




## Forestry & green groups sign Accord



 Representatives of conservation, outdoor recreation and forestry groups with a signed copy of the Climate Change Accord. NZFOA president Peter Berg is third from the left and chief executive David Rhodes on the right

FORESTRY, ENVIRONMENTAL AND OUTDOOR RECREATION GROUPS HAVE SIGNED THE NEW ZEALAND CLIMATE CHANGE ACCORD, AN EXTENSION OF THE 1991 NZ FOREST ACCORD.

At a function at the Treehouse in Wellington's Botanic Gardens (the WWF-NZ national office) on 29 October they called for government to adopt stronger and fairer climate change policies. These would include putting a

price on all greenhouse gases in all sectors without delay, and the protection of indigenous biodiversity and natural carbon stores.

Signatories agreed that the Emissions Trading Scheme provided an adequate framework for dealing with emissions, but the government needed to strengthen its application of the polluter-pays principle.

Another concern was that the scheme as it stands could encourage the felling of native scrub that is regenerating to forest, or the planting of pines on pristine tussock lands.

In the original NZ Forest Accord, forest owners agreed not to clear native forests to establish plantations and to protect remnants of indigenous vegetation within their plantations. For their part, conservationists acknowledged the importance of plantation forests as a means of producing wood products on a sustainable basis.

The key policy points of the new Accord are:

- \* Carbon sequestration by forests should be utilised to help New Zealand's transition to a carbon neutral economy;
- \* Wood is a renewable, reusable and recyclable resource that can play a

significant role in the production of energy; and can be substituted for materials that cause greater greenhouse gas emissions;

- \* Government policies must be consistent with the polluter pays principle – be broad-based, equitable, efficient and cover all greenhouse gases in all sectors;
- \* They should have clear, early, time-bound targets that lead to net greenhouse gas emission reductions;
- \* They should promote the retention and expansion of indigenous forests and the replanting and expansion of plantation forests and associated use of wood products to recognise their positive climate change benefits, and encourage the maintenance and enhancement of existing carbon reservoirs and carbon sinks;
- \* They should avoid perverse outcomes such as the loss of indigenous forests or greenhouse reservoirs in other indigenous ecosystems; and should avoid net increases in greenhouse gases;
- \* Be consistent with customary rights and responsibilities of Maori; and with the Treaty of Waitangi;
- \* Be non-partisan and politically durable; and
- \* Recognise the contribution of the post-1990 forests to New Zealand's Kyoto Protocol Commitments.

Signatories are: The Environment & Conservation Organisations of NZ (ECO), Federated Mountain Clubs, Royal Forest & Bird Protection Society, Sustainable Energy Forum, WWF-New Zealand, NZ Farm Forestry Association, NZ Forest Owners Association, New Zealand Timber Design Society, Pacific Institute of Resource Management and the Ecologic Foundation (formerly the Maruia Society).

[More?www.nzfoa.org.nz/index.php?file\\_libraries\\_resources/agreements\\_accords/climate\\_change\\_and\\_forest\\_accord](http://www.nzfoa.org.nz/index.php?file_libraries_resources/agreements_accords/climate_change_and_forest_accord)

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# Climate change policies – from here to where?

Big changes still needed



By NZFOA  
chief executive  
David Rhodes

THE START OF THE NEW EMISSIONS TRADING SCHEME (ETS) ON 1 JANUARY 2008 CHANGES THE LANDSCAPE FOR FORESTRY IN NEW ZEALAND.

The decision to bring forestry in from day 1 is partly explained by the need for the ETS to have an industry with credits trading with industries with excess emissions, even though a 2005 review of climate change policy recommended that agriculture and forestry be brought in to an already existing scheme.

Pressure from forest owners also played a part, with a Cabinet committee observing that retaining the credits “would show little environmental leadership, and would contradict previous cabinet decisions as well as assurances New Zealand has given internationally”.

Carbon trading was never expected to provide anyone with instant riches. With credits come liabilities. Nonetheless, post-1989 forest owners now have the option to participate in this new market.

