

# Primary Focus

Ministry for Primary Industries  
Manatū Ahu Matua



24 March 2014

## Kia ora



Welcome to the first issue of *Primary Focus* – a bi-monthly newsletter celebrating the work of the Ministry for Primary Industries and our partners.

Economically, New Zealand has a lot to celebrate right now, with primary sector export returns being significantly up on what they were a year ago. Underlying our exports are the incremental gains the primary sector is making towards more efficient, effective and environmentally sustainable production and harvesting. Some of the stories in this issue celebrate these steps forwards.

Alongside growth in our primary sector, we must protect what we already have – our competitive advantage and international reputation for safe and sustainable, high-quality primary products; and New Zealand's special places, plants and animals.

A Queensland fruit fly find this past summer underlined New Zealand's vulnerability to the arrival of pest organisms, and how important it is to be vigilant and have good systems and processes in place. As more people and goods come into and

leave New Zealand over coming years, our border biosecurity and our ability to effectively respond to new or spreading organisms must keep pace.

In this issue of *Primary Focus*, several stories highlight how pre-planning is important in biosecurity, and how our responses are a team game, involving all the people, enterprises, organisations and related communities who are potentially impacted. MPI is currently working closely with the horticultural sector on just this issue around fruit fly preparation and response.

This month's story on the pest seaweed *Undaria* in Fiordland gives us all heart that pests can be beaten. But the story also shows that combined efforts are needed – as pests don't respect jurisdictional boundaries.

I hope you enjoy this issue of *Primary Focus* and I look forward to your feedback and suggestions for stories in future issues. If you have any suggestions, please email these to [primaryfocus@mpi.govt.nz](mailto:primaryfocus@mpi.govt.nz).

Kind regards,

Martyn Dunne

Director-General MPI

## Partners in preparedness



In January 2014, a single male Queensland fruit fly was found in a surveillance trap in Whangarei and sparked a response that lasted two weeks and involved 120 people.

To stop new and often harmful species becoming established here we need to be vigilant and act swiftly. And it's a fact that no matter how good our border controls are, things will, from time to time, slip through.

Consequently, New Zealand has layers of defence against fruit flies that extend beyond border measures and include a [surveillance](#) programme and an experienced incursion response team.

MPI has 7572 pheromone lure traps spread around the country in places where fruit flies are most likely to turn up; and agreed systems for dealing swiftly and effectively with these pests, should they be found.

Ministry for Primary Industries Response Manager Katherine Clift says the thoroughness, speed and effectiveness of January's response clearly showed the difference this thorough preparation can make to how we deal with the situation.

"At the recent debrief meeting, many commented that the work progressed as well as it did because we'd mounted a similar response to Queensland fruit fly in Auckland just 18 months earlier," she says. "We took a great many learnings out of that first response, and made significant investments in addressing those areas. One area we've boosted has been recruiting organisations to the National Biosecurity Capability Network. By the end of the Whangarei response, there were over 15 organisations from the network providing resources within the response - including Northland Regional Council, whose contribution was a critical part of the success of the response."

"MPI is also keen to continue to enhance our relationships with the horticultural industries and work together more around responses".

The GIA (Government Industry Agreement) provides a framework to do this, with those industries that sign the GIA Deed, agreeing to partner together to improve biosecurity outcomes for New Zealand. Given the focus on fruit fly as a national priority pest, MPI is already working with potential industry partners to progress a fruit fly operational agreement under GIA.

"Setting up a Fruit Fly Council to develop the Operational Agreement is the beginning of bringing all the various views together from across the horticultural sector," says MPI's business lead, David Talbot.

"While it's still early days, there's already strong interest from up to seven different horticultural industry groups keen to be part of the Council. This includes Hort NZ which will be representing a number of horticultural industries."

To find out more about GIA in general, visit [www.gia.org.nz](http://www.gia.org.nz) or contact David Talbot to talk through progress in the fruit fly space. [david.talbot@mpi.govt.nz](mailto:david.talbot@mpi.govt.nz)

## Māori Farming Excellence



How do you create a coherent and top-performing dairy operation from a number of smaller holdings? What governance structures do you need to make it work? And how do you really make it hum – productively and sustainably?

All three finalists in this year's Ahuwhenua Trophy BNZ Māori Excellence in Farming Awards have developed the answers to these questions, and will share them with others at farm field days on their properties in March.

