

# Bulletin

Summer 2017

## Shane Jones Backing one Billion Trees

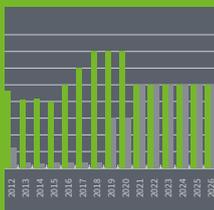
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What a billion trees looks like



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Myrtle rust and eucalypts



# A New World

One Bulletin on and a new world order for the forest sector. Not just a new government, but a coalition of parties each with their own priorities and portfolio responsibilities.

The big changes are the reinstatement of a ministerial position for forestry inside Cabinet and forest expansion as a key coalition priority. The level of engagement with government has increased by an order of magnitude as a consequence.

Trees are a vehicle for our billion-dollar man to achieve climate change and regional development objectives. The same trees can also give our industry scale and a smoother wood supply. The industry thus has the opportunity and the responsibility to help reach the billion target.

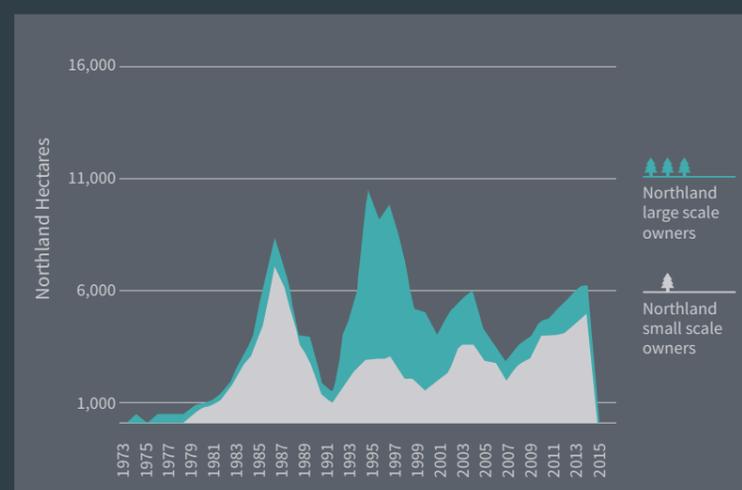
It's not all about commercial forestry or exotic species, of course. There is going to be an important role for native planting. But the lion's share of a billion trees, or 100,000 ha planting per year, will have to be commercial species because that is what is going to absorb carbon at the fastest rate, deliver the jobs and provide financial returns to landowners. What's more, half of the 100,000 ha is expected to come from replanting trees currently in the ground. Some suggest including replanting is somehow double-counting. In fact, it is entirely appropriate. In the last 12 years over 100,000 ha has been lost from the plantation estate in New Zealand, significantly worsening our climate change problem. The billion trees goal takes responsibility for preventing further forest loss and so it should include replanting as well as new planting. Certainly, the atmosphere draws no distinction.

Nonetheless, the government's efforts will be focussed on working with those who have land suitable for new trees – Māori, farmers and government itself.

There are no end of challenges, but our job has to be to help the government find solutions not roadblocks. Re-establishing the Forest Service, within MPI as Forestry

Northland Hectares

Northland large and small growers' harvest 1973 to 2015



New Zealand with an expanded presence in Rotorua is in line with the Labour and NZ First agreement to “relocate government functions in to the regions”. Forestry New Zealand “will be responsible for implementing a National Forest Strategy, growing its own commercial forests ... and helping other landowners who want to convert to forestry”. That is going to take time, but meanwhile government has expertise in-house in the form of the Crown Forestry unit to start the job.

To get to the billion tree target the Crown needs to broker planting deals between those who have land and those who have capital and expertise.

Preserving confidence in forest investment means the government will need to tread carefully in dealing with two other issues on their radar – foreign investment and

log exports. NZ First and Labour wish to “strengthen” the Overseas Investment Act and there have been a number of public comments made about log exports – some factual, some anything but.

The Minister's home patch of Northland is the focus of all of the above. A region that could demonstrate what forestry can do socially, environmentally and economically.

I spent time there recently at the invitation of processors along with local forest growing interests. It was a successful engagement which reinforced the inter-dependency of growing and processing. Like the rest of New Zealand, the region is having to contend with the legacy of a significant fall in planting rates in the early 1990s, but in Northland it is more acute.

