

For all New Zealand foresters who have been raised on a heavy dose of *Pinus radiata* culture I strongly recommend that you read this book and then visit China. It will greatly broaden your outlook on the potential for New Zealand interactions with China and also on the possibility for evaluating Chinese forestry species in New Zealand.

This book, of 384 pages and published in 1990, is available from:

Island Press  
Washington Office  
1718 Connecticut Avenue, N.W.  
Washington, D.C. 20009  
Ph. (202) 232-7933

for Cloth \$45.00 ISBN 1-55963-023-x  
Paper \$26.95 ISBN 1-55963-022-1

Allan G. Wilkinson

## NZ Timbers

**New Zealand timbers. Exotic and indigenous. The complete guide. 1990. By N.C. Clifton. Government Printing Office. ISBN 0-477-01488-7. Xii + 170 pages. \$NZ39.95 (including GST).**

A book on exotic and indigenous timbers grown in New Zealand can hardly fail to appeal to local wood users, particularly when it embraces the timbers' functional, aesthetic, and craft attributes. No doubt Clifton's book will attract a widespread readership in New Zealand but after a first reading to satisfy initial curiosity I suspect the book will be returned to the shelf or coffee table and remain there for only occasional or passing use.

As acknowledged in the book, "New Zealand timbers" updates much of the information presented in earlier works such as Entrican *et al* (1957. Forest trees and timbers of New Zealand. Government Printer, Wellington). While a fervent wood technologist might not be satisfied, Clifton's book has the virtue of being written in a colloquial style using a minimum of technical terms.

Diagrams and photographs (black and white and colour) illustrate the book. The photographs did not always complement the text and the colour photographs, at least for the timber samples, were imbued with an unfortunate green hue (in both my copy and others I looked at). Some diagrams did not reproduce well.

Clifton's extensive knowledge and experience shows in this book and I found particularly illuminating the descriptions of timber use by Maori and early European settlers. Nevertheless, a reader might have benefited more from Clifton's work given judicious editing.

The text tends to be tedious and some has been omitted in publication (p. 63). The references to unspecified sources for further details probably will prove frustrating for readers seeking clarification of the occasional ambiguity, (e.g., Kauri heartwood durability, pp.4 and 57) and factual slip (e.g., concerning the blunting effects of *Eucalyptus saligna* timber). Even numbering the figures would have assisted author and reader alike.

Clifton's emphasis on the timber species themselves makes the separate turnery section appear misplaced. I thought the species emphasis made it hard to decide what timber to use for a given task. Some tables relating uses to required wood properties and wood properties to species could have indicated, virtually at a glance, the uses individual timbers suited. A glossary would have been helpful as well.

Clifton's book is timely insofar as it complements Scott's "Imported timbers in New Zealand" handbook (1987, Government Printing Office, Wellington). However I hope Clifton produces a second, more 'user-friendly' edition of "New Zealand timbers", an edition providing greater reader satisfaction than the first.

Bruce P. Glass

## Bioenergy Agreement Summary Reports

**Forestry, Forest Biomass, and Biomass Conversion: The Bioenergy Agreement (1986-1989) Summary Reports, edited by C.P. Mitchell, L. Zsuffa, S. Anderson and D.J. Stevens, Elsevier Applied Science 1990, 351pp, ISBN 1-85166-443-2.**

Reprinted from the journal Biomass, this book contains 25 papers summarising the achievements of each of the activities carried out between May 1986 and April 1989 under the International Energy Agency Agreement on Bioenergy Research and Development. The papers are grouped under three main headings, namely, improvement of biomass growth and production technology; methods of harvesting, processing and transport; and methods of converting biomass into usable energy forms. Almost all papers deal with trees as a source of energy with an emphasis on short rotations and intensive culture. Ten countries began the co-operation in 1986. Subsequently three other countries became involved. New Zealand is the only southern hemisphere representative. Each paper outlines the scope and achievements of an activity which may encompass one or several co-operating countries. The wide diversity of

authorship has inevitably led to a variety of style which varies from broadly descriptive to quite detailed presentation of quantitative results.

Bibliographies provide the keys to the information only briefly summarised in the various articles but more extensively reported in proceedings of small international meetings used as a means of promulgating research findings. While not a fault of the book itself, this method of publication will undoubtedly be a source of frustration to the reader who wishes to pursue any topic at a deeper level. This will be particularly true where items referenced are clearly not available to the public.

The first reaction of many New Zealand readers on seeing the heavy emphasis on northern hemisphere hardwoods (birch, willow and poplar) in the early chapters may be to set this book aside as of little value in the local context. Such a response would be unfortunate. The wide range of topics covered should spark ideas in those associated with more conventional forestry. The comprehensive approach to a particular forestry problem challenges current attitudes towards forest research. Several facets of research considered important in forests for energy receive scant attention in conventional forestry in spite of their relevance to sustained biological and economic productivity.

Research into forests as a source of energy was stimulated by the oil crises of the 1970s. The subsequent slump in oil prices has led to a degree of complacency, particularly in New Zealand, which has been only slightly affected by the current rise in oil price to \$40 a barrel. This book is a timely reminder of the potential value of forests for energy in a country with high natural growth rates. The wealth of research reported emphasises the need for strategic research planning in this country if we are to make a smooth transition to alternative fuels as local oil production dwindles.