The trophy celebrates Māori excellence in farming and alternates each year between sheep and beef, and dairy. "The Ministry for Primary Industries recognises that Māori agribusinesses are major contributors to New Zealand's rural economy, and we are proud to be Gold Sponsors of the Ahuwhenua Trophy" says Deputy Director-General Ben Dalton.

Ahuwhenua Trophy Management Committee chairman Kingi Smiler says this year's finalists clearly demonstrated that they have reached a very high standard not only in their farming operations but also in their commitment as kaitiaki of their lands.

"All three have been innovative in putting together the organisations that run their farms – with smaller trusts and whānau cooperating to create larger and effective commercial units, which is a model for the wider growth of Māori agribusiness," he says.

"Māori are particularly significant players in the dairy industry. It's worth noting that ten percent of the milk produced in the country comes from Māori farms. Māori are now processing and delivering their products directly to customers in the global market. Right around the country I am seeing Māori take new and bold initiatives to improve their farming operations."

The Ahuwhenua Trophy competition was inaugurated eighty one years ago by the great visionary leader, Sir Apirana Ngata and the Governor General at the time, Lord Bledisloe with the aim of encouraging Māori to improve their farming operations.

More information (including field day dates and contacts) can be found on the [Ahuwhenua Trophy website](#). This year's winner of the Ahuwhenua Trophy will be announced on 13 June.

## Overseered pork



Around 40 percent of New Zealand's pork production comes from "free-farmed" or "outdoor-bred" pigs, and pretty much all these farms are on the Canterbury Plains. However, managing nutrients is a critical issue for farms on the Plains.

NZ Pork technical manager Ian Barugh says that Canterbury's moderate climate and low rainfall, its free-draining soils and the availability of straw there makes this an ideal place for farming pigs outdoors.

However, managing nutrients is a critical issue for farmers on the Canterbury Plains. Environment Canterbury has a new regional plan which specifically requires farms located on the Canterbury plains 'red zones' to determine nitrogen (N) leaching rates and a tool to do this is the 'Overseer' nutrient management model.

The 'Overseer' system was developed primarily for sheep, beef and dairy farms and needs to be adapted for outdoor pig farming. The pork industry is working with Massey University and AgResearch to do just this, with help from MPI's Sustainable Farming Fund (SFF).

This is the fifth project in the last five years where the pork industry received funds through SFF. Last year, the fund helped them clearly define what constitutes "free range" pork production and develop [best-practice guidelines](#) for this, in conjunction with farmers and scientists.

The Sustainable Farming Fund invests in farmer, grower and forester led applied research and extension projects that tackle a shared problem or develop a new opportunity, often with the support of industry organisations, agribusinesses, researchers or consultants. Find out more about the fund [here](#).



## Managing pest pathways



Environment Southland is cautiously optimistic of controlling *Undaria* in Fiordland's pristine waters, after an expensive, four-year biosecurity response. But they and response partners Department of Conservation (DOC) and Ministry for Primary Industries (MPI) wish it had not got there in the first place.

"The real thing at risk is a really important piece of New Zealand and all the hard work that's been done there. We really can't afford to have another Sunday Cove exercise," says Environment Southland biosecurity officer Derek Richards. "So we're looking to do a lot of education and we want to implement a Regional Marine Pathways Plan (RMPP) – a set of regulations / conditions for vessel owners going into Fiordland.

"Pests don't respect territorial boundaries and we don't know the condition of vessels coming into Fiordland from around New Zealand or overseas. For a Regional Marine Pathways Plan to work, every council needs to be on board. If a vessel comes down the coast from Auckland straight into Fiordland, they may not know there is an issue about moving from port to port."

Derek says one of the key things to make Environment Southland's plan work is developing this with community groups, stakeholders and vessel owners. "It looks like we might be the first council to dip our toes into the RMPP space. So I'm sure people will be watching us with this."

*Undaria* was discovered in Fiordland in early 2010, during a routine biosecurity inspection by DOC staff – a single mature plant was found on a mooring rope in Sunday Cove at Breaksea Sound.

A draft joint response agreement had already been developed when *Undaria* hit – so agencies already knew who would be taking the lead roles and who would be paying for it, says MPI Senior Adviser, Jennie Brunton.

Jennie says that in the case of an organism that's new to New Zealand being detected in Fiordland's waters, MPI will take the lead role. However, when an established organism has been detected, it has been agreed that DOC would take the lead where it was in a marine reserve, and Environment Southland would lead the investigation and response where it was outside. Costs of any response (with exceptions for 'new to New Zealand's) would be shared equally between Environment Southland, DOC and MPI, and all decisions collectively agreed on.

