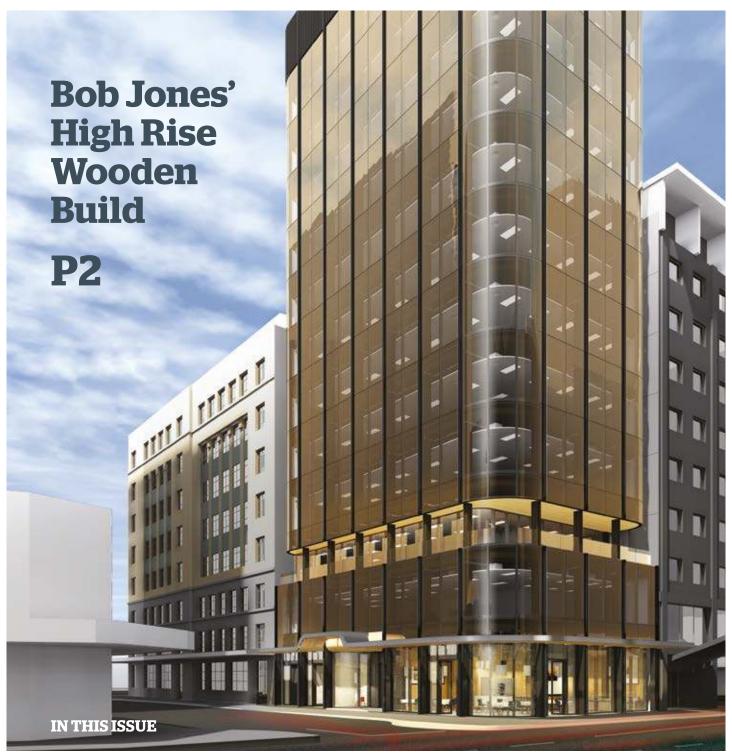


Bulletin

Winter 2017







MBr on borrowed time



P10
It's ok to spray in B.C





Bob Jones goes wooden with world's tallest timber office tower

Thanks to Sir Bob Jones, New Zealand's capital has finally caught up with an international wood-use revolution.

Robt. Jones Holdings is to construct in downtown Wellington the highest wooden office block in the world.

WoodCo, through FOA and the Wood Processors and Manufacturers Association, has recently been pushing the merits of using the latest timber technology.

Modern timber products can compete in performance with steel and concrete, at heights well above two storeys, making wood competitive in high rise business and residential construction.

Stitching wood together in different ways puts the fibre in a different league to the past. Cross laminated timber, for instance, holds together incredibly strongly across different stress plains.



Computer model design of Laminated Veneer Lumber framing - Cathedral Grammar School, Christchurch.

With wood's structural abilities revolutionised, it has seriously entered the high-rise construction business.

Nelson based CLT manufacturer XLam's CEO Gary Caulfield says there are profound advantages in wood construction.

"The proposed building will showcase not only the versatility of timber. It also provides an opportunity to demonstrate the considerable benefits often realised from using massive timber as an alternative construction technology."

"These benefits typically include; greater speed in construction, superior accuracy in assembly — due to improved manufacturing tolerances — and considerable on-site efficiencies."

Former Professor at Canterbury University Andy Buchanan is also a timber big construction enthusiast, "Timber buildings have excellent performance in earthquakes because they are strong, ductile, lightweight, and easily repairable."

But FOA CEO David Rhodes says we still have work to do. "Sir Bob told me he's not a developer but just wanted to show what could be done.



An 18 storey CLT apartment complex in Bordeaux France.

However he was also reasonably unflatering about architects who weren't aware of this modern technology".

Wood is 100% renewable, fire resistant and, as the recent extensions at Wellington Airport show, can be extremely attractive.

Wooden construction also locks up carbon from the atmosphere, usually for much longer than the trees which provided the timber in the first instance.

New Zealand CLT has featured in the NZ Wood Timber Design Awards, such as the Nelson Airport terminal, now under construction, and the Waitomo Caves visitor centre.