IN A FEW YEARS THE HARVEST WILL DROP SIGNIFICANTLY BECAUSE THE TREES SIMPLY DON'T EXIST. THERE IS A GREAT OPPORTUNITY NOW THROUGH NEW PLANTING TO AVOID A REPEAT OF THIS IN THE FUTURE, BUT THERE IS NOTHING THAT CAN BE DONE ABOUT THE EXISTING HOLE. WE CAN TRY AND ENSURE IT ISN'T ANY WORSE THAN IT HAS TO BE THOUGH.

Between growers and processors there was agreement that overseas ownership and log exports per se are not the issue. Generally, the large corporate forest owners have been making supply available and most of the logs going across the wharf are not wanted by the local industry. In fact, we are all fortunate that we do have an outlet for these logs – some 10 – 15 years ago everyone was chewing their fingernails wondering what we were going to do about the “wall of wood” we couldn't handle on-shore.

Nevertheless, there are some logs being exported that could be used domestically, but have not been made available and there are other logs that would be suitable if the owners had waited a few more years before harvesting.

An individual should be free to choose when, and at what price, they sell their trees, but it is in the industry, and the owner's interests that this is based on good advice. In some cases, it hasn't been.

So what options can be pursued?

Regular engagement at a local level backed by better data will help. Woodlot owners,

in particular, being encouraged to get, and being provided with, independent advice i.e. by someone who does not have a financial interest in whether the forest is harvested, would also help, and there could be a facilitation role here for the new Forestry New Zealand.

Another option that should be encouraged is the amalgamation, or common management, of smaller woodlots that are still several years away from the optimal harvest age for local mills. This could be by larger forest owners or even mills themselves and there may be a role for a Crown forestry agency to help broker such smoothing of supply.

There is industry support for the ministerial directive just issued to the Overseas Investment Office to take in to consideration the commitment to making logs available to domestic processing when assessing applications.

That said, there is collective recognition that foreign direct investment is not in itself an evil and Federated Farmers' response to the directive was agreement that New Zealand needs such capital. Any suggestion of extending the OIO involvement beyond land to forestry cutting rights, for example, would certainly work against investment and our carbon goals.

Beyond these near-term actions there are other ways of encouraging forest and on-shore processing. One of these is to introduce a wood encouragement policy that would apply to government building decisions. Around the world there are numerous examples of countries putting in place ‘Wood First’ policies that either require or encourage the use of wood in public construction. Picking winners? Absolutely, and entirely justified, given the environmental benefits of a renewable resource. This would be public policy in keeping with the government coalition partners' previous position.

The advent of new wood technology, such as cross-laminated lumber means that we have the opportunity to go places in wood that were previously only possible with steel and concrete, although these will continue to have their place. It also means we have an opportunity to start using more of those logs on the wharf that until now we have not had a domestic use for.

On the same timeline there are amendments to the Emissions Trading Scheme that can reduce risk and thereby encourage greater planting. And, of course, we need to keep combatting anti-competitive trade activity. New Zealand is up against countries that provide substantial assistance and protection to their primary industries and this constrains the ability of processors here to extend their sales offshore.

No shortage then of crusades to pursue and the new government has signalled it is happy to partner actively with industry to get what we all want from forestry.



DAVID RHODES  
CHIEF EXECUTIVE, FOA



# One billion trees in ten years is ambitious but possible

The details have yet to be fleshed out, but the new government’s target of seeing a billion trees planted during the next ten years is clearly ambitious.

This is particularly so when the government has stated it will not be buying land to plant the trees on.

A billion trees represents planting 100,000 hectares of trees each year for a decade.

This is calculated on 100 million trees planted every year at a rate of 1,000 seedlings per hectare.

The actual planting rate of *Pinus radiata* on an intended structural non-prune regime is slightly above this, and for a pruned regime slightly below. So the trend towards structural production makes the target easier to achieve.

For the much less utilised Douglas-fir, the planting rate is higher, at about 1,600 per hectare. However the percentage of Douglas-fir plantings continues to decline.

But if we stay with the broad 1,000 trees per hectare equation, it is assumed that replanting, and new planting, will each contribute 50,000 hectares per year on average to reach the ten year target.