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Rotorua

### A NEW CHILEAN PUBLICATION

Fundacion Chile is publishing a new magazine "LIGNUM" which will be oriented towards showing the technological advances in forestry. This publication is one of the projects being undertaken by the Forestry Department of Fundacion Chile.

Its first issue is expected to come out in December 1990 and there will be four issues a year. It can be obtained by writing to the Editor, Ms. Maria Bugenia Diaz. Its yearly subscription is \$US50 (send cheque to the order of Fundacion Chile).

# Radiata plantation statistics

## NEFD and notes on Chilean, Australian and other resource descriptions

Peter B. Lavery

### Abstract

Chile, New Zealand, and Australia, the three principal growers of *Pinus radiata*, account for 88% of a world total of about 3.5 million hectares of plantations of this premier multi-purpose softwood species. The quality of published resource descriptions is reviewed and the integrity of the databases is considered to be generally high in each of these three largest grower-countries. Information on much of the balance throughout the world is not as readily accessed. Management and silvicultural issues pertaining to, and the relative resource maturity of, the radiata pine estates of the three principal countries are commented upon.

### Introduction

NEFD, a NATIONAL EXOTIC FOREST DESCRIPTION, describes itself as "a statistical interpretation of New Zealand's plantation forest resource as at April 1, 1989". The sixth annual edition of The Description has been recently released for public information and scrutiny.

Looking at statistics, like looking at economic appraisals, is known to appear rarely on the list of the forester's favourite viewings. NEFD is about statistics. This article commenced life as a response to a request to provide a review of NEFD 6 Ed., but opportunity has been taken to have a look beyond the local picture to the broader canvas, as the title above indicates.

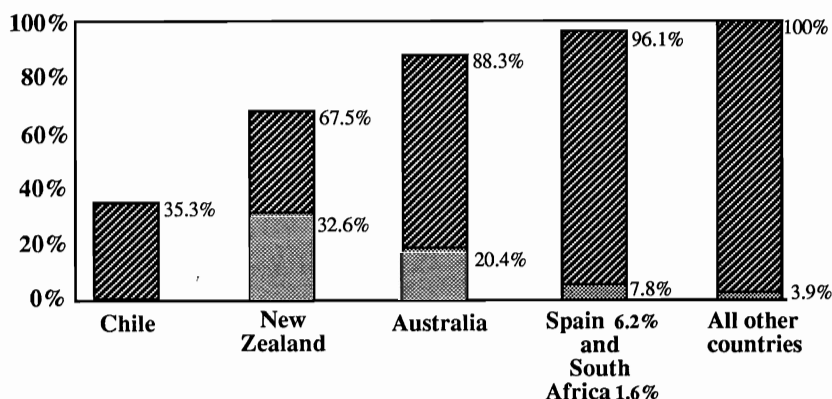
Figure 1 provides an introduction to that broader canvas, and highlights why the Pacific Rim group of Chile, New Zealand and Australia must dominate any discussion about the current global resource of plantation-grown *Pinus*

*radiata*. The radiata story in each of these three countries is a success story, for combinations of reasons, but consistently not the least of these is the market-driven reason that the properties radiata pine wood has displayed have allowed it to move into a broad range of applications across the solid wood, reconstituted wood, and fibre pulp markets. Consequently radiata pine has developed the reputation of outstanding versatility, a premier multi-purpose softwood rather than a speciality timber.

Forest Service plantations now undergoing privatisation. NEFD is the product of a small central unit in Ministry of Forestry (MOF) in Wellington working in conjunction with an informal network of regional data facilitators.

Essentially a detailed plantation area statement and a database by crop type, NEFD is interpreted outside the country as official national statistics. The Description presents nation-wide data aggregated by Territorial Authority (or former united/regional council) as the

Figure 1. Estimated current proportions by area of global estate of *Pinus radiata*, by grower countries (with cumulative proportions left to right)



These notes are largely restricted to commentary on resource description by area and age-class rather than by growing stock volume or by availabilities through simulated woodflow projections. But firstly to the New Zealand resource as described by NEFD.

### NEFD and NZ Statistics

The stated intent of NEFD [Turland & Novis 1990] is "to facilitate the modelling of changes in the forest resource, and to determine processing opportunities and infrastructure requirements". NEFD relies on input from plantation growers, but as a national statement it is ostensibly arm's length from all individual growers, including the Forestry Corporation responsible through NZ Timberlands Ltd for the interim management of the former New Zealand

fundamental geographic unit. Disaggregated information on individual growers is not made available. The majority of the forms of data presented is by way of area statistics in five-year age-classes. NEFD is updated annually, the current edition being compiled by John Turland and John Novis. The hard copy 106 page version can by arrangement be supplemented with greater database detail on disc or tape for computer system analysis.

For the record, the summary table in NEFD reveals a national net stocked exotic forest estate at April 11, 1989 of some 1,239,886 hectares, of which 1,108,203 ha happens to be of the one species. No prizes for guessing which one. Age 1 stands, being 1988 new plantings plus replants, comprise 41,525 ha.

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