The new three storey Kaikoura District Council building was to be handed over to its new KDC owners the very day the November 2016 Kaikoura earthquake hit. Completely undamaged, it served as the HQ for Emergency Management.

Otago Polytech is completing its laminated timber accommodation village, the largest building of its type in New Zealand.

Around the world now, CLT is popping up in Melbourne, London, Vancouver, Vienna and elsewhere.

At the same time governments are appreciating those qualities of wood, particularly environmental, which extend beyond the direct commercial interests of the builder.

Wellington Shire Council, in eastern Victoria, has adopted a wood encouragement policy for council buildings. In May, the Municipal Association of Victoria state adopted an encouragement policy as well.

In New Zealand, progress has been slower. There is no government policy. The Labour Party has a Wood First policy. NZ First Leader Winston Peters has demanded Christchurch get a wooden sports stadium.

The Rotorua Lakes Council has a Wood First policy – the only local government body in New Zealand to have such a position. RLC is hosting the 'Advantages of Timber in Mid-Rise Construction Conference' in Rotorua 27 - 28 September.

A Wood First or Encouragement policy requires responsibly sourced wood to be considered, where feasible, as the primary construction material in all new-build and refurbishment projects. This is usually limited to public sector buildings, but could be applied across residential and commercial.

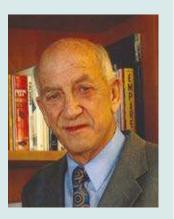
Some countries have gone further, such as Japan, which requires, under law, specific amounts of wood in public buildings. In France, the Law for Promotion of the use of Wood in Public Buildings directs both government and private projects up to three storeys to be constructed in wood, or at least use wood.

Sir Bob Jones relating on Nine to Noon how he had 'phoned his architect asking whether the architect has read the WPMA Opinion column on wooden high rise in that morning's Dominion Post.

'He said 'yes'.

I said, 'Why can't we do it'?

He said, 'This is the best 'phone call I've ever had in my life'.



End of Steep Land Harvest Programme marks new beginning to get boots off the slope

A fielday in Moutere forest in early August year Forest Growers Research, Steep to improve the safety and efficiency of New Zealand.

When the programme began, less than a quarter of felling in New Zealand's forests were mechanised. Today, more than half the trees in our forests are felled

pleased to say that industry and government support has been secured to ensure the research momentum for a new programme which will extend beyond felling and extraction, to include

"The thrust of the new programme is to improve efficiency and safety of these activities and at the same time make forestry an attractive career choice for a new generation of workers. You are

all experiencing first-hand the challenge of finding the right skill sets to get the job done."

The programme will focus on developing

- 1. Adding debarking machinery to a feller head as an option if chemical fumigation of log exports is restricted in future
- 2. Chipping technology on skid sites to and environmental hazards
- 3. An automated sorting and log grading system which can tag logs and capture dimension and grade information, to eliminate subsequent weighing and
- 4. An automated loading system to reduce truck loading times in the forest.

The value of the new seven-year programme Growth Partnership programme contributing with industry and technology partners



Spencer Hill from Logpro recorded by an MPI



A remote buncher-feller does the job with the nearest human 100m away.



Dances with wolves

There's a lot to speculate on the implosions and gaffes which have suddenly given colour and meaning to New Zealand's 52nd general election.

If the Greens don't make the five percent threshold, and even more importantly if the polls indicate pre-election they are unlikely to make that threshold, voters will have a clear choice between National with NZ First or Labour with

Deserting Green supporters have dropped double figure support down to four percent. Most will go to a grateful Labour and help narrow its gap to National. Most

No Greens in parliament also gives Winston Peters another option. Ordinarily, the ex-National MP would find a threesome with Labour and the Greens too much to digest. He would be one of two queen-makers rather than being the only suitor on the dance floor. But these are not ordinary times.

The defectors include those who consider Metiria Turei to be no better than any other fraudster and liar, those who consider she has been forced out by stale white males who have no appreciation of what it is like to be poor and struggling, those who were dismayed at the treatment of two principled MPs who took a stand, those who felt betrayed by the same two traitors whatever the reasons the Green Party was no place to put their vote.