Double this new planting rate was achieved in the past.

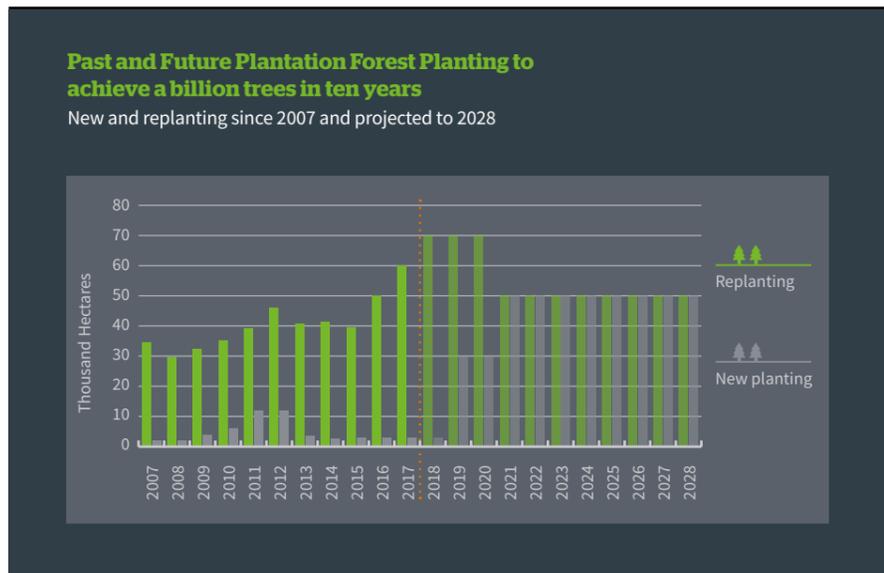
Since 1994 there have been two distinct phases of new plantation forest planting.

The first phase rapidly peaked in 1994 at 98,000 hectares, from a mere 15,000 hectares of new planting only three years before. Fifty thousand or more hectares of new planting were achieved for seven straight years.

Then, a quite different pattern emerged. The new area each year slowly declined each year after 1994. Since 2004 the new planting area became negligible. The total forest estate has actually shrunk.

For next winter’s planting, the number of seedlings has already been bedded into the nurseries. Somewhere around 70 million seedlings are in production for 2018 and that can’t be increased at this time of the year.

Seedling production has increased by about 10 million seedlings per year over the past two years. This volume increase however doesn’t



There are a number of assumptions behind the calculations in this graph. It is based on the assumption of a substantial replanting ‘catch-up’ during the years 2018 to 2020. A stable harvest and replant for the following years to 2028 is assumed, though factors such as prices, incentives, restrictions and ETS values could lead to a much more volatile harvest and replant regime.

The ten year start date for the billion trees is 2019, since any government actions will not be able to provide for extra seedlings ready to plant before 2019.

necessarily represent new plantings, but reflects bigger harvest volumes and therefore an increasing area which needs to be replanted to maintain the overall size of the plantation forest estate.

A capable planter can plant 800 seedlings in a day, (it varies a lot – on sand country a rate of 3,000 per day is achievable). A labour force of a thousand planters will therefore plant 800,000 seedlings a day. If they work for 120 days over the winter months they will have planted 100 million seedlings in a year. Maintain that over ten years and the billion tree target is achieved.

An important qualification to the government target is the inclusion of erosion protection planting and desire to include native trees in the scheme as well. The National Environmental Standard for Plantation Forestry identified large areas of land as effectively out of bounds for production forestry. Likewise, the RMA provides for District Plan restrictions on forestry to protect areas

**800 – 3,000 SEEDLINGS CAN BE PLANTED IN A DAY**

of ‘significant’ kanuka and manuka regrowth. The extent of planting on this land is yet to be disclosed.

It is also unknown so far what funds and under what terms the government will incentivise planting. Flat land can be planted for about \$1,000 hectare, but if extra spraying or crushing to prepare land for planting is necessary, the establishment costs would be nearly double this.



# Scion scientists recognised in CRI Awards

Scion’s biosecurity team and forest pathologist Nari Williams were recognised for their achievements in the first-ever Science New Zealand Awards recently presented in Wellington to Crown Research Institutes.

