

Saturday 14th of May. A field trip is being organized for the Friday with the Conference Dinner in the evening; a well-known celebrity will be the after-dinner speaker. Various events are being organized to interest the family and we hope that people will take the opportunity to stay over Saturday night as golf, walks, and visits to places of interest are being organized.

Plan to be there, as groups of the most appropriate speakers on these topics have agreed to present their views.

NZIF Travel Award – Blair Haggitt

Blair Haggitt used the 1986 award to tour forests in California, Oregon and Washington. His report, which is in the form of diary notes and photographs, gives his observations on fire control, silviculture and forest management. Members may borrow the report from the Secretary, NZIF.

Studying overseas

Council have been asked whether a membership can be suspended while a member is overseas. Council have decided that such a provision is unnecessary; any member studying and not in receipt of a salary can take advantage of student subscription rates. It expects that those on a full salary will wish to retain membership.



Plantation Silviculture in Temperate Regions

Plantation Silviculture in Temperate Regions, with Special Reference to the British Isles. P.S. Savill and J. Evans, 1986. Clarendon Press, Oxford \$NZ102.50, 246p.

The senior author, Peter Savill, is the lecturer in silviculture at the University of Oxford; Julian Evans, who is in the British Forestry Commission, is well known for his 1982 book, "Plantation Forests in the Tropics", and his 1984 treatise on the "Silviculture of Broad-leaved Woodlands". As they state, this book is intended to be a student introduction to plantation silviculture in temperate regions and so stresses underlying principles.

It is a small book (with 210 pages of text) but covers a relatively broad field. There are four sections. The first introductory ones cover such topics as the role of plantations and long-term productivity questions. The second large section covers topics from site preparation and establishment through to tending and fertilizer use. The third section looks into specialized silviculture such as coppice or establishment on waste lands. The final section briefly covers protection — pests, pathogens, fire, wind, etc.

Is it a good textbook for students? Is it a useful book for southern hemisphere foresters? My impression is that it is useful supplementary reading for students as it concisely presents many concepts in a clear integrated manner. The section, for example, on nutrition is one of the better summaries about. Even its emphasis on European ideas and British practices in particular is useful for students in order to help them appreciate a wider range of situations.

Furthermore, the 22 pages of references are very useful for those wanting to delve more deeply.

However, it is not so useful for a for-

ester working in southern hemisphere plantations. It does not contain enough details to be an everyday reference book, nor does it cover the extensive plantation — silviculture research in this part of the world to the depth a forester in this region would expect. Thus its treatment of thinning and pruning is rather basic. Yet, if you were confronted by a problem you had no background in — for example in draining peatland — it could be a most useful starting place. So it's a book worth having a look through and having access to through libraries.

D.J. Mead

Introduced Plants Handbook

Plant Materials Handbook for Soil Conservation — Volume 2 — Introduced Plants. Edited by van Kraayenoord and Hathaway. (National Water and Soil Authority Misc. Pub. No. 94, Govt Printer) (\$49.50).

Let us all rise and take our hard-hats off to clap Chris van Kraayenoord and his merry men of MWD Aokautere, Palmerston North. They have produced a very useful book. What is more, by publishing it at a cost most of our employers will afford they have yielded up to an open society much of the information which in a user-pays world will be hidden behind consultant service charges and available only at competitive (?) prices. They have done the honourable thing.

It is a good book — 300 pages of reference, information and hints for those who must make choices and get things done. What I like most is that the technical notes on which it is based accept that most of us are not very good taxonomists. We know our plants by recognition, as we do our friends, rather than by identification. There are keys, as gui-

des, to the acacias, poplars and willows, and some quite detailed listing of characteristics of some important clones in the soil conservation field.

The colour illustrations, some 250 photographs, are true. The book is not a glossy for the coffee table, but handsome, and the standard of print and editing must be the envy of many publishers. The A4 size allows for space and style.