A resurgent Labour has plenty of reason to see the annihilation of the Greens completed. With most of the social welfare vote secure once again in its traditional home Labour can now go after the environmental vote – as it has by putting climate change at the top of its agenda and drawing parallels with nuclear free and a new generation. Labour too will be conscious that they are more appealing to

Winston without the Greens. And as Ohariu shows the Greens are also looking our for

Other countries illustrate that the environmental vote alone is a risky prospect for sustaining a party. In the UK, the Greens are polling one percent and even in Germany, the epicentre of the international green movement, the Green Party is hovering just above five percent leading into a potentially fatal election for it next month.

So, once again under MMP, the focus is on

The Forest Owners Association has met with all the dancers over recent weeks and there are some common threads.

training support and forestry-encouraging manipulations of the Emissions Trading

It is also clear that there are some significant differences between the two most likely political outcomes. If Labour and NZ First form a coalition there is sufficient common ground on forestry to expect:

- A forestry agency, whether it be the
- A forestry department or Ministry,
- A national forest strategy and a wood
- Significant additional changes to the ETS beyond those already signaled (e.g. an independent commission and a price signal for agriculture)

"UNDER EITHER (ELECTION) OUTCOME, THERE WILL BE IMPROVEMENTS TO ROADING INFRASTRUCTURE, TRAINING SUPPORT AND FORESTRY-**ENCOURAGING MANIPULATIONS** OF THE FTS".

than National which would rely more on the market to determine whether





One Standard to rule us all - the National **Environmental Standard gazetted**

The National Environmental Standard for Plantation Forestry has now come into being, eight years after the process began.



The NES creates detailed and uniform environmental engineering standards for plantation forestry throughout New Zealand.

Formally launched at the Beehive on 8 August by the Ministers for Forests Louise Upston and Environment Nick Smith, the NES PF is a long awaited and welcome standardisation of a whole collection of environmental rules which have previously been inconsistently set by different regional and district councils. It is the first national environmental regulation of a land-based production sector.

For many years, the industry has been forced to work in a patchwork regulatory environment. Some rules have applied in some places, but a completely different set of rules could prevail elsewhere in that same forest.

Local government officials now have a clearer, and usually more thought through, set of standards to work with. The forest industry will also benefit from a greater uniformity and clarity of regulations of environmental compliance than before.

A major component of the NES is regulatory protection of designated steeper and more vulnerable landscapes. Forestry is not prohibited in these specified areas, but a resource consent is required for planting.

Overall the NES will be a challenge for the whole industry and represents a raising of the compliance bar for forest and logging operations. For instance, expect to see fewer instances of where a badly constructed logging road or skid site fails in heavy rain and delivers a resulting debris flow onto downstream farms, towns or beaches.

Tasman District Council's Principal Planner of Environmental Policy, Steve Markham says the process of creating the NES PF had complex technical issues and the end result is a challenge to the forest industry and regional government alike.

"Council policy and regulatory staff have focussed somewhat on compliance effort under the NES PF rather than the value of performance and efficiency gains in relation to managing environmental risks. The NES PF will place demands on strategic forestry estate management, but with far clearer resource management signals to guide this sectoral effort."

MPI's Director of Spatial, Forestry and Land Management, Oliver Hendrickson, says NES PF will see some small-scale foresters having to invest more in road and river crossing infrastructure.

"However, these costs have to be seen over the lifetime of a plantation forest and the benefits they bring in ease of access and greater efficiency for activities like harvesting.

There are also reductions in costs for foresters who have spent time advocating with councils on regional and district plans. This is particularly true for large foresters their costs for this are expected to drop by 40 percent in the first year and up to 50 percent by year five."

"Small-scale foresters are less likely to be involved in plan advocacy but for those that do, these costs are expected to drop by half."

DROP IN ADVOCACY COSTS IN THE FIRST YEAR



Environment Minister Nick Smith, "The NES PF are the most comprehensive regulations that have been produced in the 28 year history of the RMA".



