

BOOK REVIEWS

THE CONIFER MANUAL, VOL.1

by H.J.Welsh

Kluwer Academic Publishers, The Netherlands. 1991
436 pages. ISBN 0-7932-0616-3. US\$179.50

There are now several modern manuals on conifers (or gymnosperms). This is, of course, the group of plants to which pines, so important to New Zealand forestry, belong. Most of these manuals, however, are written from a horticultural rather than a forestry viewpoint and this manual by Humphrey J. