FOREST OWNERS ASSOCIATION

WINTER 2013

NEW ZEALAND FORESTRY BULLETIN

MAKING OUR FORESTS SAFE

A CONCERTED EFFORT IS UNDERWAY TO MAKE OUR FORESTS SAFER PLACES TO WORK.

Breaking out is one of the two most hazardous tasks in forestry
An industry training and certification programme is underway now and is ready to go nationwide once funding comes through

Nine people have died in forest harvesting accidents in the last 18 months – a matter of deep concern to forest owners, contractors and the families of those who work in the industry.

"This toll is unacceptable. Serious injury and death in our workforce is the most important issue we face as forest owners and employers," says FOA health & safety chair Sheldon Drummond.

"Forests the world-over are hazardous places to work and – once you make allowance for our much more rugged terrain – our accident rate is not out-of-line with other countries. This is not an excuse, but an indicator of the size of the challenge in front of us.

"Our objective is to do significantly better than Australia, British Columbia and the United Kingdom – places we often compare ourselves with."

A new Approved Code of Practice (ACoP) was launched earlier this year. The next step – as soon as promised funding from ACC comes through – will be the roll-out of a breaking out certification programme, along with several other initiatives that are ready to go.

Breaking out – the extraction of felled logs – and tree falling are the two most hazardous jobs in the forest.

A breaking out certification programme, based on the ACoP and a new best practice guideline (BPG) has been developed by Les Bak of Nelson Forests for the FOA. Bak has also developed a faller certification programme for Nelson Forests and will further develop this for industry-wide use.

At the moment, breaking out certification is being delivered by a small team led by Les Bak on behalf of the FOA for individual forest owners and contractors who are willing to pay the full cost of delivery.

"This is admirable, but to make good progress, certification needs to be delivered to all forest employers nation-wide. That will only happen when there is funding and regulatory back-up to support it," Drummond says.

A year ago, the FOA hired ACC's former forest programme manager Don Ramsay as a health and safety advisor. He also works on contract for the Ministry for Business, Innovation & Employment (MBIE) as the team leader for their harm reduction programme for forestry.

Forest safety has always been a joint employer/government/ACC responsibility, with strong links to industry training. As Ramsay is one of the few people to have a detailed understanding of the many initiatives underway and how they all fit together, it is fortunate to have him on board, says Drummond.

Basically, what's happening is that MBIE is developing harm reduction programmes for all high-risk industries. Employers will be required to have plans in place to address identified harms. Ministry inspectors will then make site visits to make sure these plans are actually being implemented.

"Breaker out and faller certification will provide a way for employers to get up to speed on the requirements to address the potential harms identified by MBIE, so it's important that the two initiatives are co-ordinated," Ramsay says.

"Once the ACC funding comes through, breaking out certification will be rolled out nation-wide, followed by the development and rollout of the faller certification programme," he says.

A potential complication will be changes to the Health and Safety in Employment Act which may come into force early next year. This will see the establishment of a new stand-alone workplace health & safety agency which will inevitably result in a period of policy flux.

Drummond says the new agency is a good idea, but the FOA can't afford to lose its focus. "The new code is the result of exhaustive consultation as are all the other measures we are now rolling out. Forest owners, contractors, employees, MBIE and ACC have all had their say. The time for action is now ... lives depend on it."

For more on health and safety, go to the story on page 5

IN THIS ISSUE

WHY SO LITTLE FAITH?

MARKET PROSPECTS FOR FOREST PRODUCTS APPEAR REASONABLY GOOD, EVEN THOUGH LOG AVAILABILITY WILL INCREASE STRONGLY THROUGH TO THE MID-2020s.

Forestry is more profitable in many districts than the main competing land use, hill country sheep and cattle farming. It offers much to the environment, regional economies and the nation.

There is also room to increase forest productivity. The 2013 forest growing Science and Innovation Strategy estimates that gains of around 5m³ per hectare per year can be achieved by applying existing knowledge more effectively, plus 5m³ more from reducing losses and advances in silviculture and genetics.

Despite these positives, forest owners are showing little inclination to plant new forests. Indeed many are converting their land to other uses.

Why so little faith?

There are two main reasons: An inadequate return on investment in new forests and political risk.

In his company e-letter *Wood Matters* FOA council member and PF Olsen chief executive Peter Clark says the cost of land must be carried for the full forest growth cycle – typically 30 years.

