising important food and revenue opportunities.
- Some of the things ANZCO is looking at under the FoodPlus PGP programme are meals, protein

supplements, stocks, broths, extracts, seasoning oils, and medical and surgical products.

- FoodPlus started in November 2012
- It runs for 7 years
- PGP funding: \$29 million
- Industry funding: \$29 million
- The estimated potential economic benefits to New Zealand is a \$200m increase in GDP per annum by 2025.

About ANZCO Foods

ANZCO Foods is one of New Zealand's largest exporters. It procures and processes prime New Zealand beef and lamb, designs and creates sophisticated food and healthcare solutions and markets its products to more than 80 countries.

The FoodPlus programme is managed by ANZCO's Food & Solutions business.



In other news...

Sustainable Farming Fund spotlight: Soil, Food and Society online teaching resource

This month, Soil, Food and Society launched a new web-based science teaching resource focused on the 'story of where our food comes from' and the importance of New Zealand's primary sector.

Supported by the Sustainable Farming Fund, the resource is designed to help educators teach primary and intermediate students to think scientifically about food production. It offers teachers lesson plans that are integrated with the NZ Curriculum and tailored to suit Years 5-6, 6-7 and 7-8. For students, it provides independent learning opportunities that engage them in scientific investigations and help them present their findings in a scientific way.

The resource explores three interconnected areas – plants are earth's engine; our food garden; and the chain in my lunchbox. Importantly, the resource promotes discussion and understanding around the critical roles that agriculture and horticulture play in our society.

The Soil, Food and Society resource has been previewed to educators at the recent Ulearn Conference, New Zealand's largest educational symposium, in preparation for use in the classroom from Term 1 of 2017.

Feedback gathered from users will be utilised to enhance a second version of the resource, which will be launched in late 2017.

The resource can be accessed at www.soilfoodsociety.online and via @soilfoodsociety on Twitter.

The project is led by Soil Food and Society and is funded by the Sustainable Farming Fund, The Fertiliser Quality Council, DairyNZ, Federated Farmers, Horticulture NZ, Core Education, House of Science, Ravensdown, Ballance Agri-Nutrients, Irrigation New Zealand and NZ Young Farmers.



Growing our future – thinking global

In early October, MPI released a video featuring The New Zealand Merino Company (NZM) Global Partnerships Manager Dave Maslen as part of the Growing our future – primary industry champions initiative. Dave provides insights about what's required for New Zealand's primary industries to stay competitive in international markets. He also talks about the diverse range of skill sets available within NZM – from designers to scientists to marketing specialists.

As Dave states in his interview, the primary sector is changing rapidly. "Some of the major trends are around traceability, animal welfare, environmental integrity, social responsibility.

They're not just a value add these days ... Actually, it's a right to transact today. If you're not in that space you're not really even at the table."

MPI Science and Skill Policy Manager Naomi Parker says Dave's understanding of consumer expectations and his commitment to New Zealand's primary industries made him an "obvious choice as one of MPI's first champions through the Growing our future initiative".

Dave Maslen's video is available on MPI's YouTube Channel [here](#).



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Prime Minister John Key and Primary Industries Minister Nathan Guy launched the *Growing our future – primary industry champions* initiative at National Fieldays in June. The initiative celebrates people who are doing great things in the primary industries and demonstrates the wide variety of

jobs and skills in the sector. The aim of the initiative is to help meet the future skills needs of the primary industries, raise the profile of primary industry careers, and spark interest from a new generation.

More information about the *Growing our future* initiative is available on the [MPI website](#).

Using Eucalyptus trees to offset carbon emissions

MPI's Sustainable Land Management and Climate Change (SLMACC) Research Programme invests in crucial research that supports our agriculture and forest sectors faces the challenges that arise from climate change. Funded projects can be carried out over 1–3 years.

Scion Research has recently completed their three year project focused on *evaluating the productivity and carbon sequestration potential of Eucalyptus fastigata, Eucalyptus regnans, and Eucalyptus globoides in New Zealand with spatial process-based modelling*.

So what does that all mean and what did they find out?

The 2015 Paris Agreement requires countries to set or improve their emission targets to help reduce global temperature rise to be well below 2 degrees. One of the key parts of New Zealand's Emission Trading Scheme is to offset emissions with the establishment of forest for carbon sequestration. Carbon sequestration is the process of removing carbon dioxide from the atmosphere, which is done naturally through trees as they absorb carbon.

Eucalyptus species are well suited for this as they are fast growing and have a higher wood density than many exotic tree species, including pine. However, little data is available on the productivity and carbon sequestration potential of these species throughout the country.

This study investigated the potential of three of the most promising Eucalyptus species in New Zealand – Eucalyptus

fastigata, Eucalyptus *regnans*, and Eucalyptus *globoides*.

The results shows that all three species absorbed the most carbon near the coast and in the North Island. Overall, Eucalyptus species which absorbed the most carbon on average nationwide was Eucalyptus *regnans*.

The results of this study casts light on the carbon sequestration values of the three Eucalyptus species and will provide confidence to decision makers when considering planting Eucalyptus to off-set carbon emissions in New Zealand.

The results of the research will be published in coming months in the open access [NZ Journal of Forestry Science](#).

For more information on the Sustainable Land Management and Climate Change Research Programme, head to www.mpi.govt.nz



You're invited...

The Associate Minister for Primary Industries, Hon Jo Goodhew and MPI Director-General Martyn Dunne would like to invite you to join them to celebrate the achievements of the Afforestation Grant Scheme and welcome the 2016 funding results.

The event will give you the chance to hear directly from Minister Goodhew about the Afforestation Grant Scheme and how it contributes to New Zealand's environment.

Details

When: Thursday 10 November 1.45pm

Where: Canterbury A&P Show, MPI marquee, Dairy Row next to the Village Green

RSVP: If you would like to attend please RSVP by Monday 7 November to anna.gordon@mpi.govt.nz or phone 04 894 0246.

We look forward to seeing you at the show.



Register now for Protecting to Grow New Zealand: Biosecurity Forum 2016

Whether you're a home gardener, a farmer, a fisherman, a grower, an avid internet bargain hunter or international globetrotter, protecting to grow New Zealand is everyone's business.

Join us at 'Protecting to Grow New Zealand: Biosecurity Forum 2016' to launch the Biosecurity 2025 Direction Statement and hear from national and international experts about the future of biosecurity in New Zealand.

At the two-day forum we'll focus on the important role of our global biosecurity system to protect and grow New Zealand's unique environment, economy and people.

The forum will be held in Auckland at the Pullman Hotel on Tuesday 22 (Forum) and Wednesday (Workshops) 23 November 2016.

Find out more on MPI's website

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