FOA Environment Committee Chair, Peter Weir, "The task ahead is implementation of what is the equivalent of a Forestry Practitioners' Code".



The day after methyl bromide

EDN, a fumigant Green MP Steffan Browning describes as 'very exciting', is in line to replace methyl bromide as the standard treatment for killing insects in export logs. But it's a race against time.

EDN needs to be accepted by 2020, by both **New Zealand's Environmental Protection** Authority and the major export markets of China and India.

Methyl bromide can be used after 2020 only if the process can guarantee the ozone depleting chemical will not be released to the atmosphere – something not yet found to be feasible on an industrial scale.

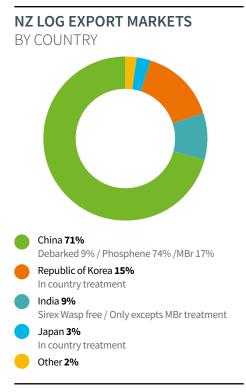
The export log trade is now the largest market for New Zealand's plantation grown trees. More than half of all logs harvested are now sent overseas. China and India continue to grow in importance and now buy 80 percent of all the logs we export.

For decades now, methyl bromide has been the 'go-to' chemical for fumigation of logs to protect the importing country from pests. However, for many decades it has also been recognised that methyl bromide damages the ozone layer, and for this reason, globally, it has been phased out for all but quarantine and phytosanitary purposes.

In 2010, EPA re-assessed the use of methyl bromide and determined that after 2020 the gas would no longer be permitted to be vented to the atmosphere at the end of fumigation. The expectation from this decision was, alternative fumigant chemicals, alternative phytosanitary treatments, or ways of recapturing or destroying methyl bromide, would be found.

In the meantime, as other countries cut back on their use of methyl bromide (including some who insist New Zealand still uses it for some product exports to them) and our log export trade to China and India grows, New Zealand's share of world methyl bromide use has grown to eight percent.

The reassessment was to ensure that New Zealand met its international obligations to protect the atmosphere from ozone destruction. The decision to prevent emissions to the atmosphere was driven by New Zealand's ozone protection commitments - not because there were



human health concerns.

Stakeholders in Methyl Bromide Reduction (STIMBR) is funded by voluntary levies on fumigant chemical. STIMBR has been leading the work to find alternative options.

It's evident over the past seven years that there is no simple answer, a factor as frustrating to the industry as it has been to Steffan Browning. With 2020 looming, delays become an increasing concern for forest owners and exporters.

A major literature review in 2014 confirmed EDN as the only suitable alternative to methyl bromide.

A representative for Draslovka, the manufacturer of EDN, and STIMBR Board member Helen Gear says can EDN be used in exactly the same way as methyl bromide but it also has a number of advantages.

"It is not a greenhouse gas and does not destroy ozone. EDN ultimately breaks down to low levels of ammonia and carbon dioxide so neither it, nor its breakdown products, will accumulate in the environment."

Obviously, to be effective, EDN is poisonous at high levels. But it requires both time and dose to be toxic and at non toxic levels it is broken down and excreted by the body. Protective equipment and good hand-held monitors are available to ensure it can be used safely by those who are applying it.

Helen Gear says EDN has its own an inbuilt exposure alarm. Like when you peel an onion, low levels of exposure to EDS will cause your eyes to water, at concentrations recognised as well below danger levels.

Research by New Zealand's Plant and Food Research since 2014 has shown that EDN can kill the bark beetles and wood borers which cause concern in our markets. We know it will provide insect free logs. Overseas research also indicates that it is effective against phytophthora and fungi, which may be useful if our markets also ask that our logs are free of these microbes.

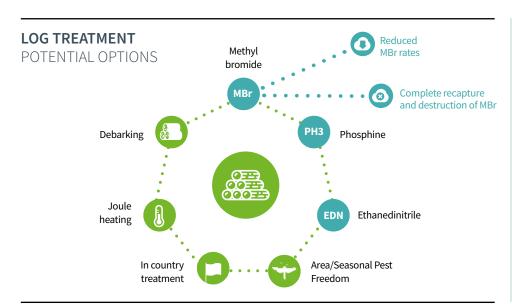
Draslovka lodged an application for the registration of the fumigant with the New Zealand EPA on

14 July 2017. Draslovka intends to bring EDN to market at parity with the current (i.e. no scrubbing) costs of methyl bromide fumigations.





