

Properties and uses of NZ radiata pine

"Properties and uses of NZ radiata pine – volume 1 – wood properties" J.A. Kininmonth and L.J. Whitehouse, 1991. Forest Research Institute, New Zealand Ministry of Forestry, Rotorua. ISBN 0-47301181-6, 205 × 265mm, hardback, 55 photographic prints. Price \$72 includes GST.

During the early and mid-1980s I worked in the New Zealand Forest Service providing advice on wood utilisation. During this period I heard there were plans for the Forest Research Institute to produce a book on radiata pine wood. After the break-up of the New Zealand Forest Service I moved into another area of work and forgot all about the book until it actually appeared on my desk two weeks ago.

When working in the business of providing advice on forestry products I fielded a wide range of enquiries: everything from match sticks to marine piles, from bark to bobbins. After some time I realised that what most enquirers sought was not the very latest developments in research but just basic information. Most of this information had been around for several years, but required recirculating. In this respect the book will serve a useful role.

Having had relatively little to do with the technicalities of wood properties since early 1987, I am struck by how much of the basic information on radiata pine wood properties has not changed. This has been a pleasant surprise. It also reinforces the usefulness of the work as a reference book, in that it is unlikely to date quickly. However, this may be less true of volume two, which has still to be published, and will be concerned with New Zealand radiata pine processing, products and uses.

The blurb on the dust jacket reads "... this book is a comprehensive account of the wood properties of New Zealand radiata pine and helps to explain why this species has come to occupy a pre-eminent place in the New Zealand wood industry. It reviews research carried out in this country over the past 50 or so years, providing up-to-date information on the formation, structure, and chemistry of wood and bark, log quality, wood physical and mechanical properties, wood/water relationships and biodeterioration. . ."

The scope is unashamedly New Zealand radiata pine. Comparisons with radiata pine from other countries, and with other softwoods in general, are left to the reader to research.

It is far from being a mere coffee table book. Its style is serious and the content is technical. At the end of each of the nine chapters there is a substantial list of references. The book is illustrated with numerous black and white photographs and also contains a large number of diagrams and graphs. The nine chapters of the book vary in length, the fourth, which is concerned with wood chemistry, being by far the largest.

Even if the book had not been prepared by the Forest Research Institute, which of course enjoys respect both domestically and internationally, the thoroughness and attention to detail with which the work has been prepared suggest that readers can have full confidence in its technical accuracy.

The dust jacket also says: "This book is for everyone who wishes to understand radiata pine as a wood material and who is interested in its further development, marketing and use." I doubt whether the majority of people involved in New Zealand radiata pine wood processing, marketing or utilisation will wish to read the book from cover to cover, as each of the nine chapters deals with rather different subject material, not all of which is likely to be directly

relevant to a single occupation. For example, chapter five on log quality may be the most relevant section for those involved with the sale, marketing or purchase of logs, while chapters six to nine are likely to be the most relevant for those involved with the marketing or use of sawn timber. However, the book in toto could function as a useful reference work, not only for those involved with processing, marketing and utilisation but also as a first point of researchers and academics.

As more and more of New Zealand radiata pine is destined for export, in one form or another, it is to be expected that this wood will become increasingly well known on world markets. There is a need to supply information, at various levels of sophistication, to facilitate a wider understanding of the wood's properties and uses. This book, by providing technical information to actual and potential overseas purchasers and users, is likely to make a valuable contribution to this process. This function is all the more important in view of the shift from "old crop" radiata pine to "new crop" material, as outlined in section 1.4 of the text.

Mike Blakeney

Presidential address – continued

similar volume to current harvest of tropical hardwood sawlogs.

Substitution by reconstituted wood is an option but that would require both a huge volume of wood (the source of which is difficult to identify) and a very large capital investment. Some of this will happen and some of the new plantations in the tropics could be used as raw material. But again a huge effort will be required.

Substitution by some non-wood products is unlikely to be a practical option. Even if there are suitable substitution products the solution would only be a short-term alternative. All wood substitutes (plastics, metal, concrete etc.) require a large amount of capital to be invested in plant etc. At least equally important, considerably more energy will be required for the production of the substitutes than was needed for wood products which it is replacing. Large-scale substitution therefore depends to a large extent on the availability of cheap, renewable and environmentally friendly energy.

CONCLUSIONS

We can be sympathetic with a need to stop utilising the remaining tropical forests, but the reality is that there are no significant alternative sources of wood supply, nor is substitution likely on the scale necessary.

Although as Forest Managers we must be aware of non-wood demands on our forests, wood production seems certain to remain a primary concern.

Returning to my original question – "Are we too concerned about wood production?" – the answer must be a definite NO.

If anything we should even be more concerned, if only because of the urgent and desperate need to find an alternative supply to replace the tropical hardwoods sawlogs.

REFERENCES

- FAO 1991(a) 1961-1989: 2010 Wood & Wood Products-FAO:39 pp
- FAO 1991(b) FAO Yearbook: Forest Products
- FAO Forestry Services 24:336 pp