In this Bulletin we give readers a breakdown of our understanding of what the ETS means for forest owners, assuming the Climate Change (Emissions Trading and Renewable Preference) Bill gets through parliament unscathed. Some may say we should have waited for the detail to be finalised; but with

the scheme kicking in on 1 January we consider it better to share an analysis that may change.

The ETS rules as they apply to post-1989 forests are broadly consistent with their impact on the atmosphere. Unfortunately the same cannot be said of pre-1990 forests.

The penalty for converting these forests to a more profitable use is now hovering around \$20,000/ha – up from an anticipated \$13,000/ha a year ago – a tax on land-use change that is going to wreck some people’s retirement plans. As a 2005 government policy review noted “Should, as is probable, the price of credits rise over time, forest owners may in fact face a substantial capital loss.”

Two-thirds, or 1.2 million ha of New Zealand’s planted forest estate, was first planted before 1990. Where this land is subject to a deforestation penalty, its value will now be diminished greatly.

The problem is that New Zealand has signed an international agreement with this distortion embedded in it. From 2008-2012, New Zealand faces a cost if land is deforested. Sheeting that cost home to individual landowners, when Kyoto rules do not allow those owners to benefit from the carbon sequestered by those trees, is not fair or reasonable.

Land should be used for its highest and best use. While any change in land use should be sustainable, and meet its true costs, we don’t want to stop it – one of the greatest strengths of our primary sector is its ability to respond to changing market demands.

Kyoto was ratified because NZ negotiators expected we would be one of the few countries in the world in credit. Unfortunately this perception meant they accepted some rules for forestry that are very unfair, don’t reflect reality and which create big distortions.

When the “since 1990” rule was introduced at the last minute, the forest industry cautioned that any benefit to New Zealand had been reduced substantially and that the country’s position had



Post-1989 forest owners can participate in carbon trading

been severely compromised. Nonetheless the government ratified.

Canada’s government did the same, yet is now choosing not to count its vast forest reserves. As an Ottawa University law professor recently observed, “This decision doesn’t reflect any problems with Canada’s forests; it reflects the fact that Kyoto has dumb rules for counting carbon changes in forests”.

In contrast, Australia held out to the very end and managed to secure article 3.7 which allowed them to incorporate emissions from land use change. Having secured this major concession as well an emissions target for 2012 of 8% above 1990 levels, John Howard’s government chose not to ratify anyway.

The current rules for sinks only hold for commitment period one (CP1 2008-2012) and any future provisions must be negotiated, presenting an opportunity to create a more realistic regime. Given our common interests, Australia’s hard ball approach may be no bad thing for New Zealand in the negotiations for CP2 (2013-2017).

Understandably perhaps, some argue that forestry should be removed from the protocol. If forests absorb and then eventually release carbon, then why not leave them out and remain neutral after 2012?



Pre-1990 forest owners will see their capital eroded





In practice, this is unlikely to happen. There is strong international concern about the loss of native forests in developing countries and growing interest in rewarding those countries for retaining their forests (an interesting contrast with the deforestation tax).

Alternatively, only planted forests could be removed from the protocol. But if this happened, public awareness of the environmental benefits of forestry and wood products would fade. Climate change has provided an opportunity for forestry to shine.

The preferable solution is to include forestry, along with rules that encourage forestry investment and recognise the role of wood products.

This is not to say that our government does not recognise the need to expand forestry or the benefits of wood. The opposite is true. The problem is that its policies which promote the industry are undermined by its treatment of pre-1990 forestry.

Between now and 2012, the NZFOA will channel a lot of energy into developing and promoting positive and realistic plantation forestry policies for CP2.

The first challenge, however, is the Bill now before the Select Committee. Your association will be seeking changes to reflect what is good for forestry and for New Zealand in the long-term, even if this means departing from some of the flawed forestry policies in the Kyoto Protocol and some short-term cost. It is to be hoped that reason will prevail.

## NZFOA

### Forest entry ban lifted

To show good faith, the NZFOA has recommended to members to lift a ban on government officials entering privately owned forests to measure how much carbon dioxide trees are taking out of the air.

The ban was recommended in June 2005 in response to the government's proposed climate change policies.

The government has since abandoned its plans to nationalise the carbon in Kyoto forests. However it hasn't changed its plans to tax owners of non-Kyoto forests if they don't replant following harvest.