The biosecurity team won a team award for two decades of work protecting the forest industry and providing for literally billions of dollars’ worth of earnings or savings for the industry.

“I was extremely honoured to accept the award on the biosecurity team’s behalf. I’m delighted that the many achievements of past and current staff were recognised at the national level.”

– Team leader Lindsay Bulman



Receiving the team award at the Science New Zealand Awards in Wellington, Lindsay Bulman (right) with, from left, Dr Richard Gordon, CEO Manaaki Whenua Landcare Research and Dr Megan Woods, Minister of Research, Science and Innovation.

The Award citation read;

“Their research has resulted in successful management of several new to science diseases and development of a forestry biosecurity surveillance system considered by overseas experts to be the best in the world.

In 2003, the team’s science led to the discovery of the pitch canker pathogen in plants held under quarantine. Destruction of this material avoided establishment of a disease that was predicted to cause over \$400 million damage to the forest industry.

Over that same period the team’s entomologists and pest management specialists supported the successful eradication campaigns of three moth species that could damage forestry, horticulture and our native forests.

More recently, the team’s work on determining the biosecurity risk of *Phytophthora spp.* on forest produce exports showed that there was no risk to trading partners. This finding eliminated the potential loss of over \$2 billion per year through trade bans or restrictions.

The team continues its research on reducing establishment of new pests, controlling existing ones and protecting trade for the benefit of New Zealand.”

Dr Nari Williams won an ‘early career scientist’ award for her work on *Phytophthora*, a tongue twister for the MC.

“This award came as quite a surprise. I have been very fortunate to build a career contributing to the growth of forests that are as healthy and productive as possible. I am very grateful that my role at Scion has enabled me to continue doing the work I love within a great community of colleagues and collaborators both nationally and internationally,”

– Dr Nari Williams



Nari Williams explaining *Phytophthora* at the recent Forest Growers Research Conference in Christchurch

Nari Williams started her career at Scion in 2012, after six years’ experience in disease management at Murdoch University. She specialises in pathology, in particular the management and biology of *Phytophthora* diseases.

Her Award citation stated;

“As an early career researcher, Nari initiated and led a Ministry of Business, Innovation and Employment bid that resulted in the Healthy Trees, Healthy Future programme.

This vision resulted in multi-sector, highly collaborative science that brings together researchers from New Zealand’s primary sector CRIs, universities and overseas organisations to protect our forests and horticultural crops from present and future *Phytophthora* diseases.

As technical lead, Nari successfully harnessed the talents of pathologists, geneticists, biochemists, molecular biologists and mathematicians among others to achieve this common goal.

Nari’s achievements were recognised in 2014 by winning the Forest Owners Association ‘Science of International Quality’ and ‘Contribution to a Science Team’ awards, and the Scion ‘Customer Engagement’ award.

More recently, Nari has been invited on to the Technical Advisory Group of Te Toa Whenua, a restoration initiative with a vision of restoring the Waipoua Valley, near Dargaville in Northland, an area degraded with invasive weeds and kauri dieback.”

In the same category as the biosecurity team was an award to a team of GNS, NIWA and other scientists, who through 12 years of hard work, including a presentation to the UN, enabled New Zealand to claim an economic zone 14 times larger than the state of California, and equal to 1 per cent of the earth’s total land area.

# Eyes from above reveal forest secrets

Forestry seems to have been invented for eye in the sky technology. An elevated look down with a sophisticated piece of remote sensing technology is worth thousands of observations through the trees from below.

Satellites, aircraft and drones (UAVs) are leading to step-changes in how New Zealand forests are managed, with big advances coming all the time.

At the recent Forest Growers Research Conference in Christchurch, Scion's Geomatics scientists described some of their outputs across a range of research programmes.

