

crop by introducing the aroma of camphor; or wouldn't it be exciting to use 12-year old pine thinnings for peelers as in the southern United States (Walker, 1993 p. 384)? Long-internode breeds have a major role to play in short-rotation forestry.

Tree breeders dislike using very young wood to predict prospective wood quality, probably because environmental effects, of site conditions and wind, are especially acute and create so much "noise" in the data. If you reverse the logic, even with superior breeds there will always be "noise" attached to the corewood of elite stems which will make superior wood quality variable and less predictable. So one will need always to dock the dogs tail and sort. At least we will know why we are doing it.

John Walker

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Table 4. Between-log variation of stiffness, strength, density and spiral grain, for the best and worst 10% of logs sorted according to stiffness.

Log type	Group	# of trees	# of boards	MOE (GPa)	UTS (MPa)	Density (kg/m ³)	Spiral grain (°)
Top	High stiffness	5	22	8.2	18.1	461	2.0
	Low stiffness	5	22	4.7	9.5	492	5.0
Middle	High stiffness	5	30	9.2	24.5	482	1.6
	Low stiffness	5	30	9.2	24.5	482	1.6
Butt	High stiffness	5	40	9.8	29.9	523	1.3
	Low stiffness	5	40	4.1	13.4	480	3.7

High stiffness = best 10% of logs; low stiffness = poorest 10% of logs.

Certification

Forest and forest products certification have been hot topics in New Zealand forestry circles over the past few years. Driven by environmental concerns certification seeks to ensure that forestry practices are environmentally acceptable. To this end certification considers both the management processes that are being undertaken and the standards that are being achieved.

In New Zealand the debate has largely centred around two certification processes — International Standards Organisation (ISO) and Forest Stewardship Council (FSC).

ISO is the international body involved in setting up product standards throughout the world, based in Geneva. Only comparatively recently has ISO moved into the area of management systems, of which ISO 14 000 is concerned with environmental management. A number of New Zealand forestry companies have ISO 14 001.

FSC was set up in 1993, largely through the efforts of international non-government environmental organisations, to ensure that forests are subject to good

forest management. Plantation forests are also included within the FSC mandate. Based in Mexico FSC is active worldwide and already in New Zealand two companies have achieved FSC certification.

ISO 14 001 and FSC are compatible systems. ISO 14 001 certifies that management processes are environmentally acceptable, whereas FSC certifies that defined standards are being achieved. ISO 14 000 can also be applied to management of forestry processing companies but neither FSC nor ISO set processing standards.

Both ISO 14 001 and FSC seek continuous improvement in the operations that they certify. Six monthly audits by independent auditors ensures certification in the first instance and that standards are being maintained or improved thereafter.

Detractors of FSC have expressed concern that FSC's principles are based on ideology, with one set of standards to apply across the globe. There is also concern that the standards may become too strict, costing forestry companies who have already been certified considerably more in order to maintain compliance.

ISO 14 001 on the other hand relies on companies to set up their own environmental standards. There are concerns that this may lead to companies making it easy for themselves. Partly in response to this ISO is also moving in the direction of setting up environmental standards, but this process may take some time.

FSC has made in-roads into international markets particularly in the Northern Hemisphere. Some building suppliers in the United Kingdom are now requiring that their wood purchases are FSC certified, stating there are no other credible certification bodies. ISO 14 001 certification is not acceptable for this purpose because ISO only certifies management processes, not product.

Some countries, such as Canada, have proceeded to develop their own certification processes which they are now testing in the market place. New Zealand, through the Forest Industries Council, is also trying to develop a "report card" type process, based on the Canadian model. This would enable forestry companies to list their environmental credentials, such as having an environmental management

system, in order to meet any market requests for evidence of such activities.

For a forestry company the value of certification depends on the end point in mind. ISO 14 001 is a useful management systems tool, FSC is a useful marketing tool. The New Zealand "report card" may or may not be useful as a marketing tool, depending on its degree of acceptance internationally. There is still a large amount of development work needed to be done with it.

