

Agri-Gate

Ministry for Primary Industries
Manatū Ahu Matua



News from the Primary Growth Partnership

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Justine's column



The highlight for June was definitely the National Fieldays in Hamilton.

The theme of this year's Fieldays was 'Collaborate to Accelerate Innovation', which is a good fit for the PGP, as PGP programmes are enabling significant collaboration both within and across primary

sectors and they're delivering cutting-edge innovation.

This year we featured a PGP site attached to the main Ministry for Primary Industries (MPI) site. Its centre piece was a mixed media display featuring video, audio and other material that provided examples of some of the innovations being enabled by a range of PGP programmes.

The other key aspect of our site was a schematic-type graphic spanning the entire back walls of the site, which showed different outcomes from PGP such as: delivering cutting-edge technology, research and development; connecting sectors; developing high value food products; keeping people safe; and protecting our environment. You can see this graphic on our website <http://www.mpi.govt.nz/funding-and-programmes/primary-growth-partnership/> and see some photos on this page.



PGP site at Fielddays featuring all 21 PGP programmes.



FarmIQ's site.



Ballance Agri-Nutrients' site showing tools developed through their Clearview Innovations PGP programme.



Mānuka Farming New Zealand's site about the High Performance Mānuka Plantations PGP programme.

We also held two short 'drop-in' events at our site for current PGP programme partners attending Fielddays, and companies who might be interested in future investment from the PGP.

It was great to see some of our PGP programmes represented at the Fielddays too, including High Performance Mānuka Plantations, Clearview Innovations, Pioneering to Precision and FarmIQ. The Red Meat Profit Partnership (RMPP) hosted three panel discussions on their work to help farmers improve their profitability and productivity through new ideas, new technology solutions and new practices.

Speaking of RMPP, this month marked the first anniversary of its Pilot Farms programme. Since its launch last year, it's been delivering significant benefits for farmers, who are valuing the learning and changing their on-farm practices for the better. With almost 70 farm businesses currently involved in the programme, three more are set to join to form a new group in the lower North Island. The pilot activities range from workshops with rural experts on tasks ranging from body condition scoring, using software for feed budgeting, soils, forage and nutrition through to one-one sessions. All of this activity is leading to an in-depth understanding of what works best for farmers for learning and changing, so it can be developed into a national programme.

I'd like to acknowledge and congratulate Chris Kelly for his appointment this month as an Officer of the New Zealand Order of Merit (ONZM), awarded in the latest Queen's Birthday honours. Chris has a long-standing and valued involvement in the primary industries and chairs the programme steering group for the Transforming the Dairy Value Chain PGP programme.

The 2016 funding round for the Afforestation Grants Scheme (AGS) closed this month. We received 91

applications in total and after completing full eligibility assessments of all applications, notifications will be sent to applicants around September. The applications totalled around 5 000 hectares of potential forest, however the final hectares will be confirmed following the eligibility assessments. The AGS funding programme is designed to help establish 15 000 hectares of new forest between 2015 and 2020.

We also this month closed the 2016 funding round for the Erosion Control Funding Programme. This fund aims to assist land owners to reduce the wide-scale erosion problems in the Gisborne district.

This month we profile the SPATnz PGP programme and our Sustainable Land Management and Climate Change funding programme, highlight the upcoming changes to the Irrigation Acceleration Fund (from 1 July), and present the 'Growing our Future – primary industry champions initiative' launched at Fielddays.

I trust you will enjoy this edition of Agri-gate and welcome your feedback.

Regards

Justine Gilliland
Director Investment Programmes

From the Chair, PGP Investment Advisory Panel



The IAP's focus this month was on reviewing annual plans for PGP programmes. Programmes are required to develop and submit annual plans that set out each programme's activities for the year ahead, in this case 2016/17.

As with any large programmes of innovation, PGP programmes are complex and carry some degree of risk. The annual planning process provides a useful opportunity for programmes to review and recalibrate any aspects that need attention. By using this 'fast-fail' approach, programmes can focus on those aspects with a stronger likelihood of success and occasionally advise on work that should cease.

Annual plans also enable the IAP and MPI to provide input, advice and guidance, to assist programmes to be successful and deliver the intended benefits for the primary industries and New Zealand as a whole.

In reviewing annual plans, I've been impressed by the breadth of work being undertaken by PGP programmes and the work planned for the future.

There are many interdependent aspects to PGP programmes. This means many programmes are complex and require a broad range of inputs and knowledge across a range of disciplines. In many cases it encourages industry participants who've never previously cooperated, to do so, to mutual advantage. A very positive process!