Unlike farmers, forest investors look for 'hurdle' rates of return on their investment in the order of 7% - 8% a year. Yet farmers are traditionally willing to accept returns of 3% or less. During the last 10 years, according to MPI, that has dropped to 1.4%, pricing forest owners out of the land market.

The other dampener is government policy risk. The classic example is the way Labour and National have played fast and loose with forest owners in the development of their ETS policies.

Sure, some forest owners sold NZUs at $20 in the early days of the ETS and have bought them back at $1.80, making a good profit along the way. But the ETS was not set up just to be an arbitrage opportunity. It was set up as an eco-system market designed to send price signals that would reward good environmental behaviour. As such it has been a failure.

The FOA has long advocated for the concept of payment for eco-system services. But eco-system markets involving forestry can't operate without a high level of cross-party accord so that land owners can make long-term investments with confidence.

Until this occurs, the ETS is unlikely to have much influence on planting. The biggest influence will remain the international demand for building materials.

This youngster has good prospects
But he will have few classmates, thanks to land prices and political risk

China, where demand for wood has been growing at around 15% a year, now takes close to 70% of our log and pole exports by value. And while China has a growing plantation forest industry of its own, about one-third of its 2020 demand of around 480 million m³ will have to be satisfied from offshore.

Another market positive is the recovery in the US housing market. This will eventually reduce the volume of logs and lumber being exported from the Pacific northwest to China. Similarly, when the supply of mountain pine beetle damaged logs in Canada runs out, there is expected to be a reduction in their annual cut from historical rates.

For forest owners, growing demand from China has brought welcome financial benefits. But our forest and wood processing industries are inter-dependent and there is no doubt all players would be better off having more of our raw material processed at home.

The Wood Council Strategic Plan recognises this and its Woodscape study was undertaken to explore the opportunities. The study, released three months ago, confirmed that while margins for traditional sawmilling are tight, opportunities exist for those industry players willing to embrace innovative new technologies.

To reinforce this message, a number of industry players are investigating such things, among them Norske Skog which has joined with Z Energy in a major Primary Growth Partnership project to explore the production of liquid biofuels from wood waste.

In the *Forestry Bulletin* we have previously covered the pre-stressed lumber technology developed by STIC and the University of Canterbury which has been used successfully in a number of buildings around New Zealand. Similarly a 10-storey wooden apartment building made from cross-laminated lumber now sits alongside the Melbourne Cricket Ground.

Thus far, offshore investment in New Zealand has been focussed on forests rather than on processing, but that might change. The Chinese know their business models need to change in the face of greater environmental pressures, increasing labour rates, shrinking unemployment and growing energy concerns.

In that context, it is pertinent to ask whether the practice of shipping wood (and a lot of water) 10,000 kilometres is a sustainable one.

If the answer is 'no', the next question potential investors will ask is about the sustainability of New Zealand's log supply given the lack of new planting and net deforestation. The answer to that question may warrant some consideration by government, given the lack of policy consistency with respect to forestry over many decades.

There are examples of where the government is working well with industry but it would help to have a policy position that clearly spells out its priorities for the sector.

RMA PROJECT PROGRESSING (SLOWLY)

THE FOA CONTINUES TO WORK WITH MPI TO GET CONSISTENT ENVIRONMENTAL STANDARDS FOR FORESTRY APPLIED ACROSS THE COUNTRY.

In early August members of the FOA environmental committee met with Ministry for Primary Industries (MPI) officials, who have Cabinet approval to progress the issue.

This follows the government decision in April to defer any further work on a national environmental standard for plantation forestry (NES) until water and RMA reforms now underway are completed.

FOA environmental committee chair Peter Weir says forest owners had been working with the Ministry for the Environment (MfE) on the NES since 2009. The objective – to reduce the huge variation in district and regional plan requirements for normal plantation forest activities and the burden of participating in regional and district plan-making – remains worth pursuing.

"Our members and their contractors need to know what is expected of them when operating in a particular terrain, soil type and receiving catchment wherever we are in New Zealand. We have no problem with robust defensible standards, but want those standards to be science-based, consistent and involve the minimum of paperwork."

He says he is very pleased that MPI has picked up the cause where the MfE left off. The starting point is the proposed NES.