It is interesting to look up familiar species: *P. radiata* rates eight pages, Douglas fir half a page, the poplars 42 pages, willows 22 — all concise information with emphasis on soil conservation uses. The style is matter of fact without false claims: "The greatest deterrent to more widespread use of black locust (*Robinia*) in New Zealand is the crooked stem form, etc." — how true and how often ignored.

The authors have tried to cover the eucalypts in 20 pages. This publication includes 31 most commonly planted eucalypts, too many to face all at once, but as a catalogue and reference the listing is very useful. I am sure we would use eucalypts more and particularly the timber species if we were more certain as to "Which eucalypt is that?" Students, like foresters, are easily overwhelmed by them. We still need better guides than this which is better set out but no real improvement on the Forest Service publications.

As a handbook for first reference its use is much wider than for soil conservation materials. I look forward to getting hold of the companion volumes — Vol. 1 on field establishment and nursery production of soil conservation plants, and Vol. 3 on the use of 70 native species. If these volumes are as good as Volume 2 they will make a useful trinity.

I say again — let's raise our hard-hats to the authors who have made a significant contribution to forestry in New Zealand, and especially to farm forestry

BOOK REVIEWS

— where most of the interesting forestry is being done in this country.

B. Douglas,
Agricultural Engineering Department,
Lincoln College

'Forest Soils and Nutrient Cycles'

Forest Soils and Nutrient Cycles. P.M. Attiwill and G.W. Leeper 1987. Melbourne University Press \$A29. 202p.

The most valuable feature of this text is the manner in which the authors highlight our lack of understanding — and even the difficulty of measuring — many of the processes which they set out to describe. I believe this stress is warranted, as too often soils and ecology texts gloss over these aspects. This book brings us back to earth.

There are, in my opinion, two other very valuable features. One is the stated objective of looking at forest soils and nutrient cycles from an ecological viewpoint. The second is the concentration on Australian research and its interpretation in the context of a wider world view.

That the book has a strong Australian bias is not unexpected as it has been written as a text for senior students in ecological sciences in Australia. Peter Attiwill, the senior author, a world-renowned scientist in mineral cycling in eucalypt forests, is a Reader in the Botany Department of Melbourne University and has taught this subject to ecologists and foresters. Appropriately, many of the examples have been drawn from his research.

This is not a book to sit down and quickly read through. Further, I do not think it is a book that the average manager of forest lands outside Australia would find very useful. This is only partly due to its emphasis on Australian conditions; but it is also the result of a deliberate policy not to cover all nutrients or topics fully, and lack of a strong management interpretation. It is, however, of value to those involved in research or in teaching the topic. Furthermore, I would recommend it as a source book for prescribed readings to give to students undertaking postgraduate studies. It will help them to learn to question their science and sometimes give them a different viewpoint.

The book has two broad sections. The first is a survey of basic soil science covering topics such as colloid chemistry, organic matter, nutrients and soil classification. The second half looks in greater depth at topics related to growth and nutrient cycles. It also includes a

useful introduction to Australian forests as well as the ecological role of fire. Each chapter ends with a list of references, plus suggestions for additional reading. In some cases I would have welcomed additional references.

I believe the book would have been improved by a chapter — or perhaps a paragraph or two at the end of each chapter — drawing together the main themes. The printing quality of the photographs leaves a lot to be desired.

In summary, a valuable work of Australian ecologists and those interested in the ecology of Australian forests. A most useful book for postgraduate students in forest soils. Not a book for forest managers, particularly those outside Australia.

D.J. Mead

'Compression Wood in Gymnosperms'

Compression Wood in Gymnosperms, by T.E. Timell, 1986. Published by Springer-Verlag, Berlin, Heidelberg, New York, Tokyo. Three Volumes, 2150 pages. \$US398.

