



Forestwood a great success



Industry presidents get together at Forestwood 2009
David Anderson, WPA; Jacob Kavavala, FICA; Peter Berg, FOA; Patrick Milne, NZFFA; and Doug Ducker, Woodco

THE 200-PLUS DELEGATES WHO ATTENDED THE 2009 FORESTWOOD CONFERENCE IN NELSON IN OCTOBER CAME AWAY INFORMED, ENTERTAINED AND IN MANY CASES, FROZEN TO THE BONE.

The conference, the first of its kind in recent memory, brought together forest owners and wood processors in a forum that addressed important shared interests.

Day one was a sit-down conference session at Seifried's Winery. Day two

was a field trip that included steep hill logging demonstrations by Kelly Logging in what turned out to be a real test of operators and equipment – freezing rain and high winds, improving to drizzle. In the ironical words of the tour hosts, “welcome to sunny Nelson”.

Conference speakers strongly emphasised market trends and innovation in a carbon-constrained world, with biofuels and enviro-friendly buildings taking centre stage.

Time and again, speakers touched on common themes – competition for land



FOA board member Charlie Schell wards off the atrocious weather at a demonstration of steep country machine-felling by Kelly Logging in Robinson's Block, Nelson Forests

for food, fibre and energycrops; competition from other producing countries; and the growing focus of consumers and marketers on ethical products, especially those with a low carbon footprint.

FOA president honoured

FOREST OWNERS ASSOCIATION PRESIDENT PETER BERG HAS BEEN HONoured BY THE COMMONWEALTH FORESTRY ASSOCIATION.

Berg was presented with the association's 2009 South East Asia and Pacific Regional Award of Excellence by minister of forestry David Carter at the Forestwood Conference in Nelson.

Reading the award citation, the minister said Berg was an exceptional example of outstanding leadership.

“He has been a champion of forestry as a member, chairman and director of many New Zealand forest industry associations. His efforts have extended to administration, co-ordination, planning and strategy development, with a focus on community, environmental, educational and economic interests.”

Taken by surprise by the award, which was greeted warmly by conference delegates, Berg said there was no greater honour than to be acknowledged by one's peers.

The citation says Peter Berg, as a professional forester, has specialised in harvesting and marketing, the development of quality systems and plantation forestry certification. He has wide experience in the international marketing and trading of forest products ... in China, Japan, India, the United States and several Southeast Asian countries.

He has also been involved in forestry work in Samoa under the NZ bilateral aid programme and has wide experience in the international marketing and trading of forest products. Berg has a strong personal interest in forest conservation and in the role of indigenous species in plantation forestry. He has also co-authored and published two books on NZ forest history.

He is an officer of the NZ Order of Merit, lives in Glendowie, Auckland and has a small forest near Port Albert on the shores of the Kaipara Harbour.

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Separating out what's bankable



By FOA
chief executive
David Rhodes

**LAST MONTH'S FOREST-
WOOD CONFERENCE
ENCOURAGED US ALL TO
LIFT OUR EYES ABOVE
THE ROUTINES OF OUR
DAY-TO-DAY WORK.**

We don't need a helicopter view to tell us that profitability for both growers and processors is well below that needed to ensure the long-term viability of the sector. But if we gain a little more altitude we can pick out emerging trends that appear promising.

In the last *Bulletin* I discussed the potential of wood pellets as a new source of income for forest owners and wood processors. More detail appears in an article on page 7 of this edition.

Biofuels from sustainable sources have not had much of a profile in New Zealand, but that is likely to change as everyone comes to realise the significant challenges involved in meeting the country's Kyoto emission targets.

Meanwhile, growing populations and increased prosperity are driving fundamental changes in markets and public policies around the world, according to Gary Bull, University of British Columbia.

Increased demand for animal protein is running headlong into steady increases in demand for bio-fuels and sustainable building materials. He points to projections that show the world will be about 250 million ha short of productive land by 2030 and predicts a crisis as competition for land heats up.

"The EU has a huge deficit of renewables if it wants to reach its 20% target by 2020 – although that's a big if. China's wood demand is soaring. It has a 150 million m³ deficit and is driving world demand for logs."

All this sounds reassuring for forest owners, except that similar big picture equations have underpinned past promises of forest export prosperity. Many have turned out to be illusory.

Investors will therefore be looking closely at the specifics of business proposals involving forest-based biofuels. As for planting carbon forests, most

potential growers will also be keeping their cheque books locked away while the current lack of balance and certainty over future rules remains.

Planting carbon forests is not for the faint hearted, especially if the ETS exposes land owners and investors to unknowable returns and open-ended and potentially ruinous liabilities.

While sustainable biofuels and carbon forestry are the focus of much attention, we must not forget the production of wood fibre – for which there is assured demand, but not necessarily at an economic price for the grower.

Relying on a looming worldwide shortage of land and resources to lift all boats, including our own, is not a cred-

of the smartest minds in the industry over several decades. Yet despite a few celebrated success stories, most of our products are still sold into price-sensitive commodity markets. Changing this harsh reality remains the industry's major challenge.

Carle advises that we need to be better than anyone else in everything we do if we aim to meet that challenge. That means having a strong vision and long-term policies; diversified clones, species and market niches; increasingly adding value at home and in partnerships overseas; and building on the *NZWood* marketing campaign.

In the last four or five years the industry – with government support

– has embarked on research and marketing initiatives that I believe tick most of Carle's boxes. The *Solid Wood* initiative, profiled on page 5 of this issue, is a good example – its outcomes are credible and hold great promise of achieving a worthwhile return for all involved in forestry and wood processing.



Biofuels and carbon forestry hold great promise

But until New Zealand has an ETS that is fair to all parties and doesn't expose investors to unacceptable levels of risk, uptake is likely to be slow

ible strategy. In the global context, New Zealand is tiny, with 1% of the world's planted forest and 2% of plantation wood production. This means that we will always be bested and undercut in commodity markets by the actions of other players. Also, as the FAO's Jim Carle points out, our dominant species, radiata, is widely and increasingly being planted by competing countries, many of which are closer to markets and have lower costs of production.

Converting our fibre into sought-after raw materials and added value products for which affluent consumers will pay a premium has exercised some

carbon forestry also hold great promise, but until the smoke has cleared and New Zealand Inc has committed itself to an ETS which is fair to all parties and doesn't expose investors to unacceptable levels of risk, uptake is likely to be slow.

The industry's strategy of taking *NZ Wood* into the next phase – supporting the use of wood in wider applications, working with like-minded industry groups overseas and developing a quality brand mark – remains eminently sensible and warrants the wholehearted support it has enjoyed from all sectors of our industry.



ETS still holds too much uncertainty

NEW ZEALAND WILL SOON HAVE AN EMISSIONS TRADING SCHEME (ETS) THAT IS MEANT TO ENCOURAGE THE PLANTING OF NEW CARBON FORESTS.

But in its current form it still contains much policy uncertainty and will expose many investors to unreasonable risks. For these reasons, new planting levels are likely to be lower than the government needs to meet its Kyoto obligations.

Also we could see pulp and paper mills and large bio-energy plants having to pay emission charges for some of their emissions from burning wood waste – a carbon-neutral biofuel – a move that has left many in the industry shaking their heads in disbelief.

Under the ETS, owners of new forests who want to take part will be granted NZ emission units (NZUs) – commonly known as carbon credits – for the atmospheric carbon dioxide (CO₂) locked up in their forests as they grow. They then have the choice of ‘banking’ or selling them.

If the forest is grown for wood fibre as well as for carbon, the forest owner must – following harvest – return some or all of these NZUs. If the forest is replanted, only the NZUs for the above-ground portion of the crop will need to be refunded. If the forest is converted to a non-forest use, all the units need to be refunded.

There are big investment risks involved. First, it is impossible to know what the price of carbon or wood fibre will be at harvest 30-90 years hence. Second, the owner is required to refund NZUs if a forest is destroyed or damaged by pests or disease, fire, wind, volcanic eruption or other misadventure.

These latter risks will have their biggest impact on those who own small forestry blocks. Larger forest owners can spread their risks across regions and because they have forests in multiple age classes, their NZU refunds at harvest will to a greater or lesser extent be offset by the NZUs generated by their growing forests.

Most individual investors, particularly sheep farmers with erosion-prone land, have none of these advantages and many are short of cash. A new forest has big upfront costs and doesn't start storing significant quantities of carbon (and generating an income) until the trees are 6-7 years old.

To solve these issues, the FOA wants the government to introduce two schemes that would be funded by with-

holding a small proportion of the NZUs earned by those taking part. One would insure against force majeure risks. The other would provide participants with an income from day one, by averaging the number of NZUs expected to be generated over the life of a forest and granting them annually, on the condition that the owner replanted following harvest.

“Given that these initiatives won't cost the taxpayer anything, we can't understand why the government has not run with them,” says FOA chief executive David Rhodes.

“Individual investors and farmers have funded most new forest plantings in recent decades and they are the people who we would expect to invest heavily in carbon forestry if the structure of the ETS is fair, rational and doesn't expose investors to unreasonable risks.”

A major concern for forest owners large and small is the signal from government that NZUs may not be tradable outside Australasia if the government aligns the NZETS with the proposed Australian Carbon Pollution Reduction Scheme.

The ability to sell NZUs at the world carbon price is a critical factor for anyone planning to invest in carbon forestry.

“If forest owners are limited to selling on the Australasian market, the price of their NZUs will be determined only by the demand from emitting industries in Australia and New Zealand for their

credits. Given that major emitters are being featherbedded for the foreseeable future, there will be little demand for NZUs and their value will be well below the world carbon price,” says Rhodes.

“Since forest owners will have to pay the full world price of emissions at harvest, why would they accept anything less than the full market price if they sell?”

Rhodes also points to unjust liabilities imposed on those who own forests planted before 1990. No pre-1990 forest owners can convert their land to another use without incurring huge deforestation emission penalties. Nor can they earn credits for the carbon their forests have stored since 1990.

“The government has been planning to pay forest owners token compensation for this, in two instalments – with the majority being paid after 31 December 2012. But it has now signalled that it might not pay this second instalment if the international agreement that replaces Kyoto allows for harvested pre-Kyoto forests to be ‘offset’ – replanted on a new site.”

He says this compounds the injustice, as even with off-setting, the forest owner would still have to finance the re-establishment of forest infrastructure on a new site, and that site would still have a permanent deforestation liability attached to it.

Government is now looking to compensate some Maori interests because of

... continued page 6



One man's waste is another man's biofuel

The government is so far showing little sign that it wants industry to tap this huge green energy source



De Freitas dispels doubts

ANY LINGERING DOUBTS ABOUT THE CERTIFICATION OF PLANTATIONS HAVE BEEN DISPELLED BY FOREST STEWARDSHIP COUNCIL (FSC) EXECUTIVE DIRECTOR ANDRE DE FREITAS.

Speaking at the Forestwood Conference he said plantations had been included in the FSC since it was set-up in 1993 and there was now growing recognition of the importance of plantations in reducing the pressure on natural forests.

Plantation forests can also provide social, economic and environmental benefits in their own right, he says.

“With global trends of population and economic growth there is a strong case for higher productivity. More intensive production systems, such as plantations, are and will only become more important in supplying the world’s demand for renewable products.”

At the same time, he points out, intensive production has a higher risk of negative social and environmental impacts. Plantations need to be well managed to ensure these impacts are properly taken into account.

Plantations make up only 8.4% of the FSC certified forest area, versus semi-natural forests which make up 34% and natural forests, 57.6%. The biggest areas of FSC certified forests are in Canada, Russia, the United States, Sweden, Poland and Brazil.

In recent years, the FSC has put more effort into promoting its brand values to consumers. This is reflected in growing consumer awareness and the procurement policies of government agencies and private businesses.

This in turn is being reflected in a growing demand for certified tissues and packaging, the adoption of green building systems and legislation to combat the trade in products from illegally harvested forests.

The FSC’s plantation standards are now being reviewed, to ensure that plantations comply with the council’s mission of promoting responsible forest management – taking into account social, environmental and economic factors.

“Certification is evolving,” says de Freitas. “We have to find ways to manage scale, impacts and intensity. As a rule the higher the intensity the stronger the effort that needs to be made in preventing, mitigating and offsetting environmental impacts.”

In line with world trends, the council is exploring how best to incorporate carbon into certification. New Zealand is playing an important part in this,

with FOA chief executive David Rhodes appointed to the FSC’s international forest carbon working group. FOA environmental chair Peter Weir has already participated in the first round of discussions.