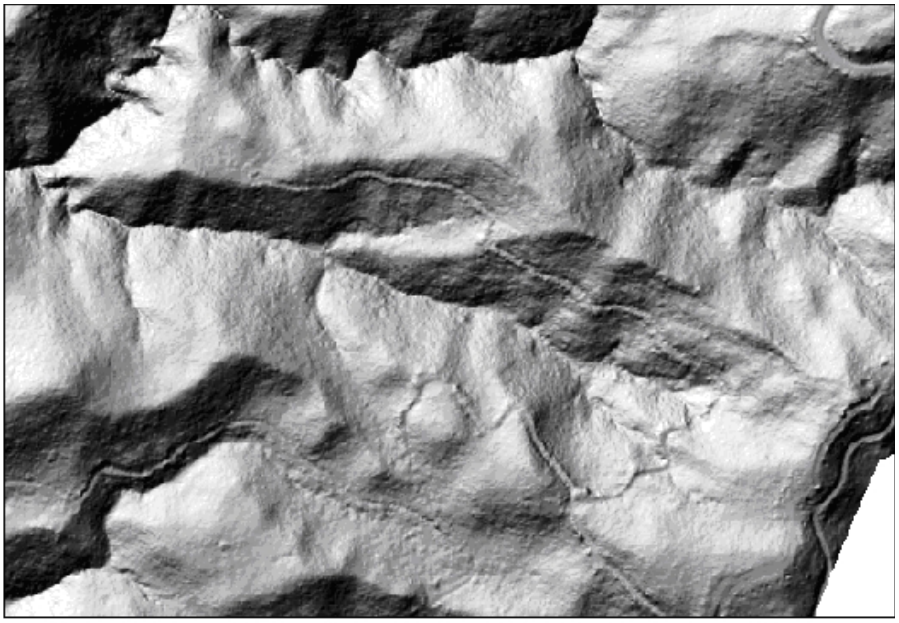
"The aim is to be ready with complementary measures for forestry when the government announces its water policies in 12 months. As part of this, we hope MPI can fund detailed LIDAR (airborne radar) mapping of NZ's hill country, to update and replace the erosion susceptibility maps produced by the Ministry of Works in the 1980s. MPI might also develop a national Approved Operator system as is currently implemented by Environment Bay of Plenty."

The government decided to put the development of the NES on hold on the advice of environment minister Amy Adams. Having a forestry NES in place before a national direction on land use and water quality could, she said, result in forestry activities being treated differently to other activities.

On a practical level there was also a concern, shared by the FOA, that existing erosion susceptibility maps – upon which the NES relies – are on too coarse a scale. Many are on a scale of 1:50,000 (or 1:64,000), whereas the degree of accuracy needed is more in the order of 1:10,000 or 1:5,000.

The current version of the NES comprises rules for eight activities related to forestry, across four erosion susceptibility classes, which would largely override rules in district and regional plans. It addresses land use effects on water quality, particularly sedimentation effects arising from harvesting and earthworks.

"It was very frustrating for the members of the NES development group to have the NES put on hold, but many of the drivers for the water reforms are the same as ours, so hopefully they will take us closer to our goal," Weir says.



LIDAR maps show incredible detail, even through a closed canopy
Detailed maps to determine erosion risk would make an NES a practical option

LEVY JOURNEY CONTINUES

Getting a levy to fund industry-good activities has moved another step closer, with filing of a formal application with associate minister for primary industries Jo Goodhew.

Geoff Thompson

This follows a successful forest grower referendum in March which saw 502 growers (86.3% of those who voted) confirming 'yes' by number and by area for a commodity levy on logs and other forest products.

Forest Growers Levy Trust chair Geoff Thompson says officials will now take several months to assess the application and all the accompanying detail about levy collection, budgeting and ongoing structure.

"Meanwhile the trust will be focussing its energies on the operational arrangements ... how everything is going to work," he says.

"When we eventually get the minister's sanction for the levy, we will need to have our new constitution drafted and be ready to run an election to elect a new board. Governance of research also needs to be formalised. "It may sound tedious, but it is crucial that we get all this foundational work right."

The proposed levy rate is 27 cents a tonne of harvested logs in the first year and can be raised to a maximum rate of 30 cents a tonne over the six year term of the levy order. This is expected to total more than $6.5 million a year.

Most of this will be applied to industry-good projects like improved health and safety, ensuring high levels of protection against biosecurity risks and researching many issues from improving seed genetics to harvesting methods.