After reading this massive work I was left with two overwhelming impressions: deep respect for the enormous labour that has gone into absorbing, sorting, and summarizing the significant facts from a vast literature comprising more than 8000 references, and profound admiration for the scholarship that has been applied to this task. The style of writing is lucid and very readable. So anyone interested in the structure and function of forest trees, or the use of their products, will find much to relish (I use the word deliberately) among the wide range of topics on offer. These cover fundamentals such as anatomy, chemistry, and physiology, but extend to ecological and silvicultural aspects of compression wood formation, as well as its effect on wood use.

When such a vast body of evidence has been assembled, it might be thought that few details remain to be tidied up. This may be true of the anatomy and some aspects of the chemistry of compression wood, but in almost all other respects this book makes it obvious how much remains to be learnt. Many of the results so far are confusing and some downright contradictory. Timell has striven manfully to resolve some of these anomalies. Some gaps he has filled by his own research directed specifically to that end. Some contradictions and confusions he has attempted to resolve by putting the issues into their proper perspective. Indeed, each chapter ends with

General Conclusions that are well designed to consolidate what is known, to point out areas of a genuine doubt, and to indicate the needs for future study.

As a result of these labours, future researchers will be able to proceed from the sound basis of a thorough problem analysis and complete literature search for many years to come. At the same time anyone interested in this topic will be made to realize how inadequate most literature searches have been even in this computer-aided age. They will also be made aware of important results that have been lost or ignored for years, and of research that has been needlessly repeated time and time again. (I write as one who has been guilty of using a literature search to try to fill in the gaps after research has been completed, though I suspect that I have no cause to feel lonely in my guilt.)

The very magnitude of this publication has obviously presented the author with many problems about where to draw the line. By making each chapter self-contained, he has provided a series of studies, each of which can be read on its own, without excessive and tedious cross-referencing. This inevitably involves some repetition, which, in itself, may be the subject of criticism, but I think that in this instance the end justifies the means. Equally, one might question the very thoroughness that characterizes the work as a whole. Was it necessary, for example, to give the life histories and habitats of so many forest insects, or could this section have been reduced to a more generalized discussion of insect damage and its significance for the formation of compression wood? It is easy to raise such quibbles and some may be justified, but the ultimate judgement should be based on how well the book fulfils its function.

In this respect Timell has brilliantly brought us up-to-date on this paradoxical issue which enables gymnosperms to maintain their erect stem form, yet produces one of the most insidious defects to plague wood users. Both of these aspects deserve even more research effort in the future, and this publication points to those directions that are likely to prove most fruitful.

J.M. Harris

'Forest Policy in New Zealand'

Forest Policy in New Zealand, an Historical Geography 1840-1919 by M.M. Roche. Published by the Dunmore Press 1987 as MANZ General Series No. 7, ISBN 0 86469 067 3. 143 pages. \$24.95 including GST.

This monograph is based on the doctoral thesis of M.M. Roche, an Asso-

ciate Lecturer in the Department of Geography at Massey University, and as such is free of any possible professional forestry bias.

For those who are unfamiliar with events leading up to the creation of the independent State Forest Service in 1921 it is a very readable account of the varying attitudes towards "forestry" in a country where the land settlement ethos was paramount and where the dominance of farming as a form of land use remained unchallenged, with few exceptions, until recent times. Foresters and administrators will enjoy reading of the antagonism between the professional exponents of sustained yield management, founded mainly on overseas experience, and politicians who saw the problems as peculiar to New Zealand. For example, the lack of tact and diplomacy displayed by David Hutchins, an eminent forester of the day, brought in as an adviser in 1915, is evident in William Massey's plaint to Sir Francis Bell, wanting to know if Hutchins objected to him as Prime Minister.

The book is in six parts, beginning with an introduction that sets the scene by observing that the historical dimension of many contemporary concerns has not been appreciated or thoroughly investigated, and that such a perspective reveals that some of the issues of the moment (i.e. during the controversy prior to the restructuring of the Forest Service) have been raised by earlier generations. Moreover, to some extent, present events were locked into constraints inherited from the past. The author then sets about achieving his twin objectives – "firstly to explore the antecedents of the contemporary forestry scene, thereby to reveal enduring concerns and impacts, and secondly to examine the place of forest policy and management in the nineteenth century through to about 1919 in order to better understand New Zealand's past".