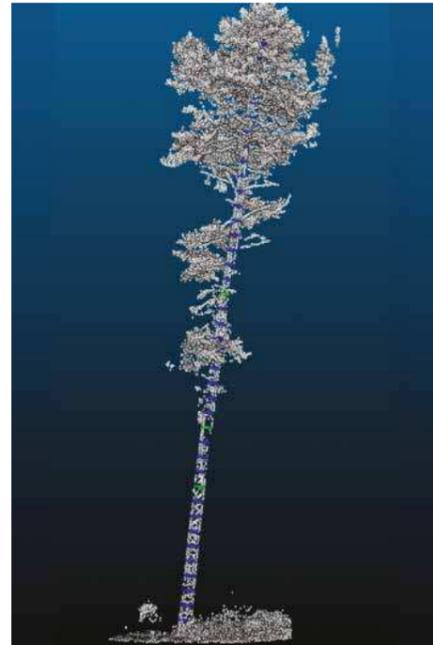
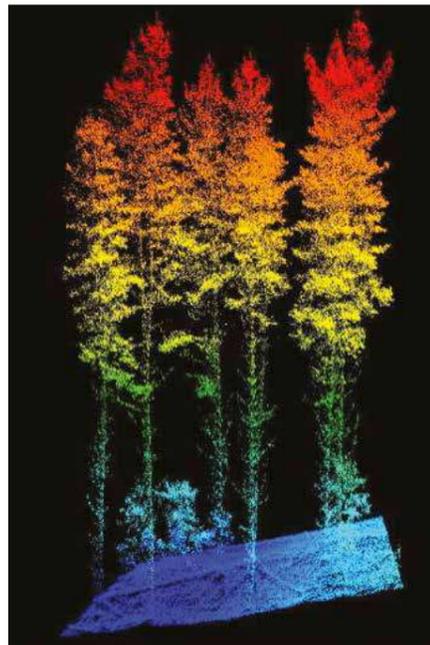
The presentations provided convincing evidence for returns on investment of Harvested Wood Products Levy income which substantially contributes to this work. The Geomatics Team, led by Dr Michael Watt, are an integral part of many forest management and forest health research programmes.

One target is red needle cast (RNC). It is the forest industry's current major health concern, and research aims to detect and monitor RNC using imagery from the European Space Agency's Sentinel 2 satellite. Satellite imagery can cover very large areas with a single pass, and is potentially a powerful tool for early disease detection. Sentinel 2 has a 5-day return period, captures data at 10-metre resolution, and the data is free and relatively easy to access.

The initial challenge is to identify RNC-infected foliage from changes in foliage colour as the disease progresses. The persistent cloud cover over New Zealand this past winter and spring has proved frustrating for the research team – an unavoidable pitfall of working with satellite imagery.

The scientists' aim is to establish an automated satellite-monitoring capability, first for RNC and then for other diseases. Semi-automated continuous RNC monitoring will be trialled next season as a step towards this.

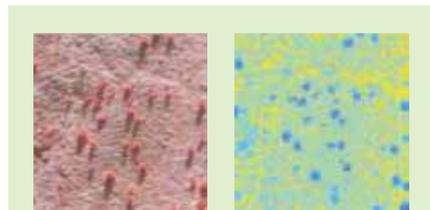
LiDAR data is now commonly used by larger forest owners for a range of applications; stand-level inventory parameters such as basal area, stocking, and volume captured by LiDAR have proved to be as accurate, and more cost effective, than conventional



(left) Plot data showing LiDAR collected from a UAV; (right) LiDAR point cloud data for an individual tree where Cloud2stem software has been used to estimate the stem diameter (blue bands)

inventory. As an attractive alternative for managers, inventory metrics predicted from satellite imagery are now proving to potentially be as accurate as LiDAR data but much cheaper.

At the cutting edge of LiDAR research, scientists are using LiDAR data collected from UAVs to capture very accurate plot data and even individual stem dimensions. The days of full-scale ground-based inventory are definitely numbered.



