

THE PLANNING OF MANAGED FORESTS BY THE EXPERIMENTAL METHOD AND ESPECIALLY THE CHECK METHOD. By H. E. Biolley. Translated from the French by Mark L. Anderson. The Scrivener Press, Oxford, 1954. 72 pp. Price 7/6.

Biolley's paper was first published in 1920. It is an exposition of the "control" or check method of management that was largely developed by him in the silver fir/spruce selection forests of the Swiss Jura. In brief, the aims of the method are to produce as much timber as possible, of optimum quality, with resources reduced as much as possible. The basic steps are the division of the area into small compartments and complete enumeration of the growing stock over 7 ins. d.b.h. at intervals of five to ten years. From the enumeration figures and the amount exploited during the last period the increment interest rates are calculated and compared with those of compartments which appear, from personal experience, to be in the most favourable condition. A provisional arbitrary figure has been chosen for the relative proportions of small, medium, and large size timber. From a comparison with the two "target" standards a cutting regime for the next period can be drawn up with the object of converting the compartment gradually to a stocking that approaches the provisional optimum figures. Data are given from forests managed under the check method for thirty years which show that the increment rates can be greatly increased, both by reducing the growing stock, or allowing it to accumulate, according to the original condition of the compartment.

More concise and more objective descriptions of the check method than Biolley's can be found in modern textbooks of forest management. The New Zealand forester is not at present concerned with the selection system, although the first signs of movement towards mixed and irregular working can be seen. For him the value of this work lies in its insistence on the principles on which the check method was founded—full utilisation of the site, close personal contact with the stands allied with frequent stocktaking, and a system of management where silviculture is not subordinated to inflexible yield prescriptions.

—H.V.H.

GENERAL VOLUME TABLE FOR *PINUS RADIATA*. By D. A. N. Cromer, G. A. McIntyre, and N. Lewis. Forestry and Timber Bureau (Canberra). Bulletin No. 33.

The authors present a form class volume table for *Pinus radiata* for estimating volume inside bark to a 4 in. top inside bark. It is intended for South Australia, but the authors believe it would be accurate in other countries where *P. radiata* is grown.

The table gives volumes all of which must be corrected for taper inside bark between 5 and 15 ft. above ground and for bark thickness at 5 ft. Unlike the New Zealand Forest Service form class volume

table for exotic conifers (N.Z. For. Svce. Tech. Pap. No. 7, 1955) the Australian table cannot be used as a two-dimensional volume table for common or average measures of form and bark thickness. On the other hand it is easier to use in the field as the upper diameter measurement is taken at 15 ft. from the ground instead of at half height.

The preparation, accuracy, and use of the table are explained fully in an introduction. There is, I think, one small omission: it is necessary to look up one of the earlier published papers listed by the authors to find out that the volume of the sample trees used to prepare the table was calculated in 10 ft. sections from Huber's formula. This could have been briefly explained in this bulletin.

The Australian table is not as widely useful as the New Zealand one, which can be used for all exotic conifers and for volume standards other than to a 4 in. top, but it is easier to use and should be ideal for South Australian conditions.

—G.D.

NEW ZEALAND NATIVE PLANT STUDIES. By William C. Davies. 328 pp. including 140 plates, + 2 maps. Wellington. A. H. & A. W. Reed, 1956.

This book appears at first glance to be a miscellaneous collection of photographs accompanied by explanatory notes, and its nature inevitably renders it somewhat disjointed. The text, which can be read through in two or three hours, is arranged in ten chapters, each of which provides a short introduction to some aspect of New Zealand plant geography, ecology, morphology, or taxonomy. There are a few typographical errors which should not have escaped the proof-reader, and in some places the arrangement is confusing, but on the whole the presentation is of a high standard.

In his preface, Davies approaches his subject with great modesty. As he explains, his photographs are "largely the product of a labour of love during vacations and other leisure time." He intended the book to serve as an illustrative complement to previous publications, and expressed the hope that it would promote a wider knowledge and appreciation of the affinities, the diversity, and the beauty of New Zealand plants, and would thereby contribute to their preservation. Students familiar with the writings of Cockayne will be disappointed if they expect it to widen their botanical knowledge, but one would be unfair to condemn it for failing to do something which it was never meant to do. On the contrary, it may stimulate the interest of many a newcomer to the vegetation of New Zealand, and it will fascinate and delight the enthusiast whose botany is of a sentimental sort.

The photographs are admirable. For the most part, they portray the plants well; many of them convey something of the intrinsic beauty of form, texture, and pattern of the subjects; and, for anyone who knows and loves the haunts of the true natives of this land, there is