

per fungicide at competitive rates on the world market;

- purchase bulk supplies of spraying oil, to mix with the copper, on the New Zealand market;
- organise and let contracts for the aerial inspection survey to assess levels of Dothistroma infection;
- organise and let contracts for the aerial application of the fungicide;
- monitor the quality of the fungicide and the efficiency of the whole spray programme;
- review any new techniques or developments from research.

The committee comprises representatives from the Ministry of Forestry, Forest Research Institute, and private forest owners.

To enable flying contracts to be let in time for the November application, the areas to be sprayed had to be known by mid August.

Should you require assistance to assess Dothistroma infection, contact Forest Health officers at the Ministry of Forestry in the following areas:

Kaikohe Ph (09) 401 2246

Auckland Ph (09) 303 3423

Rotorua Ph (07) 348 0089

Wellington Ph (04) 495 2471

MOF Forest Health Officers will either inspect or provide contact with the nearest qualified Forest Health Officer.

A History of Forest Research in New Zealand

A History of Forest Research in New Zealand: Commemorating 50 years of Research at the Forest Research Institute (FRI), 1947-97. Kininmonth, John A. 1997. Rotorua: NZFRI. 271p. \$NZ60.

New Zealand has many outstanding accomplishments in forestry, but none it should be prouder of than its Forest Research Institute (FRI). Earlier this year, FRI celebrated its 50th anniversary. John Kininmonth's documentary history is part of that celebration. The history also comments on contributions by the Maori, early botanical explorers, like Joseph Banks, the NZ Forest Service, and many other internal and external influences on FRI and its accomplishments.

Kininmonth brings a love of New Zealand and FRI to bear on his subject. Chapters 1-6 cover detailed descriptions of FRI's origins, growth and development, and programme evolution. He documents without undue detail, but many readers will find that skimming most sections of these chapters gives an adequate picture. A few will find the details invaluable, as I did, for filling in the personalities and project specifics of FRI's history.

Chapter 7, "Key influences and reasons for success", begins the more analytical portion of the book. For most readers, especially those apart from FRI and the NZ Forest Service traditions, Chapters 7-10 are the most valuable. In some ways, these chapters also are the most frustrating. The celebratory nature of Kininmonth's volume, with the necessary documentation to preserve details that soon will be lost with the passing of a generation of pioneers, precluded important critical analysis.

BOOK REVIEW

FRI is the global forest research institution most like the international green revolution success stories in rice, wheat, maize and other food crops. Like the International Rice Research Institute (IRRI), FRI developed a clear vision of achievable results in terms of much increased productivity and value growth per hectare per year. FRI had a remarkable starting point with radiata pine. New Zealand's fortuitous heritage of economic botany from Britain and much early testing of species

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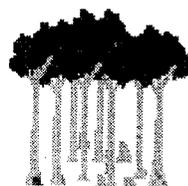
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enabled a group of research leaders to concentrate on radiata pine. A strategy developed under men like Bunn, Fenton and Sutton, and they provided the will to implement effectively their focused strategy. The arguments were many, according to the stories I have heard from many participants, but in the end a vision became common among the leaders, scientific staff, and forestry practitioners of New Zealand. The radiata story is in the book, but the power of it is missing or hidden to readers who do not already have a reasonably complete understanding of it.

Kininmonth makes an effective argument for the success of FRI being its location in the Forest Service. He argues that professional foresters played a critical role by having a concern for the forest as a whole and the flow of benefits into the broad social-economy. This is a holistic perspective that foresters seldom receive credit for holding. The author fears that with the demise of the Forest Service and establishment of FRI as an independent Crown Research Institute, this overview will decline in importance. Statistics that demonstrate FRI has fewer scientists today with forestry backgrounds reinforce his fears.

There are, of course, counter arguments that it was the sometimes narrow and territorial perspectives of professional foresters that limited the evolution of both the Forest Service and FRI. The dialectic in this and similar contrasts is not pursued. The lack of such critical examination of arguments is the major drawback in this otherwise well-documented book.