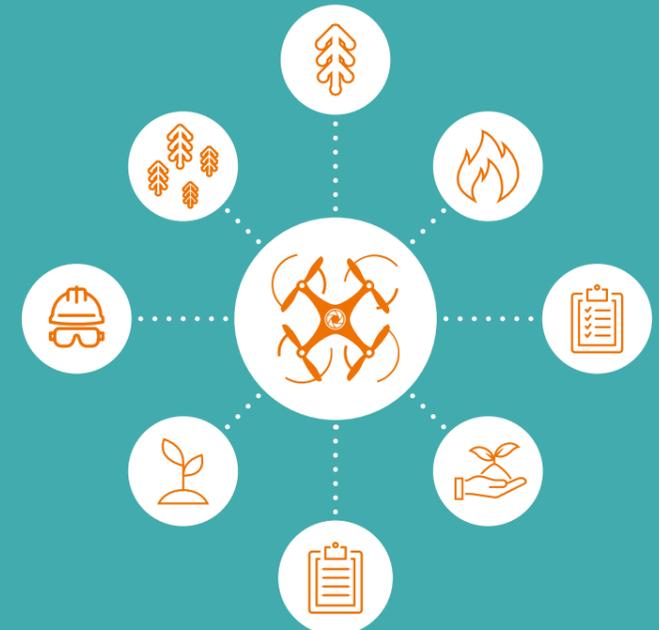
(left) Combining multispectral aerial imagery; (right) LiDAR data to successfully identify wildings in tussock

The war against wildings is another battle using multiple aerial technologies. The area infested by wildings is advancing at around six percent annually, often in remote, hard-to-monitor locations. In one example, scientists have combined LiDAR data with aerial imagery to accurately identify wildings and distinguish them from tussock and other scrub species. This paves the way for much better early detection and hence early, cost-effective control measures.

There is a lot of excitement about the emerging but rapidly developing UAV technology, and a recent review of UAV applications by Scion concluded there are definite niches for this technology in forest management – measuring, counting and continuous monitoring all being identified as tasks that UAVs can do well. A presentation by Interpine at the FGR conference showed the reality of UAVs already in use, including helping fight the Port Hills fires by identifying hotspots.

## UAVs IN FOREST MANAGEMENT POTENTIAL OPTIONS

- MONITORING WILDING CONIFERS
- FIRE MONITORING (HOTSPOTS)
- SURVIVAL ASSESSMENT
- HEALTH MONITORING
- FOREST INVENTORY
- EVENT MONITORING (WIND/HARVESTING)
- HEALTH AND SAFETY
- PRE/POST THINNING



6%

ANNUAL ADVANCEMENT IN THE AREA INFESTED BY WILDINGS

Detecting and controlling new, unwanted pests in urban areas is another area where UAVs could speed up responses but with low social and environmental impacts. UAVs mounted with pheromone sensors capable of detecting a specific insect by its odour are being developed by a joint Scion/French team, and UAV-mounted sprayers which can target individual trees or small areas are already operational.

For large-scale forest owners and managers, already upskilling staff and investing in GIS technology, questions are likely to be around 'how far and how fast do we go' in the capture and application of remote sensing information. For small-scale owners, opportunities to take direct advantage of remote sensing remain harder to identify or contract.

All forest owners, large and small, will increasingly benefit from any national disease monitoring and fire-fighting capabilities as well as a number of other advances with public good spin-offs.

Full conference presentations available at: [www.fgr.nz](http://www.fgr.nz)

Harriet Palmer

# Government Industry Agreement after myrtle rust

FOA entered into a Government Industry Agreement with MPI on biosecurity management and cost recovery for the forest industry back in 2015, but legal and organisational issues remain.



GIA signatories and MPI are grappling with how best to cost-share with non-signatories to the GIA. A number of proposed solutions have been developed by MPI, none of which are simple or easy to administer and no clear solution has been finalised.

To incentivise GIA participation, early signatories were enticed by offers of reductions in cost-share percentages. These inducements are to expire soon with New Zealand's major animal industries still outside GIA.

Legal liability, when there is a challenge to decision-making in an incursion, is still unclear.

FOA is negotiating an operational agreement with MPI for readiness. This includes cost-shares, work programme, and a fiscal cap on spending on an incursion in any one year.

FOA has been working to bring forest nurseries into the GIA partnership. Forest nurseries would be party to decision-making on any incursions that affect the forest growing sector more broadly. They would pay the same share as forest growers of the cost of any incursions. This will be in the form of a proposed biosecurity levy.

The Forest Nursery Growers Association comprises 23 nurseries, some of which are already in the GIA partnership as they are owned by FOA members. A number of these nurseries only supply commercial forest

species, but others are mixed. A national nursery biosecurity certification standard is in the very early stages of being developed to reduce biosecurity risk from nurseries and reduce the potential spread of pathogens.