This he does in four succeeding chapters: –

- Regulation Without Control: Forest Management during the Colonial Period, 1840 – 1876.
- Private and State Tree Planting 1850 – 1919.
- Scientific Forestry and State Management of Indigenous Forests.
- Restoring State Forestry: The Early Years 1896 – 1919.

The last two chapters have their own summaries, and the book is rounded off by a thoughtful Conclusion which relates the past to the near present and implies some sympathy for the Forest Service, "for so long a lone advocate of regulated resource use" being accused of "wanton destruction by public groups who advocated differing conservation goals".

Though short, the book is well structured and to the point. It is well pres-

In our Contemporaries

N.Z. Journal of Forestry Science GROWTH OF *PINUS* *RADIATA* ON RIPPED AND UNRIPPED TAUPU PUMICE SOIL.

By E.G. Moscow and A.W.J. Cullen
Vol. 16 (1): 1986

Studies in Kaingaroa Forest showed that the extra soil volume provided by ripping led to extra tree growth on Kaingaroa gravelly sand, but not on Kaingaroa loamy sand. It was also demonstrated that root growth ceases when soil resistance to penetration exceeds 3 MPa.

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GROWTH RESPONSE OF *PINUS RADIATA* TO FERTILIZER AND HERBICIDE TREATMENT IN A CLEARFELLED LOGGED AND A CLEARFELLED LOGGED AND BURNED *NOTHOFAGUS* FOREST

By K.M. Phillips and K.M. Goh
Vol. 16 (1): 1986

Seedlings in the burned treatments showed less mortality and better height and diameter growth than those in the unburned treatments. Fertilizer did not affect growth rates but herbicide application induced a small increase.

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ented with lists of contents and tables, a comprehensive bibliography and a useful index. A higher standard of proof-reading would have eliminated several spelling errors.

The approach by the author has been to differentiate the official, popular, and scientific viewpoints in the development of forestry policy and to show how these were reconciled, or more correctly, resolved, not always to the satisfaction of the protagonists of a particular line. A future generation would be well served in the year 2000 by an equally diligent researcher adopting a similar technique in analysing the influences at work and what will have been achieved in the second 80 years of forestry in New Zealand.

M.J. Conway

WHAT SITE FACTORS DETERMINE 4-YEAR BASAL AREA RESPONSE OF *PINUS RADIATA* TO NITROGEN FERTILIZER?

By I.R. Hunter, J.D. Graham, J.M. Prince, and G.M. Nicholson
Vol. 16 (1): 1986

Large positive responses in basal area growth tended to occur in stands less than 10 years old, particularly on nitrogen-poor soils and if they had recently been pruned or thinned, with smaller positive responses in older stands and those on soil with total-N > 0.2% and negative responses on soils with Bray-P < 10 ppm.

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CHANGES IN *PINUS* *RADIATA* STEM FORM IN RESPONSE TO NITROGEN AND PHOSPHORUS FERTILIZER

By A. Gordon and J.D. Graham
Vol. 16 (1): 1986

Application of phosphorus leads to thinner bark and a small improvement in form, while nitrogen alone results in a slight deterioration in form. A weak negative relationship between change in form and basal area response suggests that only when basal area response exceeds 35% will average form improve by more than 2.5%.

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GROWTH DECLINE AND PHOSPHORUS RESPONSE BY DOUGLAS FIR ON A DEGRADED HIGH- COUNTRY YELLOW- BROWN EARTH

By M.C. Belton and M.R. Davis
Vol. 16 (1): 1986

Superphosphate increased needle nitrogen content, but no response was obtained to nitrogen applied as urea either alone or in combination with other nutrients. Immobilization of urea-nitrogen in soil organic matter may have contributed to the failure of trees in the field trial to respond to nitrogen.

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