The IAP and MPI are increasingly interested in stronger reporting against milestones, timelines and Key Performance Indicators – in other words somewhat harder metrics, but at the same time there is a desire to reduce the paperwork required of applicants and participants. These are not opposing goals and simply require more effort to determine what information is necessary to measure progress and to put emphasis on reporting programme outcomes rather than inputs.

John Parker
Chair of the IAP

PGP Programme Spotlight

SPAT_{NZ}

The SPAT_{NZ} PGP programme, funded by Sanford Ltd and MPI, aims to drive a step change in New Zealand's Greenshell™ mussel industry through selective breeding – and it's making great progress. To date the mussel industry has relied on wild spat (baby mussels), so to implement selective breeding we need to learn to rear mussels in a hatchery at scale. This requires the development of techniques, infrastructure and specially trained staff.

SPAT_{NZ} began operating a pilot scale hatchery in early 2015. The facility is purpose built, and provides the ideal platform for developing and improving spat production methods.

“Production of top quality micro-algal food for the hatchery mussels is a pre-requisite for success,” says SPAT_{NZ} Programme Manager Rodney Roberts.

“Our algal production unit has been a great success, and now churns out about 25 billion cells per minute, around the clock.

“The trickiest part of Greenshell™ mussel spat production is the swimming larval phase, which lasts for around three weeks after fertilisation. The larvae are extremely sensitive, microscopic creatures, and some batches of larvae don't make it through to settlement. After settlement the tiny spat are more robust and grow over several weeks to about 1 mm shell length before being transferred onto mussel farms.

“We have been getting very good survival of spat after transfer to the sea, which is pleasing given the myriad of environmental influences, and the challenges that this phase presents for wild spat.”

Through summer 2015-16 SPAT_{NZ} started to achieve batches of spat at the scale targeted for Stage 1 of the programme.

“The next challenge is to step this up about three fold and increase consistency further, so in future we can reliably deliver spat at the scale required to make a big difference to the mussel industry,” says Rodney.

The programme aims to commence this second phase at the start of 2017.

The development of a wide range of selectively bred Greenshell™ mussel ‘families’ is progressing well. The programme has now produced three breeding runs and also established a range of studies investigating aspects of biology critical to selective breeding.

“We recently produced selected strains at a larger scale and will monitor them through farming, harvest and processing alongside wild mussel controls to benchmark benefits using normal commercial methods,” says Rodney.

A key part of the programme's human capability development occurs through its training partnership with the Nelson-Marlborough Institute of Technology (NMIT), which offers diploma and degree level aquaculture training. NMIT has an aquaculture teaching unit at the Cawthron Aquaculture Park, where SPAT_{NZ} operates.

“SPAT_{NZ} staff are heavily involved in a month-long mussel hatchery exercise that takes the students through the whole process of attempting to rear larvae from egg to crawling spat,” says Rodney.

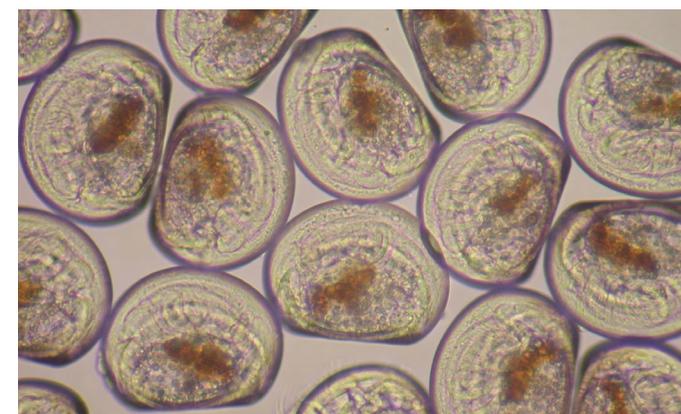
“We also facilitate a research project relating to mussel breeding, organise a tour of mussel farming and processing, and take students on two-week work placements. The placements are an excellent testing ground for future employment – students discover whether they have a passion

for hatchery work, and SPAT_{NZ} learns a lot about prospective employees.

Three NMIT aquaculture graduates now work full time at SPAT_{NZ}.



SPAT_{NZ} hatchery at the Cawthron Aquaculture Park in Nelson.



Spat under microscope.

Sustainable Land Management

The Sustainable Land Management and Climate Change Programme (SLMACC) is open to receive applications.