## NZ Wood TVCs near

NZ WOOD – THE FORESTRY AND WOOD MARKETING INITIATIVE – HAS SHOT TV COMMERCIALS IN AND AROUND AUCKLAND AND ROTORUA.

Forests and forestry will feature strongly in the commercials, along with the environmental themes which are prominent in the current print advertising campaign.

The focus for NZ Wood in 2007 has been building a platform of industry and specifier awareness. This kicked off with a road show which was received very positively in 15 centres up and down the country, with roughly 800 people attending, including a bumper crowd of 150 in forestry stronghold, Rotorua.

More recently NZ Wood has visited and presented to countless industry and specifier organisations, including the NZFOA, WPA, Farm Forestry Association, Douglas-fir Association, BOINZ, IPENZ, Master Builders and many more.

Last month, NZ Wood undertook a six centre tour with the Architects Association as part of their sustainability seminar series. The feedback from architects, like most others, was great.

The unveiling of the TV commercials in February will mark a significant escalation of the programme, taking it directly to consumers.

It's an important step. The commercials will be supported by a print and magazine campaign as well as by joint promotions with merchants.

The challenge for NZ Wood is to build on the goodwill and positive intent generated by the roadshows and presentations by providing manufacturers and specifiers, such as architects and engineers, with the tools and information to choose wood more readily.

The NZ Wood website – [www.nzwood.co.nz](http://www.nzwood.co.nz) – is critical to NZ Wood's



Stem shot: Getting up close to a radiata during filming

information strategy. The corporate and campaign sites are already up and running, and receiving plenty of traffic and feedback.

However, these sites will pale alongside the resources website, which aims to become a central repository of technical wood information for all users, leveraging off the excellent Timber Design Society website. Getting the website's design right, making sure it is user-friendly and populated by the best information is extremely important.

NZ Wood has put together an advisory group, with a mixture of industry people, architects, engineers, builders and merchants to guide its construction. The resources website will go live in mid-2008. Look out for it.

And if you haven't seen our print adverts yet, you can find examples on [www.nzwood.co.nz](http://www.nzwood.co.nz). How about checking them out now?

## New faces at NZFOA

THERE WILL BE TWO NEW FACES AT THE NZFOA OFFICE IN THE NEW YEAR.

Glen Mackie, currently product development team leader at FITEC, will be taking up the newly-created position of senior analyst.

Diane Davidson will be the new office manager, replacing Megan Best who is returning to Eire after a year's OE in our part of the world. Best plans to continue with university study when she returns home.

Davidson has extensive experience as a secretary and administrator, especially in legal and publishing roles.

The office reopens after the summer break on 9 January.



# Kyoto and You

THE CLIMATE CHANGE (EMISSIONS TRADING AND RENEWABLE PREFERENCE) BILL IS BEFORE PARLIAMENT NOW. IT WON'T BECOME LAW UNTIL AUTUMN 2008. DRAFT REGULATIONS FOR THE FORESTRY PART OF THE SCHEME WON'T BE AVAILABLE UNTIL 1 MARCH (CARBON ACCOUNTING STANDARDS) AND 1 JULY (FOREST CARBON CALCULATORS).

In the meantime – on 1 January 2008 – forestry will enter the NZ emission trading scheme (ETS).

It's important that all forest owners come to grips with what it might mean for them. This feature is a summary, in lay language, of what the NZFOA understands the main points mean.

During the coming months the association will be active on members' behalf lobbying to have aspects of the Bill modified so they are fairer and less onerous for forest owners. The association welcomes your feedback, questions and areas of concern. The Bill can be downloaded from [www.climatechange.govt.nz](http://www.climatechange.govt.nz)

## What is a tree?

A forest species is a tree species capable of reaching 5 m in height in the place where it is growing.

## What is forest land?

Forest land is at least 1 ha of land that at maturity will have tree crown cover of more than 30% on each hectare. The trees will be a forest species, growing either in open forest or in closed forest formations covering a high proportion of the ground.

It includes areas which are temporarily unstocked as a result of human activity or natural causes. It does not include areas where tree crown cover at maturity is less than 30 m wide, such as a shelter belt, unless the area is part of other forest land.