Mr Thompson says log buyers will play a central role by providing the log purchase data needed by the trust to collect the levy. Their input will strongly influence the shape of the trust's data collection systems.

He says the trust is fundamentally on target to introduce the levy from 1 January 2014.

WHAT CARBON FORESTRY?

THREE YEARS AGO, LAND OWNERS AND INVESTORS WERE WARMING TO THE CONCEPT OF CARBON FORESTRY.

While forestry was the reluctant first sector to enter the Emissions Trading Scheme (ETS) in 2007, awareness of the potential for growing forests to sequester carbon slowly grew and by 2010 some new forests were being planted.

Since then, the global economic crisis has mauled the price of carbon. But in New Zealand this price signal has been amplified by the government's decision not to place any restrictions on the number of international units that emitters can use to meet their obligations.

"New Zealand now has the lowest carbon price in the world – well below Australia or Europe," says FOA chief executive David Rhodes.

As a result, some carbon forestry initiatives have gone to the wall and deforestation is gathering pace. The big driver is the need to act before 2015 when New Zealand withdraws from Kyoto and cheap international carbon units cease to be legal tender in the ETS.

With ERUs (Emission Reduction Units) available for around NZ 70 cents (up from 30 cents in a month), emitters are buying these to meet their current emission obligations rather than surrendering New Zealand Units (NZUs) worth around $NZ2.50. This is a logical response and includes forest owners.

The recently released EPA report on New Zealand's emissions performance for 2012-13 has confirmed that many pre-1990 forest owners with land suitable for dairying or tourism are converting now and paying their deforestation emission bills with ERUs. Post-1989 forest owners are rushing to extinguish their future NZU liabilities and some are buying their forests out of the ETS.

Meanwhile, those forest growers who, by choice or circumstance, will be remaining in the ETS are putting their NZUs in the bottom drawer against the day they may be needed.

Owners of pre-1990 forests who are remaining in forestry have few ways to minimise their forward risk exposure, apart from buying and holding NZUs.

They cannot extinguish their deforestation liabilities without physically converting their land to another use. Temporary deforestation does not satisfy the deforestation test. An overt act is needed, such as converting to grazing, for deforestation to occur.

They can offset (replant their trees in a new location) after harvest, but this is a far from costless exercise. Also the ETS liability remains with the new land.

None of these actions has anything to do with combating climate change, but they are economically rational. Rhodes points out that it takes about $8-$12 to grow a unit of carbon and growers have all the price risk at harvest, as well as significant compliance costs.

Carbon trader OMF points to the possibility of much higher NZU prices in the medium-term. In theory, when you include the second tranche of NZUs allocated to pre-1990 forest owners, there will be enough NZUs in the system to cover demand from emitters from 2015-2019.

"The reality is very different," says OMF's Nigel Brunel. "Why would pre-1990 forest owners sell their tax-free NZUs at around $2.50, unless they were desperate for cash? Our view is there are not enough NZUs for sale at current prices to meet post-2015 demand for units from emitters."

Sometime this year the government will announce New Zealand's 2020 emissions reduction target. While National won't want to do anything to significantly drive up the price of NZUs, it is unlikely that forest owners holding NZUs will part with them unless this occurs.

This impasse, if it results in a significant increase in the NZU price, may lead to the government auctioning NZUs to drive the price down. How high the price would need to go before it did this is unknown.

Labour's spokesperson for climate change Moana Mackey has entered a member's Bill into the parliamentary ballot. In the unlikely event that it becomes law, ETS participants would have to meet at least half their emission obligations with NZUs.

Demand and hence prices would increase as emitters sought to buy NZUs from forest owners and other reluctant sellers.

While Labour and the Greens would be comfortable with a higher NZU price than National, there would be limits to the price that any NZ Government, regardless of their political hue, would allow carbon to reach, with the EU price being the likely upper limit.

Currently the EU carbon price is around €4.46 a tonne (NZ$7.40), with the potential to increase to more than €6 ($NZ9.95) if EU legislation to support prices is ratified. This is well below where NZUs were priced three years ago, but a very big increase on recent prices.

At the same time it is well below the $15-$18 price range where carbon forestry becomes a competitive land use in its own right. But for planting to resume, investors and land owners would need to have the confidence that government policy over at least 10 election cycles would support such a price.

Given the events of the last six years – barely two election cycles – this seems extremely unlikely.

