

BOOK REVIEWS

WOOD DENSITY IN CONIFERS by G. K. Elliott, 1970.
Technical Communication No. 8, Commonwealth Forestry
Bureau. 44 pp.

As one who has spent a good part of his working life measuring and analysing variations in wood density, the reviewing of this bulletin provided me with many moments of fragrant nostalgia. Admittedly the emotional content might not be so apparent to people with less idealized interests, but Dr Elliott has certainly produced a comprehensive review of the subject which should be of interest to anyone who is concerned about the sort of wood (and not only about the volume of wood) that is being produced by our coniferous plantations — and I hope that this might include the majority of our membership.

Review articles on subjects that have attracted as much attention over the years as wood density do not usually make for effortless reading. The inevitable long strings of references interrupt the easy flow of even the most straightforward prose. In this respect *Wood Density in Conifers* overcomes most of the problems with seeming ease. The grouping of topics develops the subject logically and simply: matters as diverse and contentious as the effect of growth rate on wood density, or density of the solid fraction of wood, are dealt with in a lucid and constructive manner.

Dr Elliott notes, quite rightly, that there is no shortage of review articles on this subject, but justifies his own contribution by pointing out that it comes at a time of significant progress in the technology of measurement and sampling. It is from this viewpoint that a look at past achievements and future prospects is, indeed, most timely. There is a tendency for traditions to build up in research to the point where they can have a stultifying effect on new techniques. His statement that "There is a need for innovation if the full potential of present knowledge . . . is to be exploited by the forest manager" is one that applies equally to the wood technologist, forest researcher or practising forester.

When indicating the important problems that remain to be solved, Dr Elliott stresses the need for a better understanding of the physiology of wood formation, and of the heritability of wood density expressed as genetic gain. He also suggests that further efforts should be made to describe the whole-tree variation in mathematical terms. Though few would deny the value of such work, there is one field of study which surely deserves priority over all others. Lack of information on the economic value of wood quality variables unfortunately limits the application of much of the data now available. Thus, my main criticism of this excellent bulletin is that the author should have given greater stress to economic aspects of variation in wood density amongst his recommendations for future studies.

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