

Agri-Gate

News from the Primary Growth Partnership

Ministry for Primary Industries
Manatū Ahu Matua



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Justine's Desk



The PGP independent Investment Advisory Panel considered the proposals from the tenth PGP funding round at their meeting this month, and approved one of the four proposals to proceed to developing a business case, with further information to be provided before the business case is submitted. This marked the completion of the tenth funding round for PGP since the first round was opened in 2009. Since the PGP's inception, 105 proposals have been received in total, with 18 resulting programmes underway or completed, and four potential programmes currently in the business case development stage. The next funding round is currently planned for 2015.

On 1 August, we held our second workshop in a series of topical workshops for PGP programmes.

The first, on Intellectual Property and Intangible Assets, was held on 25 July, with discussion covering new thinking around managing intangible assets effectively. The second workshop focused on Extension Strategies, which is a key element of many PGP programmes and a strong focus for MPI in terms of overall outcomes from the PGP.

The Extension Strategies workshop involved discussing an overall framework for thinking about extension – from technology transfer to adoption, adaptation and co-innovation. Thinking about extension in these four ways brings a new light to how organisations think about how to undertake extension activities – designing the activity based on the level of change desired, rather than a 'one size fits all' approach. PGP programmes shared ideas and plans, and used the workshop to discuss the kind of extension strategies and activities best suited to their goals.

A third workshop, focused on data and information use and support in the primary industries, is in the planning stages.

We're also planning and preparing for our Annual Meeting and Expo. These will be held on 6 November in Wellington and will provide an opportunity for all PGP programmes to share their experiences and understand each others' programmes, as well as showcase the programmes to a wider audience. This year's Expo – the second ever – will be held in the afternoon, and will feature all 17 PGP programmes currently underway, as well as the first completed PGP programme – the Stakeholders in Methyl Bromide Reduction (STIMBR) programme mentioned in our last edition of Agri-gate. We're looking forward to another successful, informative and engaging Expo, following the success of last year's inaugural Expo, attended by nearly 200 MPs, business people and government officials.

Justine Gilliland
Director PGP

From the Chair



The panel met on 11 August where we considered – as Justine mentioned – four proposals from the latest funding round. We also continued with our monitoring role and considered and discussed progress on a number of our programmes as highlighted in their quarterly reports.

One thing that is obvious to me through all of our programmes is the value of collaboration and communication, and quite frankly sharing of information throughout the value chain. Historically – and as part of human nature – we tend to think that giving information about what we have or know as part of a value chain is giving away our competitive advantage. However, so often the reverse has proven to be true. By sharing information, not only are we increasing the overall size of the prize pool, we're also generally enabling our part of the value to be realised.

One such example of both utilisation of information and sharing of information throughout the value chain is the newly released Farm^{IQ} Farm Management System. The Farm Management System is a fundamental part of the Farm^{IQ} PGP programme and its vision to create a consumer driven, integrated value chain for red meat, delivering sustainable benefits to all participants: farmers, processors and marketers. The Farm Management System has now been commercially released following significant efforts. The system is an information hub where all farm information is captured enabling – amongst other things – comparison and benchmarking, quick recall and searches, ease of sharing with others, and a link to the market, to link up carcass performance and what was done on farm. This is a true example of

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sharing of information through the value chain. It enlarges the size of the prize pool overall, through getting better animals to market with premium returns. It also enables the farmer's part of the value to be realised, through identifying which animals or farm systems deliver to market specifications, and what works well so that farmers can benefit from premium returns.

This is one of a number of examples that the Investment Advisory Panel is seeing where PGP programmes are driving collaboration across the value chain. Others include the New Zealand Avocados Go Global programme that has a strong focus on knowledge sharing across the avocado industry. This programme will develop an information portal to strengthen the flow of information and assist in increasing the performance and efficiency of the avocado supply chain.

Another example is the High-Performance Mānuka Plantations programme (profiled in July's edition of Agri-gate) that involves some of the major players, big and small, in New Zealand's mānuka honey industry. Interests from across all aspects of the mānuka honey supply chain are represented, and they're pooling resources to work towards a common goal of enabling significant productivity gains in medical grade mānuka honey to drive the industry forward.

As you'll be able to tell from my column, I'm a firm believer in the significant benefits that collaboration across value chains can bring, and the PGP's role in enabling this. Working this way will bring obvious benefits for New Zealand for many years to come.

Joanna Perry
Chair, Investment Advisory Panel

Programme Spotlight

SPATnz-selectively bred, high-value shellfish

Undoubtedly the Greenshell™ mussel is one of New Zealand's most iconic seafood products—it's renowned around the world and pulls more than \$250 million in domestic and export earnings each year into New Zealand's economy.

To realise the full potential of the Greenshell™ mussel the mussel farming industry needs to overcome current challenges, such as the current reliance on collecting baby mussels (spat) from the wild. This reliance can lead to variability in the supply and performance of mussels.

However, this is set to change, thanks to the Shellfish Production and Technology New Zealand Ltd (SPATnz) PGP programme – a partnership between SPATnz, Sanford Limited and the Ministry for Primary Industries (MPI) which kicked off in November 2012. Industry and MPI are each contributing \$13 million towards this PGP programme over seven years.

SPATnz Programme Manager Dr Rodney Roberts says New Zealand Greenshell™ mussels are naturally a superb product because of their sustainability, nutritional benefits and culinary qualities.