Moove that tree!
2015 is just around the corner

THE COMPLEX WORLD OF SAVING LIVES

MAKING BIG IMPROVEMENTS IN SAFETY PERFORMANCE IN OUR FORESTS WILL NOT BE EASY. BUT WE ARE DETERMINED TO DO IT, SAYS FOA HEALTH & SAFETY CHAIR SHELDON DRUMMOND.

The challenge is not a new one. Some 20 years ago the forest industry realised it needed to do better. Codes of practice, best practice guidelines and training programmes were among the tools adopted.

As a result, the number of ACC new injury claims halved between 1995 and 2010, from 600 to 300 a year. The fatality rate per tonne of logs harvested initially fell sharply, then plateaued as loggers moved into increasingly steep country.

"By the mid-2000s it was clear the safety systems we had in place were not going to yield more improvements," says Drummond. "So, in association with ACC and what is now the Ministry of Business, Innovation & Employment (MBIE), we unpicked the whole system and pretty much started again."

In the last few years the IRIS accident and near-miss database has been revamped and a revised FOA drug and alcohol-free workplace strategy developed.

A new Approved Code of Practice (ACoP) was rolled out earlier this year and a best practice guideline (BPG) and certification programme for breaking out have been developed – one of the two work areas where most serious accidents occur.

The other high-risk activity – tree falling – is the next on the list. MBIE has a researcher developing harm reduction indicators for the task and once promised ACC funding support comes through, Competenz will develop a revised tree falling BPG and the FOA a certification programme that will provide the tools for employers to enable them to address the causes of the harms.

Meanwhile, research into mechanised logging on hill country – with the aim of removing workers from the areas of greatest risk – has continued (see *Forestry Bulletin*, Summer 2012-13).

If there has been a weakness in these and other safety initiatives, it has been in their uneven adoption across the sector. As FOA senior policy analyst Glen Mackie points out, there has been patchy enforcement of the requirement to train workers, implement formal safety programmes or to adopt the ACoP.

"Sure, there's a legal obligation to take all practical steps to ensure the safety of employees, but it has largely been used to punish poor performers after an accident. There need to be strong incentives to do the right things so accidents don't happen in the first place."

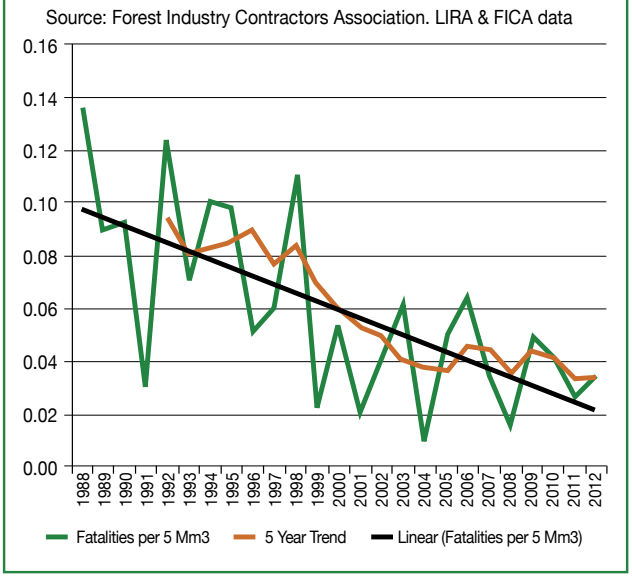
If you want evidence that 'doing the right thing' pays dividends, look no further than the performance of members of the FOA and the Forest Industry Contractors Association (FICA) relative to non-members.

FOA members (predominately using FICA contractors) are responsible for approximately 80% of the NZ log harvest, but only 40% of the 41 deaths thought to have occurred in forest accidents since January 2006.

"In other words, 60 per cent of the deaths occur in forests and on farms producing fewer than 20 per cent of the logs," notes Mackie. "While all forest owners need to do better on the safety front, our tail-end performers are of particular concern."