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NURSERIES MAKE UP THE FOREST NURSERY GROWERS ASSOCIATION

# Myrtle rust 'unlikely' to damage New Zealand eucalypts

The Ministry for Primary Industries considers it unlikely that myrtle rust will be economically damaging to the Eucalyptus industry in New Zealand.

However, MPI believes eucalypts could serve as a reservoir for myrtle rust spores, which could spread the fungal disease to other, more susceptible, hosts in New Zealand.

In October, feijoas were officially listed as 'not affected'. On the other hand, the rust has savaged the Kermadec pohutukawa forest on Raoul Island.

It has now been established by molecular identification that the New Zealand strain is the same as the one which first appeared in Australia in 2010. So, it is likely that the pathogenicity of this strain in New Zealand would have similar low impacts on eucalypts as in Australia.

Evidence from the current response, since the rust was first detected this past May at Kerikeri, shows that there is a very low incidence of infected Eucalyptus species in New Zealand.

There has only been one detection of myrtle rust infecting young Eucalyptus seedlings (most likely *Eucalyptus globoides*) in a nursery.



3,077

INDIVIDUAL EUCALYPTUS TREES HAVE BEEN INSPECTED BY MPI TO DATE

In Australian Eucalyptus plantation inspections there has been a one percent incidence of infected trees, with infected plants between six months and two years old. These include *Eucalyptus agglomerata*, *E. cloeziana*, *E. grandis*, and *E. pilularis*. Of these, *E. pilularis* is grown on some farm woodlots in New Zealand. In American though, other myrtle rust strains have severely attacked Eucalyptus plantations. These strains have not yet appeared beyond South America.

MPI recommends the New Zealand industry maintains awareness of the disease and monitors for infection, particularly in nurseries and seedling and sapling stands, where early infection can cause growth malformation.

There are 23,000 hectares of plantation eucalypts in New Zealand. About 6,000 hectares are in the South Waikato and Taupo regions, with another 11,000 hectares of eucalypts concentrated in Southland and Clutha where the cooler climate makes an infection of myrtle rust even more unlikely.

MPI states it has learned lessons from the Australian experience and is reluctant to move to long-term management too quickly. A programme to contain and control, with wider surveillance to preserve response options, is likely to continue until the infection rates are determined during spring and summer.

## NZ EUCALYPTS PLANTATION 23,000 HECTARES



- 6,000 hectares South Waikato and Taupo
- 11,000 hectares Southland and Clutha
- 900 hectares Hawkes Bay
- 5,000 hectares Other regions

# Toi Ohomai gets real

Toi Ohomai Institute of Technology has bought a CAT excavator, 324DL grapple loader, so its students can get real harvest machine experience as well as learn on the Toi Ohomai simulators at its Rotorua campus.



Toi Ohomai has used the CAT simulators to train students in its *New Zealand Certificate in Forest Harvesting – Basic Machine Operations* qualification.

The actual machine comes from industry and is in very good condition, meeting all of industry's requirements. It is based at Toi Ohomai's campus at Waipa. The machine is used to safely practise real skills a new worker would be expected to have when starting in a harvesting crew.

The programme has used CAT simulators, as well as ones from John Deere and Waratah, to simulate day-to-day tasks expected of a machine operator, starting from the pre-start check through to loading log trucks. The benefits of a real machine is to follow through with the lessons taught on simulators.

This is vital because although the simulator can teach essential skills in a safe environment, and technical knowledge, it cannot simulate the feel of a real machine or its movement across terrain. The machine is also a useful resource in the early stages when tutors

teach theory. These lessons can immediately be followed up with a visit to the machine where students can see, hear and touch that which they learned on paper.

Starting on the simulators, students become familiarised with all aspects an operator should know, including identifying parts, performing daily checks, and becoming accustomed to the controls and other operator tasks. These exercises are all recorded and assessed on completion of each exercise through the computer programme. This helps to speed up the time from the start of the course to accessing the live machine itself.



Mark Hand (left) with Nathan Taylor

Once in the machine, students are familiar enough with the controls that they can operate the machine alone while a tutor communicates with them via RT. This includes machine start up, tracking, and sorting to eventually loading and unloading a trailer. The real machine also accustoms the operator to all the other variables they can expect to experience: operator movement when operating, weight when moving logs and restricted visibility.

