

height on sloping ground on the highest side of the tree (page 17). Also, the proof given of the angle count theory is not strictly correct, and comprehension of it is made difficult by calling the vane on an angle-gauge a "length of material,  $2L$ ".

The book is very clearly printed, but the ends of the lines are not vertically aligned, and this, together with the binding of low quality, detracts from its appearance. The editing is of a reasonably high standard, but the use of "in" instead of "in." several times on pages 150, 151, and 153 puzzled me quite a bit.

The value of this book to foresters lies in the simple but important message that current mensurational practices should be critically examined before far-reaching management decisions are made. Foresters will not always find either remedies or better alternative practices in Dr Carron's book; but if they will carefully digest what he says, and if they are stimulated by him to review their own current mensurational practices (as they should be), then the book will serve a very useful purpose.

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THE ECONOMICS OF FORESTRY WITH PARTICULAR REFERENCE TO POLICY AND MANAGEMENT. Papers Presented at a Foresters' School. August, 1968. University of New England, N.S.W., 117 pp. Price A\$1.20.

The fourteen papers published here cover many aspects of forest management which are of equal interest in New Zealand, ranging from land use, methods of economic evaluation, end-use requirements, silviculture, to trade and policy. They are of high standard, and the volume could well be read by many forest managers here.

The papers which the reader will turn to first — because of his natural interests — are juxtaposed with those of associated fields which might otherwise be missed if they were published separately. In this way a silviculturist keeping tabs on Lewis (and all ought to) will be led via a solid demonstration by Lugton of Faustman technique (vindicated by economist Dillon) to the newer ideas of critical path analysis and simulation presented by Turner, exemplified by Curtin by an analysis of thinning.

Students should be grateful for the large number of examples of forest economics calculation presented. The tables of statistical data are equally useful and much material is drawn together here which is otherwise scattered or sometimes unavailable.

The case for New Zealand's share of the Australian market is strongly presented in Thomson's paper, but there are signs in Yoho's summary that Australia is altering its target of self-sufficiency. There are signs that in 2010 self-sufficiency may be more than attained. It is difficult to work out from Jacobs' paper whether the high *per capita* sawnwood consumption of 200 bd. ft projected for 2000 A.D. has been reduced or not. Henry's paper implies that it still stands, but 120 bd. ft is

considered appropriate for New South Wales. The definitive figure appears to be a target of at least 3 million acres of softwoods by the year 2010. Yoho's views on the New Zealand potential to supply are surprising, to say the least:

"... it seems far from assured that enough N.Z. land will be devoted to forest production to enable that country to continue to expand its timber exports. My apprehensions on that point are attributable to the keen conflict in land use between agriculture and forestry which plagues your neighbour across the Tasman".

Such a comment should be referred to the New Zealand Minister, one feels, for an authoritative rebuttal, as assuredly it will be used to justify Australian lack of reliance on New Zealand supplies. A further point made by Yoho is that New Zealand argued first for afforestation for self-sufficiency, and "Now, without apparently having won this point fully, they appear in the eyes of many influential laymen with whom I have spoken to be arguing that *the same* [my italics] expanded forestry program will readily generate an export surplus . . ." No doubt this is meant seriously, so it follows that we have to sustain the maximum effort to present forestry's case in New Zealand if the influential laymen referred to have missed the point. This reviewer, however, puts the statement in the same class as the Australian authorities' one "... that the present forest resources of N.Z. are inadequate to meet the likely needs of N.Z. [by 2000]" — namely, it may be true, but as it totally ignores any further planting, is hardly useful. Yoho pointed out the most important omission in the Australian papers (as in New Zealand projections) is the effect of price on demand. Sawn timber prices have increased in real terms whereas pulp prices have increased only slightly.

The impressions which emerge of Australian forestry are of a determined drive for greatly expanded areas; in large blocks (in N.S.W. at least); concentrating on radiata pine; with a considerable awareness of economics. The calibre and number of the foresters and forester/economists are both high, and future competition — in trade, management and professional achievement — will be formidable.

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