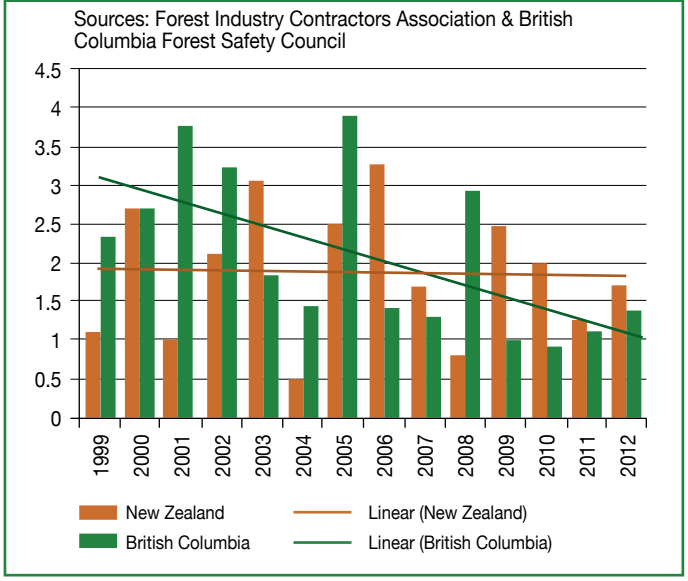
The FOA and the Forest Industry Contractors Association (FICA) support MBIE's proposed harm reduction

NZ logging fatalities 1988-2012



The long-run trendline is very positive, but a closer look shows a big improvement in the late 1990s as a result of industry initiatives, followed by a period with little or no further improvement as logging crews moved increasingly into steep country. This led to a major rethink of safety practices in the late 2000s and the development of major initiatives that are now being rolled out

Logging fatality trends New Zealand & British Columbia



British Columbia and New Zealand have similar logging fatality rates, with big fluctuations from year-to-year. BC's improvements from 2009 -2011 largely reflect a shift in harvesting to easier country since 2008. Since late 2012 there has been a worrying spike in BC fatalities (not shown on the graph), as loggers have moved into steeper country in response to stronger US market demand

programme, but they also want to have a contractor accreditation scheme that is linked to ACC accreditation and meets the requirements of the MBIE programme.

The wide range of performance within the sector shows there is a big potential for the poor performers to lift their game. In addition, there is the potential to make the good performers even better. After all, some fatalities and serious injuries occur in highly professional crews working for forest owners who are totally committed to the highest safety standards.

FOA safety advisor Don Ramsay
Contractor certification can be used to identify and reward the good performers

On the pro-active side, a pilot safety culture programme run in 2011/12 in a FOA member's forests in the Hawkes Bay/ southern North Island resulted in a 60% reduction in harm-related accidents. But progress then stalled, demonstrating that it takes more than attending two or three workshops to grow a safety culture.

Real improvement happened when leaders, crews and supervisors committed to improve and lead positive change by their actions and words. Other initiatives under way in the pilot crews around the time of the safety culture initiative included a halving of the D&A random test fail rate, training in key risk tasks, an active safety leaders' group, safety goal setting at a crew level and more recently, increased mechanisation. All have made a contribution to reducing harm in some shape or form. Accident rates in this region are now the lowest in the business.

On the reactive side, we need to know more about why people make unsafe decisions.

"Most accidents are not really accidents. They often involve individuals making decisions that involve a breach of the Code of Practice or not following the broader guidance in the sector BPGs," Drummond observes. "We need to find out what is driving these decisions".

The FOA will use funding from ACC to explore this conundrum and other aspects of workplace and personal behaviour that might impact on safety. For its part, MBIE will be looking at working conditions such as of hours worked and how these relate to accident statistics.

As as official agency, MBIE has access to coroners' reports which – surprisingly to some – are not available as of right to industry organisations. Hopefully MBIE will also be able to access training records of accident victims, information that is denied to FOA researchers on privacy grounds.

Mackie says access to more accurate and relevant data will make it possible to dig into the causes of accidents and uncover any common factors.

The FOA is considering a proposal to use coroners' reports – once personal data has been removed – as learning tools. Each time there is a death, a poster could be sent to all contractors as a focus for discussions with their workers facing the same hazards.

ACC funding will also be used to produce tailgate meeting resources for contractors to use with their crews.

Even though the industry is applying the collective wisdom of its members, ACC and MBIE to the challenge of achieving zero serious harm, it is open to new ideas and the insights of others, says Drummond.

FOA therefore supports an expert inquiry that will report to a group representing all players – forest owners, contractors, and workers.

"But for the inquiry to work, everyone involved must leave their politics at the door. And the inquiry's findings must be allowed to stand on their own merit, regardless of the implications they may have for the parties involved," he says.