## I own a forest first planted before 1990

How can I benefit from Kyoto?

- On 31 December 2009, the government will be allocating pre-1990 forest owners 21 million NZ emission units (NZUs) for the first Kyoto commitment period (2008-2012).

This may sound a lot, but it is thin gruel. First deduct concessions to small block owners (see below), then divide the balance among 1.2 million ha of pre-Kyoto forests.

If you plan to deforest (eg change land use after harvest), these units could be used to help offset your new carbon liabilities. But assuming you are allocated 15 NZUs/hectare, you will need the allocated units from about 50 ha to offset your liabilities for converting 1 ha to a non-forest use.

If you don't intend to deforest any of your land ever, you can sell your allocated NZUs on the open market. At \$25 each, this would earn you \$375/ha.

A further allocation of 34 million NZUs may be made to owners of pre-1990 forest land between 2013 and 2024. After that there will be nothing.

## What are my liabilities?

- Status quo: If you continue indefinitely with a cycle of forest growing, harvesting and replanting on your existing forest land, Kyoto won't greatly cramp your style. But if you clear an area and leave it unplanted for 4 years or more, you will be deemed to have deforested that land.
- Getting out small-time: You may deforest 2 ha or less in a 5-year period without any liability or without seeking permission. If you own more than 2 ha and less than 50 ha in total pre-1990 forests, you may deforest this area without liability if you first seek an exemption. This must be granted if you provide the right information and sign a statutory declaration that your total holdings are less than 50 ha. Applications for exemptions must be made between 1 July 2008 and 30 June 2009.
- Getting out big-time: If you plan to deforest more than 2 ha and own 50 ha or more, you must register as a participant. This means you will need to calculate how much carbon is locked up in the trees, and then cede an equivalent number of NZ emission units (NZUs) to the Crown. An NZU is equivalent to 1 tonne of CO<sub>2</sub> (emitted or sequestered).

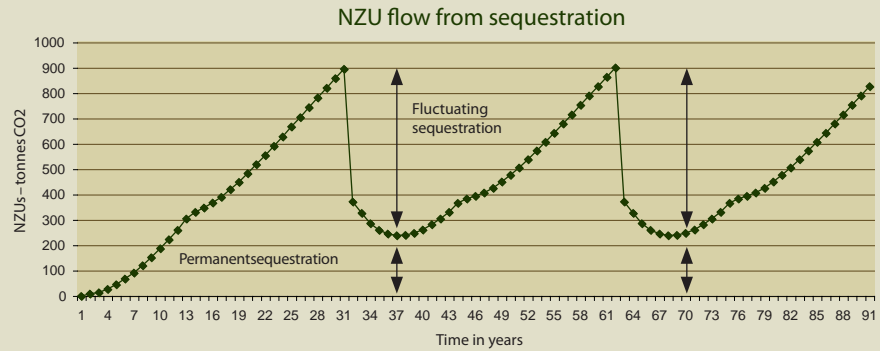
You can settle using NZUs granted to you by the Crown and/or NZUs bought on the open market.

The cost of this transaction will be substantial – a likely minimum of \$20,000 a hectare (\$25/t NZU x 800





If a new forest is replanted following harvest, the sequestered carbon never goes back to zero. The different risk profiles of 'permanent' and 'fluctuating' ('above-ground') carbon need to be taken into account before considering trading in NZ Emission Units. Credit: Steve Wilton, Forest Enterprises Ltd



t/ha). In addition, the IRD proposes that this should be a capital transaction – equivalent to more than \$28,000 in forest revenue net of costs at a tax rate of 33 cents in the dollar.

But my forest land was replanted only 5 years ago ...

- Bad luck. The Bill says you have to treat the 'emissions' from the deforestation of trees 8 yrs old or younger as if they were the same age class as the last group of trees you harvested from the block. If that previous group was 8 yrs old or younger, you have to calculate the emissions as if the trees were 9 yrs old.

I own 2 ha in my own name and have 60 ha in a family trust. Can I convert the 2 ha without incurring a liability?

