

Who should purchase this book? I recommend those involved in managing New Zealand preserved heritage will find this book a very useful reference. Similarly those who have an interest in the flora of New Zealand and in ecological ideas will find it invaluable. Its easy readability, without an over-dramatic flowery style, also makes it an interesting book to the non-specialist yet serious reader.

D.J. Mead

Pinus radiata plantation soils

A Technical Classification for Soils of *Pinus radiata* plantations in Australia: Field Manual. Edited by Nigel Turvey. Bulletin No. 6, School of Forestry, the University of Melbourne. 1987. 15BN 0-86839-613-3

This bulletin was produced by a working party within the Soils and Nutrition Research Group of the Australian Forestry Council. The objective was to provide forest managers with a tool to classify their soils. This would assist in stratification of forest areas for wood production yield predictions, silvicultural operations and help in extrapolation of research results.

The basis of the system is to classify soils by a series of easily described attributes –

- Group A
 - Parent rock
 - Primary soil profile form
 - Depth to and type of impeding layer
- Group B
 - Texture of surface
 - Surface soil condition
 - Degree of weathering
 - Nature of subsoil

Group A attributes were chosen to provide generalized soil information for planning purposes while those of Group B should provide detail to assist the management of the soils. As such the technical classification is not intended to predict stand growth, but rather form the basis of a soils information framework on which to build other information.

The bulletin describes the system, comments on the reasons for choosing the attributes but does not go as far as describing in detail how the forest manager would use the system in the field. It is therefore not a full field manual, the actual field techniques being left for training courses.

This book will interest those involved in integrating plantation management with land-based data systems. It describes a system but does not evaluate it – this is the subject of other papers by the editor.

It would be interesting to try the system in New Zealand and other countries. It should be easy to use and does not require large backup services for laboratory analyses.

D.J. Mead

Exotic forest description

“A National Exotic Forest Description System” J. Collins, F. McGregor and J. Novis.

Ministry of Forestry, Working Paper No. 3.3, Wellington; March, 1988; iii + 107 pp. (\$27.50 NZ, \$45.00 overseas)

This is the fourth in a series of statistical reports about New Zealand's plantation resources. The design, collection and summary reporting of these statistics was originally set up under the auspices of the New Zealand Forestry Council. When that organization was, unhappily, disbanded in December 1986, the Ministry of Forestry was charged with assuming responsibility for maintaining and disseminating this vital data base. The information gathered pertains to species group, area, ownership, age, crop history, silvicultural and terrain attributes, yielding capability and location. The summary report contains information on areas, volumes and current annual increments in volume by five-year age class and county, which figures are then disaggregated first into four species groups (radiata pine, accounting for 89% of the total area, Douglas fir – 5%, other introduced conifers – 5% and introduced hardwoods – 2%). The report indicates that, at April 1, 1987, there were 1.154 million hectares of plantations in New Zealand with a total stem (but not realizable merchantable, of course) volume of over 200M m³ growing annually at more than 21M m³. There are further disaggregations by intensity of silvicultural tending with or without production thinning. Gone, however, are the breakdowns by ownership and terrain class, but as all the disaggregations are not hierarchically structured anyway, this is not a serious loss. Potential users of the information, provided that they comply with confidentiality requirements, can gain access to certain raw data at the United Council level of aggregation, and they will need to do so if they are to make any headway with regional planning or other wood supply modelling exercises.

Describing any significant resource is obviously an ongoing process in which attempts to refine information should always command a top priority. It is pleasing to note that such an approach has been adopted in this case. Changes

have been made through arranging to collect 77% of the data directly from major forest owners: by extending this most valuable co-operation of owners, a target of 90% can likely be achieved. The remaining 10% of forest area will continue to be a formidable challenge in accurately determining reliable statistics in the absence of any continuous forest inventory programme, unless they can be gathered appropriately from other statistical survey sources.

Standard regional yield tables have been substituted for those provided previously by the owners themselves. I have no quibble with this move, but have some concern that there is still no provision for ascertaining the volumes actually realized with which to calibrate the yield table estimates. While there is a need to reduce the number of yield tables to provide indicative estimates of volume, the progressive refinement will be hindered by a lack of knowledge of both actual realizations and the best forecasts, if available, that the individual owners can give. It is most unsatisfactory that estimates of actual roundwood removals quoted in publications such as “Statistics of the forests and forest industries of New Zealand” have to be derived backwards from conversion factors applied to the outturn of final manufactured products. Working Paper 3.3 makes an acknowledgement of the problem, but offers no hope of possible solutions.

Whatever the mechanism for estimating removals that is finally adopted, these should be broken down by log category, species and ownership, i.e. similar to the plantation resources. Moreover, information on costs of all forestry and forest industry operations should also be surveyed and reported on, together with manpower and equipment productivities. Considerable benefit for researchers involved in sector studies would also be derived from knowledge on suitably aggregated regionally averaged data on plant capacity, plant production, raw material conversion factors, average transport distances, port costs, port capacities, regional consumption patterns, wood prices (domestic and export), energy consumption, energy costs, and so on.

Such additional information is vitally important to sector researchers for evolving national strategic plans to make effective use of the greatly increasing plantation wood supplies. It is to be hoped that the Ministry will strive to ensure that planning in and for the sector is based on a consistent framework of accurate and up-to-date data pertaining not only to resources in the forest but also to other knowledge relevant to the forest sector. The improvements made

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