"Every one of the workers in our industry has a right and a responsibility to return home safely from our forests at the end of the working day. Achieving that outcome is what the inquiry and all our health and safety initiatives are about."

FICA chief executive John Stulen says broad input to a terms of reference for the inquiry will be sought and then a consultant or consultants selected to do the work. Invitations to the various organisations involved to nominate their representative will go out shortly.

TRAINEES CELEBRATED

Matt Winmill and Daniel Jackson, of Waikouaiti-based Gillion Logging, with minister Goodhew

Associate primary industries minister Jo Goodhew has presented breaking out certification certificates to Matt Winmill and Daniel Jackson, the first southern trainees to complete a new certification programme run by the FOA.

"The industry has shown a strong commitment to work with government on injury prevention," she said at the 2013 southern region forestry awards in June. "Government, industry and trainers all have a part to play.

The breaker out certification programme began in Nelson and is progressively being introduced to forests across the country. It is being delivered for the FOA by a small team working under the guidance of Les Bak of Nelson Forests Ltd.

The awards function was organised by Competenz and the Southern Wood Council. In total 185 national certificates were achieved by forestry workers south of the Waitaki River last year.

OZONE DEPLETER UNDER PRESSURE

A MAJOR RESEARCH EFFORT IS UNDERWAY TO FIND ALTERNATIVES TO METHYL BROMIDE (MB).

At the moment, MB fumigation is the treatment of choice. That's because it does a good job and is accepted internationally as the gold standard for fumigation.

But because it depletes the ozone layer in the upper atmosphere, it is now banned from use as a soil fumigant and for uses other than quarantine and phytosanitary treatments.

Of all our export industries, forestry is the most reliant on MB use. Fumigation of logs at ports is highly visible and in some port cities is controversial because of unsubstantiated public fears about health effects on residents.

Adding impetus to the drive to replace and reduce the use of the MB is a NZ Environmental Protection Agency (NZEPA) decision that all MB used in New Zealand must be recaptured or destroyed by 2020. At present, when log stacks are fumigated, the spent gas is released into the atmosphere.

Driving the research is Stakeholders in Methyl Bromide Reduction (STIMBR), a group of industry players involved in the treatment of exports and imports. STIMBR's research budget comes from voluntary levies on the use of both MB and phosphine, another fumigant. The public share of funding comes from the Ministry of Business, Innovation & Employment (MBIE) and the Primary Growth Partnership (PGP), through the Ministry for Primary Industries (MPI).

The six-year STIMBR-MBIE programme will cost $8.2 million and the STIMBR-PGP programme another $2.37 million.

STIMBR executive director Ian Gear says it would be premature to claim any breakthroughs.

"We are making good progress, but we are dealing with biological systems that work at their own pace. Then, assuming we have the data to support new approaches, MPI will need to negotiate individually with each importing country to get their approval for a given treatment," he says.

One thing is certain, when the work is complete, we will know a lot more about the biology of pests like the burnt pine longhorn and the two bark beetle species of concern.

To test a phytosanitary treatment, scientists need large numbers of the various life stages of each of the pest species. Sourcing these on-demand in the wild is a challenge. Hence a focus on finding out how to breed them in the lab … another challenge.

"It's early days, but we are pressing forward in an endeavour to establish self-sustaining populations living in the lab," Gear says.

Until replacement treatments are developed and adopted, it is important we use only the amount of fumigant needed to do the job and no more.

By mid-2014, scientists will know exactly how much MB and phosphine are needed to ensure shipments of logs and lumber are bug-free. Early results point to a possible 40% reduction in standard MB fumigation rates and big cost savings for exporters.

But no matter how much or how little MB we use, by 2020 the spent gas needs to be destroyed or recaptured for re-use. At present, MB is recaptured from shipping containers after fumigation, by pumping the fumigation atmosphere through drums of activated carbon … a technology that is seen as impractical for log treatment because it would generate massive quantities of carbon waste.

The good news is that Scion has identified a way to potentially destroy MB following log fumigation. It has also found a potential way to recapture and recycle the gas.

"STIMBR is very keen to explore these options with a view to having them ready to go before the 2020 deadline," says the FOA's Glen Mackie, a member of the STIMBR streering committee.

Ozone-friendly fumigant chemicals are also being explored. A search for potential candidates is underway, as are experiments involving known alternatives including phosphine, ethanedinitrile (EDN) and potentially sulfuryl fluoride.