- If you have a 25% or greater share in, or effectively control, the trust (or for that matter a partnership, or company) you are deemed to be an associated person. If so, you have to include the trust's holdings with your own when calculating whether you can convert your 2 ha or not. This means that either you or the trust – but not both – will be able to deforest 2 ha without liability.

And don't think about subdividing the 60 ha or splitting it among beneficiaries. The under-50 ha exemption can be claimed only by the land holding entities existing on 1 September 2007.

When I replant, does the forest need to be in the same species and the same spacing as the last rotation?

- No. See the definitions of a tree and forest above. It also appears – depending on the final legislation (especially the regulations) – that you may be able to move to a wide spaced agro-forestry regime, so long as 10 years after harvesting, exotic species have reached 5 m in height

and have 30% canopy cover on each hectare. The same requirements apply to native species, but after 20 years.

Will most of my land be locked into forest forever unless I formally deforest and pay the massive liabilities?

- Yes, unless there is a change in the NZ forestry rules (which tend to mirror Kyoto rules), or unless a future government changes the law, as promised by National and the Maori Party. Also the Climate Change Bill allows for the role of forestry in the ETS to be reviewed every 5 years. Deforestation liabilities could be removed by Order in Council, so long as the integrity of the scheme is not undermined, and costs don't exceed benefits.

### Own a forest first planted on non-forfeit land since 1989.

How can I benefit from Kyoto?

- Until 31 December 2009 you have the right to register as a participant in the ETS. This will entitle you to an annual allocation of NZUs equivalent to the amount of carbon sequestered by your trees from 2008-2012. You can sell your NZUs to invest in something else or to pay off debt, or you can keep them and possibly use them as security for borrowing.

But – and this is important – if you opt to sell any NZUs (as opposed to banking the credits) then you will need to surrender an equivalent number of NZUs when your forest is eventually harvested.

That sounds risky

- Yes, there are risks involved. You should seek informed advice before getting involved in carbon trading.

But first, it is important to understand that because of the nature of carbon sequestration these risks are influenced by the age profile of your Kyoto forests.

In the first 10 years of the growth of a new forest, a large part of the carbon is stored in the ground (in duff, soil and root systems etc). This makes up about one-third of the carbon stored in a mature forest. Following harvest and replanting, as roots and stumps rot, this stored carbon declines to about 240 t/ha, before climbing again as the new crop grows. This carbon can be termed permanent sequestration and NZUs granted for this will not have to be surrendered at harvest if the forest is replanted.

The balance of carbon in the forest is tied up in stems, limbs, foliage etc which is either removed at harvest or decomposes soon afterwards. NZUs granted for this above-ground sequestration must be surrendered at the time of harvest even though most of the carbon in wood used in construction is locked up semi-permanently.

Most Kyoto forests in New Zealand will be 10 or more years old during CP1, so most of the carbon they sequester from 2008-on will need to be surrendered after harvest.

For younger forests (<10 year old in 2008), the ETS should greatly improve the profitability of forestry, providing useful income streams from permanent carbon sequestration from years 4-10.

- There is no point in selling above-ground NZUs if you believe carbon prices may grow faster than an alternative investment, or the accrued cost of your borrowings. On the other hand, some believe the world will become less reliant on carbon in future decades as oil reserves run low and new technologies are developed. If this happens, the carbon price may peak and then drop, along with demand for emission offsets. It's your decision what to do!



- The lowest risk option may be to register as a participant, hold onto your NZUs and keep your powder dry. If you sell the forest in the future, the new owner may well see them as an asset. They also cover you against the risk that a future government may change the rules and demand NZUs when you harvest, even though you originally opted not to be a participant.
- Because NZUs not claimed in a given year are likely to be auctioned off or reclaimed by the Crown, you won't be able to decide in (say) 3 years time to claim NZUs for the years before you registered as a participant.
- As a participant you will need to have a holding account and measure carbon removals (through sequestration) and emissions (through deforestation) and make a regular statistical return to the Crown. However the cost of this may not be high. Sequestration models for the major species, climate zones and soil types are being developed.

But I'm just a small grower

- Emission Unit trading is best suited to growers with forests in multiple age classes (and/or species), as the NZUs surrendered when a block is milled will be more or less offset by NZUs gained through sequestration in other blocks.