"We are very happy with what Mark gained out of this course. He has recently been shifting the tail hold digger on a flat road that was very visible. After an induction and run through on what his actual knowledge with operating a digger in this scenario was, we were very comfortable to leave him to do this task, where before with previous employees, you had to be more 'hands on' for the first few days or weeks."

– Nathan Taylor, MCH Nelson

# Tasman Pine protecting kea nest

The Department of Conservation is praising a Nelson forestry company for temporarily halting operations around a kea nest to protect the kea.



The two kea chicks exploring outside their culvert nest. Photo: Corey Mosen



The disused culvert that is home to a kea nest. Photo: Corey Mosen

The Department of Conservation is praising Tasman Pine for temporarily halting operations around a kea nest in the Motueka Valley until the two chicks leave their nest in a disused culvert.

DOC Operations Manager Chris Golding said moving vehicles and machinery around the nest might disturb the parent kea and that might be detrimental to the kea family's welfare.

Tasman Pine Forests Ltd Health, Safety, Environment & Risk Coordinator Rebecca Sharp said Tasman Pine takes its environmental stewardship responsibilities seriously.

"The chicks were reported to us and the Kea Conservation Trust by a harvesting contractor. We're really pleased that these chicks were found in our estate, and that we can contribute

to the conservation of this unique, nationally threatened species."

"This has been a great working example of the successful implementation of the Kea Guidelines for Plantation Forestry, developed by the Kea Conservation Trust and the New Zealand Forest Owners Association."

Kea Conservation Trust Conflict Co-ordinator Andrea Goodman said the guidelines include ways for forestry companies to discourage kea from hanging around harvest sites and for protecting equipment if they are around.

"Don't feed kea or leave food scraps lying around. Other steps include ignoring kea, covering equipment, and using cinnamon or garlic paste on equipment as a repellent."



## Facts and Figures 2016/17 online

The latest edition of Facts and Figures for Plantation Forestry is now on the Forest Owners Association website. A printed edition will not be available. The 2017/18 edition is planned for the first quarter of 2018 and this edition will be printed.



## FOA office hours

The FOA Wellington Office at 93 The Terrace will be closed from 2pm Friday 22 December and will reopen Monday 8 January.

# BOARD MEMBERS RE-ELECTED AND LEVY REMAINS AT 27 CENTS

Robert Green and Bill McCullum have been re-elected unopposed in the latest election round of the Forest Growers Levy Trust Board. They will continue to represent owners of forests larger than 1,000 hectares for the next two years.

Two candidates were nominated for a representative of forests smaller than 1,000 hectares and Ian Jackson was the winning candidate and so also continues on the Board.

The seven-member Forest Growers Levy Trust was set up in 2014 to oversee the investment into forestry development from the approximately \$8m yearly income from the Harvested Wood Levy.

The FGLT board has set the levy rate for calendar year 2018 at 27 cents per tonne of harvested wood material (ex GST).

The FGLT has retained the levy rate at 27 cents since the implementation of the levy order in 2013, though the order provides for a rate up to 30 cents per tonne.

Most of the levy investment is into forest and wood research and development, such as tree breeding and erosion control, but substantial amounts also go into health and safety, biosecurity surveillance and environmental work.

The Commodity Levies Act order for Harvested Wood Products runs for six years and is due to be voted on for renewal in early 2019.



# GROWING

# CAREERS



**The new government plans to see a billion trees planted in the next ten years – double our present forest planting rate.**

There are dedicated facilities to supply this workforce:

- The University of Canterbury’s School of Forestry – Degree through to PhD in forestry and forest engineering.
- Toi Ohomai in Rotorua – NZ Certificates in forest management and operations, as well as a Diploma in forest management.
- NorthTec in Whangarei – NZ Certificates in forest skills and harvesting.
- EIT in Gisborne – NZ Certificates in forest harvesting and operations.



Four of the entryways for the whole lot of people we urgently need to fill the ranks of foresters, engineers, scientists, drivers, processors and managers who keep our six-billion-dollar export industry growing.

[www.nzwood.co.nz](http://www.nzwood.co.nz)



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