There is a wish to see forests managed to provide the most biodiversity benefits at a landscape level. Water management – how to manage forests to protect water quality and yields – is also high on the priority list.

In the third world countries in particular, the impact of plantations on local development and small land owners needs to be managed.

“New Zealand is in a fairly good position. You have a good relationship between natural and plantation forests, you have high management standards and the industry is well organised,” he says.

Colin Maunder, who represents New Zealand FSC forest growers, says de Freitas met with growers and saw for himself how plantation forestry operates in its North Island heartland before travelling to Nelson for the Forestwood conference. To some extent all plantations have been tainted by very short rotation tree crops in tropical countries, he says.

“We argue in FSC forums that we are different – but we’re undermined by other countries using the same argument in an attempt to get special treatment or exemptions from certification standards,” he says.

“When he had seen for himself, Andre admitted that we are genuinely different. Our problem weeds and pests are all exotics, our forests provide multiple services and our indigenous people own land and forests, where they are involved at all levels from management to the forest floor, and that’s probably unique in the colonised world.

“There were three key messages we wanted to get across – about pest control, the role of indigenous people and that plantations have led to our native forests being preserved. I am confident we did that.”

During his stay, de Freitas had talks with Forest & Bird and Greenpeace, which Maunder hopes will help form a constructive basis for a round of talks on a National Certification Standard beginning in November. In the New Year some of FSC’s technical experts will visit New Zealand to get a better understanding of NZ plantation management systems and especially the options for controlling introduced weeds and pests.



FSC director Andre de Freitas with a karearea (native falcon)

The karearea is a threatened species that benefits from vertebrate pest control in the cut-over plantations that are a favoured nesting site

More wood is better



The two-thirds scale Pres-lam building frame being readied for seismic testing at Canterbury University

In a simulated 7 Richter earthquake the frame showed very high resistance to seismic load



Researchers with a Pres-lam beam
Cables running through the void are tensioned when the building frame is assembled

THE WORLD HAS TO FIND WAYS TO BUILD COMMERCIAL BUILDINGS THAT ARE LESS HUNGRY FOR ENERGY AND NON-RENEWABLE RESOURCES.

Studies at Canterbury, Auckland and Sydney Universities are showing the way.

According to Canterbury University researcher Stephen John, traditional buildings consume 40% of all energy and raw materials used in the world. Building, maintaining and keeping them warm (or cool) consumes vast quantities of fossil fuel.

By using wood-rich construction techniques he and his colleagues have shown that it is possible to build multi-storey commercial buildings that are significant net storsers of carbon.


This is due to the pool of stored carbon in wood, the smaller quantities of fossil fuel needed to convert trees into a usable construction material and the use of timber manufacturing wastes as a carbon-neutral fossil fuel.

According to Scion's Life Cycle Assessment of NZ building materials there is 24.16 MJ of non-renewable energy embodied in a kilogram of structural steel, versus 6.90 MJ in plywood.

Under the guidance of Prof Andy Buchanan, the Canterbury research team has been developing construction

techniques using 'Pres-lam' beams, made from pre-stressed laminated



 Stephen John at Forestwood 2009
Enthusiastic about the potential of wood-rich multi-storey buildings

veneer lumber (LVL). The beams are made from multiple glued radiata laminates about 3 mm thick, tensioned with steel cables.

Pres-lam beams can be almost as long as the designer's imagination, enabling large open-plan offices and conference halls to be created. Because Pres-lam is relatively light, the foundations of the building are smaller than those needed by a ferro-cement structure.

A two-thirds scale 2-storey Pres-lam building, tested at Canterbury in a simulated 7 Richter earthquake showed very high resistance to seismic load. The Pres-lam beams exceeded the building code requirements for fire performance. Tests for other important parameters also came up trumps.

Noise transmission was a challenge. To match the excellent noise insulation properties of concrete, the researchers developed a floor system based on 65 mm of concrete laid on 17 mm of plywood, mounted on 400 mm x 63 mm LVL floor joists.

This flooring system and the Pres-lam construction techniques are some of the many breakthroughs achieved by the





LVL (Laminated veneer lumber) at Nelson Pine Industries

Can be used for beams that are almost as long as a designer's dreams

Structural Timber Innovation Company Ltd (STIC) which was set up to answer the question, "Why aren't we building large span and multi-storey timber buildings to capitalise on the growing world-wide demand for sustainable buildings?"