The Indian market has become increasingly important but is restricted to methyl bromide treated logs.



OF ALL NEW ZEALAND'S LOG

EXPORTS NOW GO TO CHINA AND INDIA

The EPA schedule is to call for submissions from interested parties, including from the public, in September. The submission period will run for 30 working days. It is important the forest industry and log exporters express their support of EDN when submissions are called for.

EPA approval of the use of EDN in New Zealand is optimistically expected before the end of this year, but delays in this sort of process are frequent.

Capturing and destroying the methyl bromide, after it has been used, is being investigated. But a fully operational system on the scale required to fumigate the volumes of logs we export, is yet to be developed.

There is also a resulting issue of disposal of the recaptured material and whatever has been used in the recapture process. While legally, some material can be buried in

landfills, this is still not a sustainable solution - it simply leaves it for future generations to manage.

Given India does not accept any treatments other than methyl bromide, it is apparent that we are going to continue needing to use this fumigant for some time to come.

Work is progressing on using lower rates of methyl bromide and recapturing gas left after the completion of the fumigation.

Joule heating, where an electric current is passed through the logs to kill all insects and potentially other species such as fungi, looks promising long term.

A search for harvest regions free of the insect pests in winter has identified only limited areas.

So, none of these activities have provided a reliable alternative to our current use of methyl bromide for logs.

There has also been work on debarking logs to reduce the risk they pose. Debarking is not an accepted phytosanitary treatment, it simply reduces the risk, and is only approved by China. India does not have the sirex wasp, which bores deeper into the wood, too deep for debarking to remove.

The ability to continue using methyl bromide for the foreseeable future is of vital concern to the sector meaning there is huge effort to find a solution to the 2020 EPA requirements to ensure the log trade is able to continue.

To put the issue in context, as FOA President Peter Clark says, securing continued export log access to these key markets is 'the single largest non-tariff trade barrier New Zealand has ever faced'.



Think you're doing well on health and safety? Take a closer look

"We thought we were doing ok on health and safety," said Landcorp Chief Executive Steven Carden. That was before New Zealand's largest farmer took a closer look at its figures and practices.

Landcorp thought it was doing rather well in health and safety. That was until three deaths in just three months in 2015 forced the state-owned enterprise to transform from box-ticker to industry safety leader.

Steven Carden told the Forest Industry Engineering Association (FIEA)'s Safety Summit in Rotorua earlier this year, that Landcorp had had launched an innovative Play It Safe programme in 2014.

It hadn't worked. The deaths the following year showed Steve Carden Landcorp's safety system had "failed catastrophically and we were all responsible."

The turnaround is reflected in Landcorp's statistics. Last February Landcorp achieved an index score of 47.25 per million hours worked, in the Lost Time Injury Frequency Rate (LTIFR) Database. It was a rate comfortably above many other companies.

It was apparent to Carden's team that Landcorp had been scatter-gun in its approach.

"When we started deeper investigation, everywhere we looked, we could see unsafe behaviour. We needed safety to become a part of everything we do," he said.

Play It Safe was refreshed, with four key areas: learning from incidents on the farms; focusing on 'critical risk' controls; safety leadership training for all staff; and managing 'dynamic risk' on a day-to-day basis.

The team also decided to tackle the underlying causes of the accidents, which included fatigue and poor nutrition, training and literacy and mental resilience.

Landcorp encouraged its staff to speak out when there were near misses, property damage, unsafe behaviour, minor environmental incidents and discomfort reporting.



The new Business Leaders' Health & Safety Forum Leader of the Year, Landcorp's Steven Carden.

This resulted in a massive increase in reported risk events, rising from 439 in 2014 to 3,067 in 2016 – an increase of 600 percent over the three years to the end of 30 June 2016.

