

For the calculation of volume the mean tree method was used and is compared with the volume line method. It is pleasing to note that completely subjective selection of the mean trees was avoided by a method which, although allowing a certain element of subjectivity, should not result in any bias. It is also pleasing to note that only essential calculations were carried out in the field and all computing which affected the volume estimation was left to the office. Sample tree merchantable volumes were obtained from a multiple regression equation based on basal area over bark, total height and their product.

From the time point of view, the assessment must compare more than favourably with orthodox line strip methods, but one wonders what the increase in precision would be had the number of enumeration sweeps been doubled by making the sweeps in pairs, say, one chain apart, but with the same amount of recording of sample trees, etc. Obviously the increase in time should be negligible; with a suitable angle-count factor a sweep can be made within one or two minutes and far more time would be taken up in tree measuring and moving from plot to plot.

The data obtained were used to derive stand volume tables, the "Australian equation" being compared with the "combined variable equation". Other interesting items such as the reliability of photo interpreted heights and the difference between predominant height and height corresponding to mean stand diameter are given attention.

The paper therefore demonstrates the feasibility of assessment by aerial photography and angle-count sampling in planted coniferous forests. The advantages seemingly outweigh the disadvantages but one is left with the feeling that there are more ideas to be tried and that there is certainly room for greater publication of methods and ideas which have been used and have failed to give satisfactory results.

On the whole the paper is clearly written and contains sufficient detail for one not greatly familiar with either mensurational or statistical techniques but has not fallen into the pitfall of oversimplification. This, of course, tends to break the continuity but this is compensated for by clear and concise statements of purpose and results at both the beginning and end of the paper.

W.G.W.

INTERNATIONAL GLOSSARY OF TERMS USED IN WOOD

ANATOMY. Prepared by Committee of Nomenclature, International Association of Wood Anatomists published in "Tropical Woods" No. 107, October 1957. Pages 36, Figures 1. Price to Members of the Association \$0.15 (\$0.20 covered); price to non-members \$0.30 (\$0.40 covered).

The English version is the fore-runner of a multi-lingual, illustrated glossary to be prepared by the Association. Urgency was accorded the version under review in order to meet the needs of the British

Commonwealth Forest Terminology Part II. A number of members of the Association (I.A.W.A.) contributed suggestions for amendments to the list prepared by Dr L. Chalk and published in the I.A.W.A. News Bulletin, September 1954, but the working committee chaired by Dr Chalk has completed the task of collation.

The definitions are commendably brief. Absence of illustrations reduces the value of the glossary to those relatively inexperienced in wood anatomy, but Institute members will be grateful for the clear definitions given for items relating to the gross structure, for example, "heartwood" is distinguished from "Intermediate wood" and the true "sapwood". No instances have been remarked where modification of terms is required for New Zealand.

J.S.R.

FOREST NURSERY PRACTICE IN THE LAKE STATES. By J. H. Stoeckeler and G. W. Jones. Agriculture Handbook No. 110, Forest Service, United States Department of Agriculture, Washington, D.C. 124 pp. Price \$2.

In 1953, 27 nurseries in the Lake States of Michigan, Wisconsin and Minnesota had a total outturn of 67 million trees. This book is a round-up of research results and current practice there, with occasional comments on desirable policy.

All aspects of nursery work are covered, including collection and extraction of seed, selection of site, development of nursery, machinery, seedbed preparation, raising of seedling stock, transplanting, nursery protection, insects, lifting, grading and packing. There are 38 tables, 63 figures or plates and a bibliography of 193 items.

The value of the book in this country lies in its presentation of a comprehensive background of nursery work. Differences from New Zealand conditions and species cause much of the text to be not directly applicable. Some of the references are rather old (there is none later than 1955) and it is not always clear whether the technique referred to has become standard practice. Nevertheless there is a mine of useful information not otherwise easily accessible to the nurseryman. In the absence of any sort of manual pertaining to nursery work in New Zealand this book will be a useful reference and will at least indicate a framework on which a local compendium can be based.

H.V.H.