Four years of research later, that question is being answered in a very practical way. Next year the Nelson-Marlborough Institute of Technology will be building a commercial building based on wood-rich Pres-lam technology in Nelson.

Funding for the research has come from Carter Holt, Nelson Pine Industries, BRANZ, and the Pine Manufacturers Association in New Zealand, Wesbeam and Forest and Wood Products of Australia, and the three universities involved. Their investment is being matched by the NZ Government via the Foundation for Research Science and Technology (FRST) to the tune of \$1 million a year for five years.

The research on frames and walls, seismic resistance, fire safety and sustainability is being carried out at Canterbury University. Long span roofs and fasteners are being explored at Auckland University, while UTS Sydney has been looking at floors and acoustics.

Having developed Pres-lam and related technologies, the Canterbury team recently used the construction of a new 6-storey ferro-cement biological sciences building at the university to

compare the environmental footprints of different construction materials.

Assuming the storage of carbon in wood was permanent, the raw materials in the steel and ferro-cement designs had net manufacturing emissions of around 1520 tonnes of CO₂. Conventional timber had 100 tonnes, while wood-rich construction stored 630 tonnes.

Because buildings, regardless of the construction material, use a similar amount of energy to heat and maintain (concrete uses about 3% less than the others), the carbon footprint of wood-rich buildings slowly grows during the lifetime of the building. Nevertheless, during an assumed 60-year useful life, a wood-rich version of the biological sciences building would have a footprint of only 1.3 tonnes CO₂/m², compared with steel and ferro-cement at 1.8 tonnes CO₂/m². Standard wood at 1.5 tonnes CO₂/m² lay midway between the two.

Construction costs were not assessed, but John believes pre-fabricated wood-rich buildings are potentially faster and easier to construct than steel or ferro-cement. Also, as energy costs resume their inexorable rise and under the ETS, carbon attracts a price, wood will be advantaged relative to its energy-hungry competitors.

But John cautions the forest and timber industries to keep a close watch on the lifecycle assessments that will increasingly be applied to buildings to determine their carbon footprints.

"What happens to the wood in a building when it reaches the end of its useful life is very important when doing lifecycle assessments. Our calculations assume that the carbon is locked up in a wood building forever.

"Future rating schemes will be more specific. Will the demolition timber end up in a poorly designed landfill where it emits methane as it decomposes? Or will it be in a secure landfill where it doesn't decompose, thereby providing a permanent store of carbon? Or will it be efficiently burned as a substitute for fossil fuel, with another wood-rich building erected in its place?"

It's clearly in the interests of the forest industry to ensure that a whole-of-life system is developed that provides for demolition timber to be recycled or 'locked up' in permanent storage, or burned for energy. Without assurances that this is happening, wood will lose some of its advantages in rigorous carbon footprinting assessments.

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the high loss of land value associated with this penalty. "All well and good," says Rhodes, "but let's have all pre-1990 forest owners fairly compensated."

"Clearly a property that has such a liability will have a lower market value, regardless of whether forestry is the highest and best use for it today. Who knows what the future holds? Twenty years ago, who would have thought that rabbit infested Central Otago flats would one day grow some of the world's best Pinot Noirs?"

The compensation for this permanent loss of value is 60 NZUs/ha (pre 2002) and 39 NZUs/ha (post 2001). In contrast, the potential liability is around 800 NZUs/ha should the owner ever change land use, or if the forest is destroyed and cannot be economically replanted.

The final straw for the credibility of the ETS in the minds of many in the industry is a proposal to tax large users of biofuels – mainly pulp and paper mills – for the traces of nitrous oxide and methane in their emissions.

"Taking such a pedantic approach to a minor source of greenhouse gases, while leaving the major sources largely untouched smacks of cynicism. It is also perverse to send a signal that will discourage biofuel use, particularly when governments the world over are helping competing firms to move from fossil fuels to biofuels," Rhodes says.

"US pulp mills are getting massive Federal Government biofuel subsidies for producing black liquor from wood and the Canadians have announced a big investment subsidy programme to support the use of wood biofuels at pulp mills."

Overall, there is a striking contrast between the treatment of forestry (the ETS good-guys) and the carbon polluting industries. Only with fair, economically rational treatment of all industries – emitters and sequesters – will the government get the forests it needs to allow the economy to adapt to a carbon constrained world.