The SLMACC research programme has been running since September 2007. It aims to help the agriculture and forestry sectors address the challenges arising from climate change.

The research programme is directed at:

- enhancing and supporting adaptation to climate change;
- reducing agricultural greenhouse gases;
- encouraging the establishment of forest sinks; and
- managing deforestation and capitalise on new business opportunities arising from the world's response to climate change.

Funding Available

The total funding available for the 2016/17 financial year is \$1.6 million excl GST.

The available funding will be spread across three research themes:

Research Theme 1: Impacts of climate change and adaptation;

Research Theme 2: Mitigation of agricultural and forestry greenhouse gas emissions; and

Research Theme 3: Crosscutting issues including information and technology transfer.

Under each of these research themes, (MPI) has specified a number of “priority topics”. More information on the fund and the priority topics can be found at:

<https://www.mpi.govt.nz/funding-and-programmes/farming/sustainable-land-management-and-climate-change-research-programme/>



Extreme weather events as a result of climate change can affect our natural environment.

Growing our Future

Growing our future – primary industry champions initiative launches new videos

Over the past few months MPI has filmed interviews with 41 “everyday” champions across the primary industries as part of its Growing our Future – primary industry champions initiative. Several of these champions are involved in PGP programmes, including Volker Kuntzsch from Sanford (partner in Precision Seafood Harvesting), Mark Ferguson from The New Zealand Merino Company (partner in NZSTX and Wool Unleashed) and Cather Simpson from the University of Auckland and the Photon Factory (involved in Transforming the Dairy Value Chain).

The aim of the initiative is to encourage young people to consider employment in the primary industries across the full supply chain, as well as to build overall public awareness about the primary industries and their importance to New Zealand's future.

MPI has developed an overview video that features many of our primary industry champions and a few well-known New Zealanders (Richie McCaw, Sir David Fagan, Rob and Sonia Waddell and others) who have a connection to the primary industries. The overview video along with some of the first videos are now available on the MPI website.

The Growing our Future initiative is part of a larger programme of work for MPI that is focused on the future needs of the primary industries. MPI now has a dedicated area on its website about future skills within the primary industries.

If you have suggestions for how we can promote our current champions or ideas for future champions, please contact MPI Principal Adviser Richard Lynch at richard.lynch@mpi.govt.nz.



Matthew Bell, Equity Farm Manager and Young Farmer of the Year in 2015 and one of MPI's primary industry champions.



Cather Simpson, Associate Professor at University of Auckland and Director of the Photon Factory, one of MPI's primary industry champions.

Irrigation Acceleration Fund

Changes to the Irrigation Acceleration Fund.

On the first of July, operational changes to the way the Irrigation Acceleration Fund (IAF) is managed will come into effect. Minister Guy announced the changes on 18 May and teams from Ministry for Primary Industries (MPI), The Treasury and Crown Irrigation Investments Limited (CIIL) have been working together to ensure there is a smooth transition to the new operating model.

From 1 July, CIIL will take over the responsibility for managing grant funding supporting the development of regional-scale irrigation schemes in the early stages. This is currently delivered by the MPI through the Irrigation Acceleration Fund.

MPI will continue to manage grant funding for community irrigation schemes and strategic water management studies.

MPI will also continue to be the first contact for schemes looking to access government funding for irrigation and water management projects.

For more information on the Irrigation Acceleration Fund and the changes from 1 July can be found at www.mpi.govt.nz/funding-and-programmes/natural-resources/irrigation-acceleration-fund/



Irrigation in action.

Sustainable Farming Fund

Sustainable Farming Fund projects sought for 2017/18 funding round.

Groups interested in receiving support through the Sustainable Farming Fund are encouraged to get in touch before the next funding round opens.

Applications for the 2017/18 funding round will open on 1 August and MPI Investment Advisers are available to discuss project ideas and assist applicants through the process.

The Sustainable Farming Fund supports grass-roots projects that help farmers, growers and foresters to tackle problems and develop new opportunities. The maximum investment MPI can provide to any one project is \$200 000 per year over three years. Projects that are eligible include applied research, technology transfer and extension, and field trials and demonstrations.

If you have a project in mind and wish to discuss eligibility and the application process with an MPI Investment Adviser, please contact 0800 00 83 33 or email funding@mpi.govt.nz.

The funding round will be open for five weeks from 1 August. Information on the fund and how to apply can be found at www.mpi.govt.nz/sff



A Sustainable Farming Fund project in action at the Marlborough Research Centre, the project looks at sustaining vineyards through practical management of grapevine trunk diseases.