Derek says the programme for removing *Undaria* has been intense and has cost over \$400,000 (plus a similar amount in salaries).

Part of its success has been the use of a biological control – in this case, using kina to eat seaweeds in the affected area. In June 2011, around 35,000 kina were collected from nearby Fiordland waters and transferred to the *Undaria* response site in Sunday Cove. Over the past 18 months, these kina have eaten their way through a large part of the native seaweed in the search area, making it easier for divers to spot any remaining *Undaria*. Kina also eat *Undaria*, so it's possible they've also eaten the microscopic stages of the seaweed.

Derek says the last mature plant was found in early 2012. "If we don't find any mature *Undaria* by early 2015, we can wind up this response. Touch wood – this may be the first time *Undaria* has been eliminated from a natural substrate anywhere in the world!"

The incident really does highlight the expense of 'putting the horse back in the barn after the door's been opened'. Keeping that door closed in the first place has got to be the cheaper, better option – and that is the role of the Regional Marine Pathways Plans comes in.

Jennie says several other regional councils are looking at a regional marine pathways plan approach, and MPI is currently working on a national marine pathways strategy.

## Stumping safer on steeplands



World demand for New Zealand logs and timber continues to increase annually –combined log and timber exports currently make up around 10 percent of New Zealand's total primary sector exports. With growing demand comes growing production from the forests. On the ground it means forestry technology needs to keep pace to ensure there is stability in supply, while keeping those involved in the forestry industry out of harm's way.

An estimated 40 percent of forestry related accidents occur when forestry crew members are either tree felling or attaching and detaching the heavy chains or cables used to haul trees from the forest. Steep slopes, heavy undergrowth and poor weather can also increase the risk of injury.

In 2010, Future Forests Research Limited (FFR), a partnership of forest industry companies, teamed up with the Ministry for Primary Industries (MPI) under the Primary Growth Partnership to co-invest in innovative harvesting technologies that will improve productivity and worker safety in steepland harvesting in New Zealand.

The 6-year partnership between FFR and MPI, known as the Steepland Harvesting Programme, aims to reduce harvesting costs on steep country by 25 percent, grow harvest machinery manufacturing in New Zealand to future proof the sector, and make harvesting jobs safer.

### Harvesting technology in motion

Currently, harvesting using wheeled or tracked machines is not usually permitted on slopes greater than 22 degrees for safety reasons—this limits the efficiency and safety of logging operations on steep hill country.

The Steepland Harvesting PGP Programme has supported the development of a steep slope harvester machine called ClimbMAX, built by Trinder Engineers in Nelson for Kelly Logging Ltd, and now commercially available from ClimbMAX Equipment Ltd.

The ClimbMAX harvester is an excavator-based system that can fell and bunch trees on slopes of up to 45 degrees. It has the potential to significantly improve harvesting productivity, resulting in less cost, and to reduce the number of workplace safety incidents, by removing the need for a chainsaw operator.

It's the first true steep slope harvester, independently certified by a Chartered Professional Engineer, to meet New Zealand's approved code of practice for forestry.

ClimbMAX uses a computer controlled hydraulic winch system that helps with traction and mobility and allows the machine to operate safely on steep slopes. The harvester not only fells trees but also bunches them together to improve the payload for extraction by cable haulers.

As part of the programme, FFR, along with Scion and commercial partner Alpine Shovel Yarders Limited, have also built a hydraulic-controlled hauler grapple –called the Alpine Grapple – which is designed to increase grapple use on steepland and therefore remove people from hazardous areas. It's lighter and cheaper to run and can be controlled remotely by the hauler operator. The new hauler grapple can rotate to pick up felled trees more effectively and pull trees out of gullies that are too dangerous for people to access.

## Eyes on the job

In addition to the ClimbMAX harvester and the Alpine Grapple, the PGP programme has developed other technologies such as a new camera system called CutoverCam. It uses wireless camera technology to provide clear views of forestry operations on steep slopes.

The CutoverCam transmits high resolution video footage of ground operations to the hauler operator. The hauler operator can operate the camera remotely and zoom in to gain a clearer view of what's happening on the ground from a screen mounted in the cab of the hauler. This means ground crews are in full view of the hauler operator who no longer needs to rely on radio messages and sound signals from ground crews.

Together the ClimbMAX, the new Alpine Grapple and CutoverCam, enabled through the PGP, will ensure New Zealand's plantation forest industry can harvest more efficiently to meet domestic and international demand, while ensuring those who work in the forestry industry are safer than ever before.