"Our programme is focused on enabling the mussel industry to improve returns by using selective breeding to enhance desirable traits such as a faster growth rates, increased resilience and vibrant colour."

If the technology developed through this programme is adopted broadly throughout the sector, GDP could increase by an estimated \$193 million per year from 2026.

Earlier this year, a team of scientists from SPATnz and the Cawthron Institute nurtured 80 "families" of hatchery-produced spat taking a major step forward in the breeding programme.



Contrasting growth potential: mussels from two families that were spawned on the same day and grown in the same place throughout their life.

The breeding programme is conducted jointly with the Cawthron Institute, which has a long history of research in this field.

"Our collaborators at the Cawthron Institute provide the genetic expertise to the programme. This includes the use of computer modelling to help select the ideal mussels to use for breeding," says Rodney. "The model takes into account the performance of the mussels we have available for breeding but also that of their parents or grandparents."

"Our breeding programme will deliver production gains by shortening growth cycles, improving yield and increasing uniformity. We can also breed mussels for specific, high-value markets and will investigate the market potential of one or more specialised strains."

To provide a consistent supply of mussels with the characteristics demanded by premium markets, selective breeding of mussels in captivity is essential.

"Wild spat sources allow little control over the quality of the crop, whereas selectively-bred spat can be produced from the very best parents," says Rodney.

SPATnz is constructing a new pilot hatchery at the Cawthon Aquaculture Park near Nelson, due for completion around the end of this year, with the first spat scheduled to be produced from 2015.

"We're making good progress constructing our new pilot hatchery, and we are excited by the opportunities this will bring. Developing methods to produce baby mussels at industrial scale is a key step in being able to deliver the benefits of selective breeding," says Rodney.

"The research, innovation in hatchery technology and enhanced capability enabled through our programme will be a breakthrough for our aquaculture industry, and provide significant economic and environmental returns.

"Traditional selective breeding continues to deliver huge gains in virtually every primary production sector on land, and with the help of this PGP programme, can now do the same for mussel farming."



At harvest size, mussels are assessed for a wide range of traits.



Construction of a purpose built pilot hatchery will allow research at the scale required. The hatchery is due for completion late 2014.

Overview of Primary Growth Partnership Investment

Sector	Programme Name and Co-investor	Total investment \$ million	Sector total \$ million	Estimated benefits \$ million (per annum)
Wool	NZ Sheep Industry Transformation (NZSTX) NZ Merino	37	37	250
Dairy	Transforming the Dairy Value Chain Dairy NZ/Fonterra	170		2700
	New Dairy Products and Value Chains Whai Hua Limited Partnership	3	173	8.6
Fishing & Aquaculture	Shellfish – The Next Generation Shellfish Production and Technology NZ (SPATnz)	26		81
	Precision Seafood Harvesting Precision Seafood Harvesting (PSH)	53	79	43.6
Meat	FoodPlus – Redefining Meat Horizons ANZCO	87		630
	Marbled Grass-fed Beef Grass-fed Wagyu Ltd	23		80
	Red Meat Profit Partnership Red Meat Profit Partnership (RMPP)	64		194
	Integrated Value Chain for Red Meat FarmIQ	151	325	1100
Pastoral	A New Vision for Pastoral Agriculture PGG Wrightson Seeds	15		200
	ClearView Innovations Ballance AgriNutrients	20		348
	Precision Application of Fertiliser in Hill Country Ravensdown Fertiliser Co-op Ltd	10	44	120
Beekeeping	High Performance Manuka Plantations Manuka Research Partnership (NZ) Ltd (MRPL)	2	2	925
Forestry	Innovative Steep-land Tree Harvesting Future Forests Research (FFR)	7		100
	Use of Fumigants for Log and Wood Product Exports Stakeholders in Methyl Bromide Reduction (STIMBR)	3		–
	From Stump to Pump Phase 1 (feasibility study) Norske Skog Tasman Ltd (NSTL)/Z Energy	14	23	–
Viticulture	Lifestyle Wines New Zealand Winegrowers	17	17	285
Horticulture	NZ Avocados Go Global Avocado Industry Council	8	8	110
Total			708	

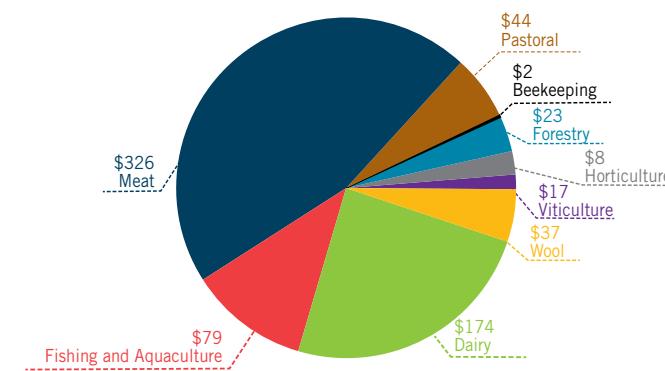
As at 31 July 2014, there were 17 programmes underway and one completed.

Crown/co-investor committed investment (in millions)



Crown/co-investor committed investment by sector (in millions)

Total \$708 million



Total government funding paid to programmes as at 31 July 2014 is \$116.1 million.