Smaller growers have the option of not participating, or joining with others in a consolidated group of two or more forest owning entities with different age classes or profiles. This enables forests under different ownership to be treated as a single entity for emission accounting purposes.

Do I have to replant after harvest?

- As a post-1989 forest owner your liabilities end when you have harvested a forest and paid back the NZUs allocated to you during the growth of that forest.

You can then replant, plant in another location, or not. It's your choice.

Can I bring land that was previously in a pre-1990 forest into the ETS?

- Yes, but the area would be deemed to have been deforested. Once you have ceded NZUs to the Crown for the area involved, you can include it in the ETS as if it was a post-1989 forest.

## Green Star needs more work

But benefits are already flowing through for those with FSC certification

THE FOREST INDUSTRY IS WORKING WITH THE PROMOTERS OF THE GREEN STAR BUILDING ACCREDITATION SYSTEM SO IT BETTER RECOGNISES THE ENVIRONMENTAL ATTRIBUTES OF WOOD.

Green Star NZ is an environmental rating system developed by the NZ Green Building Council (NZGBC), the local affiliate of the World Green Building Council.

To get a Green Star rating, buildings are assessed against eight environmental impact categories and from 1 July 2008 all new government office buildings must have a 4 Star or higher rating.

The problem with this from a forest industry point of view, is that Green Star doesn't assess the embodied energy or CO<sub>2</sub> emissions from the manufacturing of common construction materials. Nor does it include environmental impacts at all stages of a product's lifecycle, such as the CO<sub>2</sub> emissions from transport. This leads to perverse outcomes.

For example, the energy used in mining and smelting does not detract from the Green Star ratings for aluminium and steel. Conversely, wood gets no credit for its main source of embodied energy – sunlight – nor the fact that most wood wastes can be used as carbon-neutral biofuels.

A 1999 study by Canterbury University professor Andy Buchanan found wood buildings required much less energy and resulted in lower carbon emissions during construction than buildings made of brick, aluminium, steel and concrete.

He and co-author Bry Levine concluded that a 17 per cent increase in wood usage in the NZ building industry could result in a 20 per cent reduction in carbon emissions from the manufacture of the materials used in building construction.

Another complication is that wood is ineligible for a Green Star rating unless it is sourced through the Forest Stewardship Council chain of custody. This is not a issue for major NZ radiata and Douglas-fir growers, most of whom are FSC certified, but it is for appearance-grade timbers sourced from farm foresters, few of whom are certified.

For these reasons, there are concerns that the government has hitched its wagon to one building accreditation system, Green Star, and through that, one forest certification scheme, FSC.

Forestry minister Jim Anderton agrees that a single certification system should not have a monopoly, but points out that Green Star is currently the only building rating tool available. Also, the government wants the building code – now being reviewed – to require designs for new buildings to include ratings for CO<sub>2</sub> emissions from embodied energy and life-time energy use, which will help promote timber as a building material.

On the certification front, NZFOA environmental committee chair Peter Weir says FSC is now getting real traction in some high value overseas markets where some building specifiers require suppliers to have FSC chain of custody. Other schemes like PEFC just don't have this level of recognition.

"Growing demand for certified timber means FSC is starting to mean something for certified NZ forest owners and mills after many years of lacklustre demand," Weir says.

Still, forest owners want embodied energy and full life cycle assessment of all building materials to be incorporated into Green Star ratings. Carolyn Hodgson and Per Nielsen's work at Scion on the forest industry's ecological footprint and planned work with MAF on carbon footprints has the industry well positioned in this area, Weir says.

In addition, Prof Buchanan's team at the University of Canterbury is working with MAF and Dr Barbara Nebel at Scion on life cycle assessment of multi-storey timber buildings. It is intended that this work will lead to the development of a simple CO<sub>2</sub> calculator for determining the carbon footprint of new buildings, in a form suitable for inclusion in Green Star.

# Fuel tax questions

ROADS HAVETO BE FUNDED – AND THERE IS AN URGENT NEED FOR TRAFFIC CONGESTION TO BE EASED ON MAJOR ROUTES – BUT A REGIONAL FUEL TAX MAY NOT BE THE ANSWER.