The costs of certification are high, running into the tens of thousands of dollars plus ongoing auditing costs. FSC is significantly more expensive than ISO 14

001 in the earlier stages. Some of these costs can be shared — for example the Farm Forestry Association can become certified on behalf of certain of its members.

Despite some surveys suggesting that the customer is prepared to pay a premium for certified wood (see Ozanne and Bigsby, 1997) the reality has proved different. Still those companies that have gained FSC certification have at least maintained market share, which in these times must be an advantage.

It may seem that the forestry sector is being picked on ahead of other sectors, notably agriculture, with regard to envi-

ronmental issues. New Zealand foresters are already subject to a host of legislative requirements including the Resource Management Act 1991 and Forests Act 1949. Be that as it may, Forestry companies need to be able to respond to the marketplace and public perceptions and foresters should be thinking through the responses that best fit their circumstances.

Tim Thorpe

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RECENT EVENTS

Forest Companies Restructure

Both Fletcher Challenge Forests and Rayonier New Zealand have recently announced major restructuring plans.

Fletcher Challenge Forests in late April announced a new management structure which will see 34 management and technical positions in the company's forest operations being lost. This is about 8% of total staff.

Six new business groups have been formed.

There will be four business groups focusing on different markets:

- North American Business Solutions which includes American Wood Mouldings, the new Taupo sawmill (Taupo Solid Lineal Mouldings) and the Mt Maunganui wood processing plant.
- Japanese Housing Solutions which includes the relatively new Kawerau laminating plant and Waipa Sawmill.
- Australasian Consumer Solutions which includes both structural lumber and Ramsey Roundwood, Rainbow Mountain and Kawerau sawmills, Waipa remanufacturing and Mount Maunganui Plywood.
- Global Industrial Sales and Trading which includes log and lumber sales, sales of industrial products to key customers and third party purchases of logs and lumber.

Two resource-based units will manage the forests in New Zealand and Chile. They will be charged to supply wood to the business-market groups at market prices and to make the most efficient use of the wood crop. Eight support functions will be shared by the six business units

and have a co-ordinating role.

According to Ginny Radford, the Director of Communications, the move was away from the concept that the company was primarily into growing wood and owning resources to a more direct link between the forests and the markets via the four business groups. That is why there has been expansion in value-added processing over the last few years

In mid February Fletcher Challenge Forests also announced a new brand name — Origin — designed to emphasise the quality of its products from the Central North Island.

Rayonier New Zealand announced its

restructuring in late February in which 20 positions were lost out of a total staff of 230 people. In the process it has:

- Reduced from five to three districts in the Forest Resources Division.
- Reduced from six to four managers in the Operations and Log Marketing Division.
- Merged research and technical functions in Auckland and scaled down some other Head Office functions.

Even with these changes Rayonier staff still remain in all previous locations. No changes at their MDF plant in Maitua were announced at this time.

Ministry of Agriculture and Forestry

The new Ministry of Agriculture and Forestry came into being on the 1st March with Bruce Ross as Director-General. The purpose of the new organisation is to ensure agriculture, forestry and horticulture continue to make the best contribution to New Zealand's sustainable development and economic growth. One of the key functions will be to manage biosecurity. It will also manage the Crown's forestry interests and commitments. MAF Quality Management (MQM) which includes services such as meat inspection, animal health laboratories etc. have been transferred to the new Ministry as separate business units in the meantime, but may be commercialised before the end of 1998.

Under the Director-General is the Deputy Director-General (Biosecurity) —

Peter O'Hara — and ten other senior managers. Murray McAlonan, the Group Manager Forest Management is the most senior forestry person. He has the role of special adviser to the Director-General on forestry and on forestry relationships. Directly under him is the Manager, Indigenous Forestry Unit in Christchurch (Tony Newton), National Manager Forest Health (Ross Morgan), and General Manager Crown Lease Forests (Charlie Schell). Five others are involved in managing crown lease forests or as advisers to the East Coast and Northland projects. Regionally based forestry people in the Policy section are based in Auckland, Rotorua, Nelson, and Christchurch.

Doug Graham who heads the Finance Section also came from MOF and is part of senior management team. Mike Jebson