The creation of the PGP partnership has resulted in a renewed interest in harvesting innovation to improve productivity and safety across harvesting operations, which can only be positive for the forest industry.

This PGP partnership will also further enhance New Zealand's competitive advantage in the international forestry markets and help future proof the industry.

## Steepland Harvesting—highlights to date

- ClimbMAX harvesters are now operating in Nelson, Hawke's Bay and British Columbia in areas considered hazardous for conventional tree felling and extraction practices. A fourth machine is currently under construction.
- In initial trials, the ClimbMAX harvester showed an increase in the volume of logs cut and bunched ready for extraction of 65 tonnes per unit per day (a 26 percent increase in productivity) and a net cost saving of approximately \$3.50 per tonne (a 10 percent saving) over conventional harvesting methods. A direct cost saving to the industry of \$8 million per annum is estimated within five years.
- The first remote controlled grapple-mounted camera unit – Cutover Cam – was developed in 2012, with commercial release in September 2013.
- The first unit of the commercial model of the Alpine Grapple carriage has been implemented by a harvesting company.



## Canada response issue



Recently the Ministry for Primary Industries was invited to observe a Provincial Government Biosecurity Emergency simulation exercise in Alberta, Canada from 10-12 February. Exercise “White Spruce” saw the Alberta Agriculture and Rural Development (AARD) Response teams test their “Incident Command System” (ICS) for managing an emergency animal disease response. ICS is similar to New Zealand’s “Coordinated Incident Management System” that MPI uses.

MPI’s Exercise Programme Manager, David Boag, met staff from the AARD and several of the National-level “Canadian Food Inspection Agency” staff who were assisting on the exercise.

“The Canadians face similar threats to Biosecurity as us, and need the same sorts of response capabilities”, David said. “It was very interesting to compare and contrast the approaches for controlling and co-ordinating this type of emergency. It was good to learn that while Canada naturally has more resources than we do and is further advanced, New Zealand is addressing these issues by going down similar paths. We have a lot in common and there is a lot that we can learn from them.”

“The opportunity to meet some Canadian emergency management staff was extremely useful, not only for my role, but also for getting information that will help our Preparedness Portfolio teams who are developing and refining Response models, plans and processes to ensure we are well prepared”.



## Farming fund yields a fine crop

An independent evaluation by Kinnect Group into the Sustainable Farming Fund, confirms the fund is delivering value for money and makes a worthwhile and valuable contribution to primary industries and rural communities. It also makes recommendations for improvement, which the Ministry is working to implement. [Click here for link to report.](#)

The SFF invests farmer, grower (including aquaculture) and forester led projects that deliver economic, environmental and social benefits to New Zealand's primary industries.

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## Primary Industries Situation and Outlook: Update January 2014

New Zealand primary sector exports for the year to 30 June 2014 are forecast to be \$4.9 billion more than previously forecast, according to the report 'Situation and outlook for primary industries: update January 2014'.

The biggest forecast gains were for dairy, meat and forestry sector exports. The report points to two key drivers for this:

- growing demand from emerging markets (particularly China); and
- rising prices, due to supply constraints among other major exporters to these markets.

[Click here for full details of the report.](#)

### Hook a new marine App for your mobile

*NZ Fishing Rules* – developed by MPI – gives you fish species information on-the-go:

- identify recreational fish species;
- minimum legal size and area bag limits;
- how to release undersize fish, and measure and sex crayfish.

Download from the [Apple AppStore](#) or [Android Market](#).

*MarineMate* – developed by Maritime NZ, ACC and regional councils - puts local information such as speed limits, mooring zones, towing access, lanes, boat ramp locations, local area notices and tides right at your finger tips.

Download from the [Apple Appstore](#) or [AndroidMarket](#).

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## Surveillance magazine Volume 40, no 4, December 2013

*Surveillance* is the Ministry for Primary Industries authoritative source of information on the ongoing biosecurity surveillance activity and the health status of New Zealand's animal and plant populations in both terrestrial and aquatic environments. It reports information of interest both locally and internationally. This issue's editorial talks about people and systems in biosecurity response.

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## Agri-Gate News from the Primary Growth Partnership – issue 3 February 2014

The Primary Growth Partnership newsletter informs stakeholders and interested parties about PGP activities while also profiling one of the current PGP programmes in each issue. This issue covers new steepland harvesting technology.

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