“We have no objection in principle to such a tax. But we have big concerns about likely compliance and administrative costs – especially rebates for off-highway vehicle use,” says NZFOA chief executive David Rhodes.

“Forest vehicles and logging trucks do a lot of off-road mileage for which no tax should be levied, but the Ministry of Transport admits they are struggling to come up with a simple, fair and cost-effective mechanism for rebates.”

He says such a mechanism would be best levied on a similar basis to road user charges, so drivers could use one formula for calculating both rebates.

The tax, which will be no greater than 10 c/litre of petrol or diesel, is to be split between roading and public transport.

“The costs of implementation are likely to exceed the revenue generated in many regions. Already there are indications that Auckland and Wellington

are the only regions that will impose them,” Rhodes says.

“If taxes and tax rates vary from region to region it will make it extraordinarily complex for firms reimbursing employees and contractors for transport services traversing more than one region.

“This added cost will not appear in regional council revenue accounts, but will be a very real burden for the forest industry.”



Regional fuel taxes are likely to cost more to collect than the revenue they generate



# Forest survey praised

THE NZFOA FOREST HEALTH SURVEILLANCE (FHS) SCHEME HAS BEEN PRAISED BY TWO INDEPENDENT EXPERTS HIRED TO ASSESS ITS EFFECTIVENESS.

Andrew Liebhold, a USDA Forest Service research entomologist and Brenda Callan, a Canadian Forest Service research mycologist, say the scheme is well-conceived, valuable to the NZ forest industry and generally well executed.

It “exceeds the sophistication level attained by forest health surveillance programs elsewhere in the world”, they say in their report. They also praise the extent to which the FHS scheme and MAF’s biosecurity activities complement each other.

Invasions by potentially catastrophic pests are a significant and increasing threat and they say the programme is well-designed to detect new arrivals in time such that eradication may be feasible.

They recommend the scheme, which was initiated 51 years ago, should be continued with few modifications.

Suggested modifications to be considered by the NZFOA include increasing the number of FHS high-risk sampling sites from the current 39 and ceasing sampling at randomly-located ground plots.

A network of attractant traps for detecting wood-boring insects is proposed. Ideally this would consist of traps in high-risk locations coupled with traps in commercial forests.

NZFOA forest health administrator Bill Dyck says the report has yet to be considered by his committee or the NZFOA executive, but he expects members will be heartened that independent experts have given the FHS scheme their endorsement.

New Zealand’s high dependence on a single plantation species, *Pinus radiata*, makes it particularly vulnerable.

“Exotic tree plantations can be highly productive when they are grown in regions that are distanced and maintained free from their natural pests. Should incursions and subsequent establishment of pests occur, however, [they] are exposed to major risks of either chronic or catastrophic losses,” Liebhold and Callan observe.

“Therefore, detection of pest incursions must continue to be a critical component of New Zealand’s overall biosecurity strategy.”

They also note there are large portions of New Zealand where no surveillance is conducted at all and recommend that MAF works with the Department of Conservation and with farm foresters to find ways for them to become involved.

While Liebhold and Callan were not hired to do a cost-benefit analysis, they consider such an exercise would be difficult given the many unknowns. But they say the intensity of drive-by and aerial surveys could not be reduced without severely detracting from their ability to detect pest incursions.

If the industry wants to reduce the costs of surveillance, they say the only current option would be to reduce sampling from once a year to (say) once every two years. On the downside, this would result in decreased sensitivity – possibly resulting in a failure to detect an incursion early enough to achieve eradication.

NZFOA chief executive David Rhodes says forest owners, through the FHS scheme make a significant financial contribution toward preventing new pests and diseases from becoming established.

“Such a positive assessment of their efforts is very timely – especially given that we are currently in discussions with government about an appropriate funding model for biosecurity.”



Asian gypsy moth. Early detection of a pest like this could prevent a catastrophe





## Chilean disease watch

NZ FOREST SCIENTISTS ARE KEEPING A CLOSE WATCH ON A NEW DISEASE OF PINUS RADIATA WHICH HAS EMERGED IN CENTRAL CHILE.

