The final section under management is titled "The Forest as a Business". Although much of this information is peculiar to United States forestry, particularly the chapters covering taxation and labour contracts, the general principles of sound business management apply equally well in New Zealand. To manage a production forest with great technical skill is insufficient if the product is not saleable or a reasonable profit is not realized from such sales.

In the appendix four management plans are given, each with an accompanying critique. These plans, particularly the ones covering the larger forests, require careful examination but they do serve to illustrate the type of plan the authors consider desirable.

This is a book which should be of value to any practising forester and is worthy of a prominent place in his library. It is extremely well written, being clear and concise, with the various sections following on logically one from another. The classical methods of forest management are not discarded; rather are they tailored to present day conditions where markets call the tune. The book could be improved by including a glossary of technical terms, particularly those not commonly used outside North America.

—G.M.O'N.

EXOTIC FOREST TREES IN THE BRITISH COMMONWEALTH by R. J. Streets; edited by Sir H. G. Champion. 1962. Clarendon Press, Oxford. 750 pp. U.K. price 63s.

This book is a compilation of reports submitted to the Seventh Commonwealth Forestry Conference in 1957. It is designed as a revision of the original work on the subject, Troup's *Exotic Forest Trees in the British Empire* (1932).

The first 116 pages contain brief general descriptions of the natural forest, climate and soil, afforestation techniques and exotic species used in the reporting countries. The remainder is devoted to information on the performance of individual species. There is no detailed study of the factors which govern the introduction of exotic trees, but useful data on climate and soil are included when provided by the contributors.

A symposium such as this stands or falls by its participants. The compiler has generally been well served, especially so by excellent reports from South Africa, Australia, Southern Rhodesia, Malaya, Great Britain and New Zealand. All reports have been summarized, and partly paraphrased in the process, but a detailed examination of entries pertaining to New Zealand shows that nothing of high importance has been omitted. It seems therefore that the compilation has been efficiently done; careful attention has been paid to nomenclature, and proof-reading has been excellent. The result is a wealth of information on a huge variety of species, both tropical and temperate.

A liberal view has been taken of what is a forest tree. With entries on such trees as *Ginkgo, Jacaranda,* and *Metrosideros tomentosa,* there is something here for the arboriculturist as well as for the production and protection forester.

It is unfortunate that the compiler has seen fit to retain Hoppus feet for volumes in Britain and Hoppus super feet for some of the Australian data; true cubic feet are used elsewhere. There is a conversion table to cubic feet as an appendix but a work of this

nature should use a common scientific unit rather than encourage parochial local customs.

Some readers will wish to consult all information that is available, so that a surprising omission is a list of contributing reports and their authors.

A valuable work for all seekers of information on exotic introductions or comparative yields.

—H.V.H.

THE SOIL UNDER SHIFTING CULTIVATION by P. H. Nye and D. J. Greenland. 1960. Technical communication No. 51 of the Commonwealth Bureau of Soils, Harpenden. Commonwealth Agricultural Bureaux, 140 pp., 12 tables, 16 photos. U.K. price 20s.

This compact volume contains an expert account of soil fertility under the practice of shifting cultivation. The list of 340 references indicates the wealth of material drawn upon for this review and the authors have added much from their own research and experience.

Part I deals with the fallow period and discusses the range of fallows and soils, the amounts of nutrients in these, the nutrient cycle and the restoration of fertility under the fallow. Part II covers the cropping period and discusses the effect of clearing and burning and the decline in fertility under cropping. The significance of the whole practice of shifting cultivation is also considered briefly.

A large amount of quantitative data is contained in tables and text. Although most of this material is concerned with tropical soils, and in particular those of Africa, there is much of interest to foresters in temperate regions. New Zealand foresters concerned with the use of fire in the conversion of indigenous forest will find much valuable information in the chapters dealing with the effect on the soil of clearing and burning the moist evergreen forest.

Those with a general interest in land utilization should read this book. Soils influenced by shifting cultivation cover a vast area. The extent of the practice is impressively outlined by the facts that over 200 million people spread over 30% of the world's exploitable soils obtain the bulk of their food by this method. Shifting cultivation is not confined to the tropics and was practised in Western Europe up to the Middle Ages.

Although this account is addressed primarily to soil men, foresters should not find it too technical and the reader is greatly assisted by the concise summaries found at the end of many sections. The photographs are excellent.

The authors do not hesitate to criticize the findings of a 1957 FAO publication which categorically condemns the practice of shifting cultivation. The dangers and difficulties are appreciated but they remark that ". . . in the African tropics we have failed to introduce to the forest regions any method of staple food production superior to the system of natural fallowing used in shifting cultivation". In a later section they suggest that "in an ideally planned economy the forest lands would be left to produce timber or the perennial cash crops like cocoa and rubber for which they are so well suited. . . ."

—A.E.B.