Analysis pinpointed that 78 percent of the events came from eight risk events and enabled further investigation and remedies to be carried out. The top five were: being struck by cattle in the cow-shed (one incident every two days): falling off a farm motorbike (one every three days), being crushed or struck by cattle or sheep in the yards (one of each every five days), or losing control of a tractor (one every 17 days).

A 'risk heat map', looking at the consequence of an incident – that is, will someone be killed, maimed, or hurt? – mapped alongside the likelihood of it happening, gave a better understanding of its risk profile and clarified thinking on the nature and impact of the risks. This was backed up by a detailed bowtie analysis of each critical risk to understand what caused it, what the consequences were and how to control future risk.

As a result, Landcorp has invested \$3 million more in new infrastructure, fit-for-purpose health and safety equipment and new technology for communications and data. It has lifted skills and training for all of its 700 staff caring for 1.6 million animals, including board and senior management, introducing a compulsory full-day safety training session for every staff member at the company's new dedicated Agriculture Safety Academy.

"Our goal is to make safety a common, everyday topic of conversation at every moment," Carden explained. Landcorp is also now part of a cross-sector Agricultural Leaders' Health and Safety Action Group within the 'Making Farms Safer' initiative.





According to Carden, the key questions leaders must be able to answer are;

- When was the last fatality or life-altering injury in our organisation and what were the names of the victims?
- Do any of my behaviours as a leader suggest that injuries are "a part of doing business"?
- Are we maintaining a sense of vulnerability? Forest Industry Safety Council National Safety Director Fiona Ewing applauds the Landcorp focus on critical risks and listening to the people who actually do the work.

"What Landcorp found was that all the workers assumed there wouldn't be money to fix things, so they simply made do. But there was money available. That information needs to get out at a senior level so that safety can be actioned throughout the company.

"It shows that authenticity, having good conversations and listening to workers is really important."

Fiona Ewing says forest owners and growers can take away an example of excellent leadership from the case-study.

"This is how you can do it. It particularly resonated with me because it's what FISC is doing - focusing on the critical risk areas," she says.

Landcorp's efforts have been recognised by the health and safety community with an award for Carden, who scooped the Business Leaders' Health & Safety Forum Leader of the Year category in the 2017 New Zealand Workplace Health and Safety Awards announced at a gala dinner at Auckland's SkyCity Convention Centre in May.

The farming company was also a finalist in two further categories: the NZ Safety Blackwoods best initiative to encourage worker involvement in health and safety and Landcorp's former general manager people and safety, Lucy Wills, was a finalist in the NZISM health and safety practitioner of the year.

Independent forestry services supplier PF Olsen, which is contracted by Landcorp to manage its forestry services, also won the IMPAC best collaboration between PCBUs category in the same awards. PF Olsen initiated a project involving multiple PCBUs

to clarify and improve the expectations on forest service providers when they come onto a working forestry site.

Another forestry award winner was equipment specialist Waratah NZ, which won the 3M best use of NZ design/technology for a chain head orientation sensor to warn mechanical tree harvest operators when they are at risk of exposure to chain shot.



Compulsory full-day safety training is now given for every staff member at Landcorp's dedicated Agriculture Safety Academy.



Canadians no concerns over pest spraying

While New Zealand biosecurity responses frequently provoke a negative public reaction, in British Columbia insecticide spraying in public places is business as usual.



Pesticide spraying in British Columbia is not restricted to plantation forestry but includes amenity plantings.

The British Columbia provincial government extensively uses aerial and ground insecticide spraying against pests such as gypsy moth.

FOA has been concerned that our government has lost a social licence to spray invasive pests, particularly in densely populated areas, whereas the Canadian authorities do not have that difficulty.

Canadian law denies residents a right of appeal against the spray on human health grounds. The Bt spray has been sufficiently demonstrated as safe to use over food crops.

The second Canadian strategy uses traditional media such as newspaper notifications, digital channels and social media, and also email notifications, to keep the public informed.

Crucially, the BC authorities insist on access to officials through open channels of face-toface and telephone or email contact.