Unlocking stored sunshine

ON THE MAP IT LOOKS CRAZY. IN ORDER TO MEET EU DEMAND FOR BIOFUELS, BULK FREIGHTERS ARE BEATING A PATH FROM BRITISH COLUMBIA DOWN THE NORTH AMERICAN COAST TO THE PANAMA CANAL AND THEN TO EUROPE.

The wood pellets on board reflect EU targets for renewables (20% by 2020) and the availability of beetle-damaged trees at rock bottom prices in Canada. This year the trade is expected to reach 1.2 million tonnes, a business that wasn't even predicted three years ago.

Harvest wastes are a huge unrealised energy feedstock in regions outside the economic working circles of pulp mills and MDF plants. Yet despite this potential they have tended to be treated as 'catch' crops – sources of opportunistic income, but with so little certainty that few if any forest growers are managing their estates to maximise the opportunity.

That is likely to change. As David Rhodes commented in the winter edition of the *Bulletin*, expanded pellet production by Solid Energy at its new Taupo plant and scoping studies by other companies are likely to result in increased competition for pulp-grade logs.

World-wide, as developed countries move to reduce their use of fossil fuels, a huge investment is being made in biofuels, including pellets, woodchips, black liquor from pulp mills, biodiesel and bioethanol.

Jarrod Waring of Plantation Energy, Australia, says total world demand for wood pellets stands at about 10 m tonnes, about half from domestic users. The balance is from industry, the area of greatest long-term growth.

Most of this demand is being driven by the EU 20/20 renewables target, of

which 8% will come from biomass. By 2010, the EU will be generating 22 GW of its electricity from biomass (37 m tonnes of pellets). This compares with the Huntly coal-fired power station which has an output of 1 GW.

Other countries are making similar commitments. China, for example, has set a target of 30 GW from biomass (50 m tonnes). In the United States, several large pellet plants have been built and more are on the drawing board, thanks to lucrative government incentives. A big part of the attraction of wood pellets is that it costs little to convert existing coal-fired power stations to their use.

Plantation Energy is an unlisted Australian public company that's getting into wood pellet manufacture in a big way. But Waring emphasises that the cost of raw materials and operating scale are critical to the economics of the company's operations.

The plant it is operating in Albany, Western Australia and the nine others it plans to set up around the red continent will each have a minimum throughput of 250,000 tonnes and draw raw material from a radius of no more than 100 km from the plant.

The company aims to produce 1.65 m tonnes of pellets by 2013, drawing on a feedstock of 2 m tonnes of harvest wastes. To guarantee supply, it has been signing 5-10 year supply agreements with forest owners and mills for its Albany plant and the next two to come on-line – at Wandilo, South Australia and Heywood, Victoria.

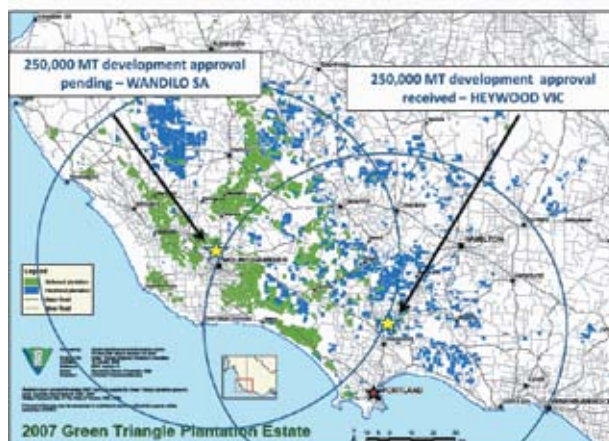
Waring says the company's 2010 production is contracted for sale into Europe at E120-130 a tonne c.i.f, with prices based on calorific value, ash content, freedom from contaminants and other parameters. Looking ahead, he expects to find new markets in Australia and Asia, and for chain-of-custody certification to be of increasing importance.

Nature's Flame, a subsidiary of Solid Energy, is the biggest pellet manufacturer in New Zealand. Renewable energy general manager Andy Matheson says output at the company's new Taupo plant will reach 300,000 tonnes a year by 2015.

Even though the plant will need only three staff and will use low-cost geothermal steam for drying, he concedes it will struggle to make money at current oil prices. Its viability depends on strong carbon pricing, or another surge in world oil prices.