NZFOA forest health administrator Bill Dyck says it appears that Daño Foliar del Pino (DFP), is an endemic species of Phytophthora which has adapted to radiata. The new species, provisionally named Phytophthora pinifolia, is associated with the death of needles in autumn, followed by defoliation of trees. Trees normally recover the following season but if they are reinfected, mortality rates can be high.

Scion scientist Lindsay Bulman says, "like many potential biosecurity risks to our forests, we don't know how DFP would behave if it became established in New Zealand. However, it is likely that it would cause damage to plantation forests growing in areas prone to prolonged high humidity and rainfall."

Scion has been communicating with Chilean Authorities about DFP for almost two years, culminating in an industry-funded visit to Chile by two plant pathologists, Bulman and Rebecca Ganley in October 2007.


Bulman says they gained first-hand up-to-date knowledge of the disease and, as importantly, reinforced links and information exchange protocols with Chilean researchers and officials.

"We have provided NZ forest health surveillance experts with an information sheet and they are actively looking for signs

of DFP in NZ forests and the Scion diagnostics lab is routinely testing any potentially infected material that comes in. Our researchers are also producing a report on the current state of knowledge about the disease, along with risk analysis and research recommendations for the NZ industry."

More?  
Lindsay.Bulman@ensisjv.com



 Radiata needles showing the symptoms of DFP

## Olsen building walks the talk

PFOLSEN, ONE OF THE COUNTRY'S LARGEST FOREST SERVICE PROVIDERS, HAS BUILT A NEW HEAD OFFICE IN ROTORUA WHICH TRUMPETS THE MESSAGE THAT WOOD IS GOOD.

Located at the Te Papa Tipu Innovation Park the environmentally friendly building incorporates suspended timber floors, as well as timber wall framing and cladding. High-traffic floors in the entrance lobby and the staff room have been treated with the Ligna hardening process.

Chief executive Peter Clark says all timber was from third-party certified plantations.

"Our office building is putting our support for NZ Wood's message into action. The high use of wood in commercial construction is not only good for sustainability, but it is also economically viable."

## The Future is here

FUTURE FORESTS RESEARCH LIMITED (FFR) IS NOW A REALITY.

A partnership between forest owners and Scion Research, FFR will drive the research needed to improve industry productivity, product quality and international competitiveness.

The principal investor is the Foundation for Research Science and Technology, with support of more than \$1 million from forest owners, including \$300,000 from LIRA.

"Like any industry we must continue to innovate in order to compete with other land uses, other forest producers around the world and with competing building materials," says chief executive Russell Dale.

FFR is based on the five research co-operatives which have driven forest production research for the last 20 years. In addition, research is being expanded into harvesting, alternative species and environmental research.

The four research themes are radiata management, diversifies species, harvesting and logistics, and environmental and social. While radiata makes up more than 95 per cent of the New Zealand industry, other aspects of forestry are

being studied because of the increasingly important role forests play in sustainable land use, protecting water quality and in climate change.

Research into harvesting and logistics has also been re-activated with the support of industry funding. Harvesting and transport are major costs for forest owners and it is important to find ways to improve productivity, especially on steep terrain.

"Research into intensive forest management systems recently received a significant funding boost from FRST with \$18 million committed over six years. Along with industry co-funding, this provides the stability to build research capability in this area and to initiate new research into areas like tree quality improvement and remote sensing," Dale says.

The FFR offices are located in the new PF Olsen Ltd office on the Scion campus, Rotorua.

Details of the FFR structure and names of board members were published in the winter 2007 edition of the Forestry Bulletin.

### Who's who at FFR?

Chief Executive: Russell Dale

	Interim Theme Leader	Scion Programme Manager
Radiata	Roger Kay	Graham West
Harvesting	Geoff Manners	Hamish Marshall
Environment & Social	Kit Richards	Peter Clinton
Diversified Species	Patrick Milne	Heidi Dungey

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The New Zealand Forestry Bulletin is published by the NZ Forest Owners Association, 85 The Terrace, P.O. Box 1208, Wellington. Tel 04 473 4769, fax 499 8893, email nzfoa@nzfoa.org.nz, web www.nzfoa.org.nz Please acknowledge the NZFOA as the source when republishing stories or abstracts from the Bulletin. Publication date: 21 December 2007