For outsiders, Chapter 9 on science reform in New Zealand and chapter 10 on FRI as a Crown Research Institute are the most interesting and useful parts of this volume. New Zealand has been a pioneer in privatising both its public forest plantations and its public forest research capacity. The book documents the strengths as well as the weaknesses. Especially important is the point-counterpoint between the themes of "user pays" and "national priorities" funded by the Public Good Science Fund.

Again, this reviewer wishes more attention was given to analysis and the policy implications of these arguments. That said, Kininmonth provides us with a starting point in evaluating the important New Zealand experiment with privatising applied forestry research along with most research services for agricultural commodity producers and the land-based environment.

In summary, this book is an "important read" for three audiences. New Zealand foresters and forest scientists can obtain a quick history of their own unique contributions to forest research. The importance

Test-tube wood fibres : creating new opportunities for forestry

A Rotorua scientist has created a world-first by reliably growing pine wood fibres in test-tubes.

Dr Dale Smith, working under contract to the Forest Research Institute, recently reported on progress and released photographs of the cultured pine fibres. A key tool in Dr Smith's research has been the Forest Research Institute's half-million dollar laser scanning confocal microscope, purchased in 1996 with Lottery Grants Board funding.

"This sophisticated equipment produces three-dimensional coloured images that allow us to observe the formation of walls in living cells, something that is not possible while wood is forming on trees,"

said Dr Smith.

"Pine fibres are the basis of New Zealand's entire forest industry. It doesn't matter whether the end-product is structural lumber, MDF, paper, or corrugated cardboard. By observing the deposition of cellulose and lignin in living cells, we are able to gain insights into the factors that regulate fibre growth, such as fibre length and cell wall thickness, which have a major influence on wood properties and subsequent use in industrial processing.

"This scientific development could help us unlock the latent genetic potential of pine trees to develop in a way that may be of considerable benefit to the timber industry of New Zealand," said Dr Smith.

Regional Studies series published

A new-look, updated *Regional Studies* series is now available from the Ministry of Forestry.

The studies cover 10 wood supply regions in New Zealand and provide information on the forest resources, processing facilities, future wood supply and infrastructure specific to the region.

This information will be particularly useful to Regional and District Council planners, investors and forest owners who need detailed information about the forestry sector in New Zealand.

Regions covered are Northland, Auckland, Central North Island, Hawkes Bay, East Coast, Southern North Island, Nelson

and Marlborough, West Coast, Canterbury and Otago and Southland.

Each region is published as a separate booklet. A national overview document completes the set, giving additional information relevant to the entire New Zealand forest sector, including legislation, risk management, costs and returns and future prospects.

The full series set of 11 booklets costs \$275,000, with individual booklets costing \$25.00 each. They are available from the Ministry of Forestry, tel: 64-4-472 1569, or from local Ministry of Forestry offices.

of this increases because so many early leaders already are gone. Other applied science areas in New Zealand can gain an appreciation for their own areas by reading about what happened in forestry. The lessons learned are applicable to agriculture and the environment, and they are not without merit for most other sectors of research and development.

Finally, those of us concerned with policy and management of forest research in other nations and globally must follow the New Zealand experiment. This is the most bold, radically market-oriented model of forest research in the world. We all can learn from its successes and its failures.

William R. Bentley
Chair, Faculty of Forestry
SUNY College of Environmental
Science and Forestry
Syracuse NY 13210 USA

Australian forestry books easier to get

Buying Australian forestry industry reference books will be a lot easier now that Manaaki Whenua Press (MWP) is distributing books from Australia's CSIRO in New Zealand.

To keep pricing simple, MWP will sell CSIRO books for the same dollar amount as in Australia, plus GST. For example, *Working with mycorrhizas in forestry and agriculture*, which sells for \$A124.00 in Australia will sell for \$NZ124.00 in New Zealand plus GST, or \$139.50.

"This removes problems with exchange rates and postage from Australia. Also, if a customer has a catalogue from CSIRO then they can work out how much the price is, without having to know the latest exchange rate," says Greg Comfort, the manager of Manaaki Whenua Press.

For more information contact: Manaaki Whenua Press, PO Box 40, Lincoln. Ph. 03 325 6700, Fax 03 325 2127, <http://www.landcare.cri.nz/mwpress/>