The domestic market for wood pellets, which is largely driven by the demand for a low particulate emission fuel in cities with strict air quality plans, is already catered for by the company's existing 50,000 tonne pellet plants in Rolleston and Rotorua.

Another potential source of demand for harvest wastes and low grade logs is the pyrolysis of wood to produce gases which are catalytically converted into diesel fuel using the Fischer-Tropsch process. This is the subject of a major research programme at Canterbury University under the supervision of Professor Shusheng Pang.




Jarrod Waring speaking at Forestwood 2009 and a map showing the location of the next two Australian pellet plants. Scale, as well as proximity to raw materials and ports, are vital to the economics of wood pellet manufacture using harvest wastes



ECoP scores big award



 Peter Weir with the handsome RMLA award trophy

The Forest Owners Association Environmental Code of Practice has won a prestigious national award.

The Resource Management Law Association presented their 2009 award for the most outstanding resource management documentation to the Forest Owners environmental chair, Peter Weir, at their annual conference in Wellington in October.

The Code, published in 2007, has been adopted by most major forest owners and their contractors and endorsed by the NZ Farm Forestry Association. It includes compulsory rules and best practice guidelines that FOA members must observe in their day-to-day forestry operations.

A recent survey showed that more than 90 per cent of contractors involved in silviculture, harvesting, roading and earthworks, and agrichemical and fertiliser application, have adopted the Code.

The 2007 Code is the most recent step in the forest industry's journey to audited self-regulation and management.

"Some leading regional councils have signalled that they will remove the need for forest owners to get consents for forest operations where they can demonstrate audited compliance with the Code. Hopefully this will apply nationally with the adoption of a proposed NES for plantation forestry," Mr Weir says.

Weir thanks the Code's many authors, making special acknowledgement of the important roles played by Chayne Zinsli and Kit Richards. He also thanked Brett Gilmore and Pan Pac Forests for allowing the company's environmental management system to be used as a template for the Code.

Mill helps eradicate fire ant

Pan Pac management and staff have played an important part in the eradication of the red imported fire ant, an exotic pest, from Whirinaki north of Napier. In April, MAF Biosecurity New Zealand declared the ant eradicated after a three year eradication programme.

In mid-2006 a Pan Pac worker saw some unusual ant activity in a little used corner of the mill yard. Realising he had not seen anything like it before, he notified the authorities.

"This incursion has cost the taxpayer a considerable sum, but without the support of Pan Pac the cost could have been considerably higher and the programme far less efficiently run," says forest biosecurity consultant Don Hammond.

"The company provided accommodation and facilities, space for operating field teams, areas for aerial application to operate from, security and a host of other support. Staff assisted the MAF Biosecurity contractor (AsureQuality) whenever they were asked and in particular respected the controls placed on the movement of materials that




could carry the ants off-site."

The red imported fire ant, *Solenopsis invicta*, is one of the world's worst invasive species. In recent years populations have become established in the United States, Australia, Hong Kong, China, Singapore and Taiwan. The ant's painful sting and aggressive nature means that, apart from the very substantial cost to our economy from damage done by this pest, it would also dramatically alter our outdoor way of life.

New Zealand is the only country that has successfully eradicated the ant, thanks largely to early detections and rapid responses. The ant has previously been detected at Auckland International Airport (in March 2001) and Napier Seaport (2004). Both incursions were eradicated.

High-vis changes coming



 Fluoro clothing can't be missed in the bush

Originally introduced in 2005 by the Forest Owners Association, *Guidelines for High Visibility Clothing* specify the minimum design standards for high-visibility garments used in New Zealand plantation forests.

They take account of the high physical workload, dynamic movements and the high levels of metabolic heat produced by workers undertaking many forest industry tasks. The garments must also be well fitting, to reduce the risk of snagging on trees, undergrowth and equipment.

Lime/yellow and orange were the colours chosen based on studies that show that they are highly conspicuous and are also visible to the small percentage of the workforce that has some kind of red-green colour blindness.

Since the original testing agency can no longer test new garments, talks are progressing with AgResearch to provide this service. In addition, chromaticity coordinates and luminance factors have been updated.

The FOA expects to release the updated guidelines in mid-December, after consulting with affected parties.



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