The ideal, of course, would be to do away with fumigants entirely, but it will take much longer than the 2020 deadline to get market approvals for novel alternatives.

One such alternative is to heat logs with an electrical current. Known as joule heating, the system being developed involves attaching 20-odd electrodes to each end of a log and pulsing it with electric current until the internal temperature reaches about 60 deg C.

This world-first, developed at Canterbury University, is likely to be cost-effective. Possible side benefits include killing wood spoilage organisms and allowing the operator to determine the volume and grade of wood present in the log. The next step is to complete the development of an electronic control system and to find a way to scale the process up, so it can be evaluated as a treatment for large numbers of logs on a wharf.

Amping up the joules on a Canterbury University test rig

May offer much more than cooked bugs

FOREST OWNERS ASSOCIATION

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IN THE NEWS

LEARNING TREE CROSSES BORDERS

The forest environment in a box
Viv Le Comte and her students get insights from Maine

An environmental education programme successfully trialled by Taradale Intermediate students may come to a school near you in 2014.

Project Learning Tree uses the forest as a 'window on the world' to give children a better understanding of, and to instil a sense of responsibility to care for, their local environment.

Rayonier Matariki Forests last year introduced Project Learning Tree into Taradale Intermediate, which trialled it with Year 7 and 8 students. Teacher Viv Le Comte immediately saw the benefits for her pupils. So much so, the school is partnering again this year and more New Zealand and American schools are now being assessed to partner up for next year.

"The children got a really good understanding of forests and forestry practices from Rayonier Matariki Forests and the significant role that forestry plays in preserving rare and endangered species," said Ms Le Comte.

In term two the children created an environmental exchange toolbox to send to its partner school, Spruce Mountain Middle School in Maine, USA. The project included maps and information on the Hawke's Bay environment.

Ange Vivian of Rayonier Matariki Forests returned the favour, delivering a box from Spruce Mountain Middle School.

"It was like Christmas morning. The children were really excited. There were letters from the children telling what life is like in Maine, pictures and information about local forests and the animal and plant life, American money and even a Maine car registration plate."

FORESTRY GETTING EVEN GREENER

The international forest and wood products industry is greening its activities. In the International Council of Forest and Paper Association's (ICFPA) 2013 sustainability progress report, it shows members have:

- Reduced greenhouse gas emission intensity by 16% between 2005 and 2011
- Increased the share of bio-energy in their fuel mix by 5 percentage points to 58% since 2005
- Increased by 38 percentage points the number of hectares certified to a third-party sustainable forest management certification system to 50% of the wood supply since 2000
- Increased paper recycling rates by 10 percentage points to 56% between 2001 and 2011
- Reduced sulphur dioxide (SO_2) emissions by 34% between 2005 and 2011.

Since 2006, ICFPA has published a biennial report on its members' progress on social and environmental issues. To read the full report: http://bit.ly/13QQfTj

WOOD PROFESSOR WINS AWARD

Professor Andy Buchanan (pictured) has been presented with a top architectural award for getting timber accepted as a viable material for building multi-storey earthquake-resilient buildings,

NZIA president David Sheppard presented Buchanan with the institute's 2013 President's Award for his contribution to the built environment in New Zealand. The citation said that in the course of his distinguished career Buchanan has worked in structural, earthquake and environmental engineering, as well as fire safety, and is now drawing upon his experience in all these disciplines to develop new timber technologies.

University of Canterbury pro-vice-chancellor Jan Evans-Freeman said Buchanan's work is of national importance and is particularly timely in the context of the Christchurch rebuild.

SOUTHERN MAN JOINS FOA BOARD

David Cormack (pictured) has been appointed to the FOA council, following the resignation of Lees Seymour.

Cormack has been the CEO of Mosgiel-based Wenita Forest Products Ltd since late 2009. A graduate of the University of Canterbury School of Forestry, he has previously held marketing roles with both Wenita and Rayonier.

When not at work, Cormack's interests include triathlon, road and mountain biking, tramping and running. He is married to Kirstin and lives in Dunedin.

FOA AGM

The 2013 Annual Meeting of the Forest Owners Association will be held at the offices of Rayonier/Matariki , 32 - 34 Mahuhu Cres, Newmarket, Auckland at 3pm on Wednesday, 16 October 2013