Residents are door knocked before each spraying, so they can ask questions and seek reassurance from a person actually participating in the spray programme.

Residents have a high level of trust in the spray operation programme because BC officials keep them informed about the timing, effects, and benefits of the spray programme, treat their concerns seriously, and provide feedback (and thanks) at the end of the spray programme.

This personal approach, which costs up to a third of the total spray programme budget, has resulted in residents' acceptance and tolerance of the need for the spraying. Few, if any, complaints or protests are received, and residents are generally aware of the need to use an insecticide and how best to manage the effects on a personal level.

FOREST GROWERS LEVY TRUST

ELECTIONS FOR THREE POSITIONS ON FOREST **GROWERS LEVY TRUST**

Nominations are being called for the Forest Growers Levy Trust, the body which oversees how the Forest Growers Commodity Levy is invested.

One board member is to be elected representing forest holdings smaller than 1,000 hectares and two members representing more than 1,000 hectare holdings.

Further election information can be found and nominations entered at www.forestvoice.org.nz.

Nominations open Friday 22 August and close Friday 22 September.

The election itself runs from 9 October to 20 October.

The levy is on all harvested wood products, at a current rate of 27 cents per tonne. A work programme is agreed on each year through a transparent applications process.

Most of the income is invested in research and development, which ranges from work on mechanising steepland harvesting to growing dryland eucalypt plantations. Funds are also allocated to health and safety, biosecurity, environment and fire protection.

More detailed information on the work undertaken through the FGLT is available on their website.

www.fglt.org.nz





FOA and FFA feature at Mystery Creek

The FOA/FFA theme at the Mystery Creek Fieldays this year was to focus on the economics and environmental advantages of growing woodlots on farms.

calculations for planting out 15 hectares.

hectares worth of seedlings and \$2,000 Rodger Rangi of Marton, who is now busy working out where to put the trees.

Rodger was delighted to win after submitting his benefit/cost-of-plantingbefore in my life".



Minister of Forests Louise Upston took a cuttingly vigorous approach in her visit to the FOA/FFA site.



Arborgen's Tokoroa Nursery Manager Nathan Milne congratulating Rodger Rangi on his prize.



Rural Fire Control Charter signed



Signatories to the Charter, from left Neil Cullen FFA, Rhys Jones FENZ and David Rhodes FOA.

FOA and FFA have signed a Charter with Fire and Emergency New Zealand, to cover the period between the disestablishment of the Rural Fire Services and the fully integrated urban and rural national fire organisation.

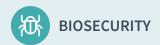
The Charter provides for continuing to work together for effective rural fire control, to support fire research (including Scion's Fire

Research Programme) and collaborate on national guidelines and fire management policies.

The forest sector has undertaken to continue to provide resources to assist in fighting fires and rely on the NZFOA Fire Management Guidelines.

New Gisborne Airport billboard publicises forest biodiversity





BIOSECURITY LEVY

Consultation has begun on a proposed FOA and FFA application under the Biosecurity Act 1993 for a levy to meet costs of controlling a biosecurity incursion threatening New Zealand plantation forests.

Sharing costs and decision making are obligations under the Plantation Forestry Government Industry Agreement for Biosecurity Readiness and Response which FOA signed on behalf of the industry in 2015.

The invasion of a major pest or disease is the greatest threat to our plantation forest industry, with many candidates on the 'most unwanted' list. The most recent fungus invasion of note has been myrtle rust, with some susceptibility known in our commercial eucalypt species, which are also attacked by the most recent insect pest arrivals, also from Australia, eucalypt beetles.

A proposed biosecurity levy would be completely separate from the existing Harvested Wood Products levy. Some of the HWP levy is indeed used for biosecurity surveillance, but this levy money is specifically excluded from paying the likely huge response costs if a major infestation was then found.

A forest industry GIA response will be initially funded by borrowings, with the levy acting as collateral and subsequently being called on to service any loan.

The levy would initially be set at zero until an incursion is responded to under the GIA protocols.

For further information contact: glen.mackie@nzfoa.org.nz



Myrtle rust infection induced in *E. nitens* – CSIRO.



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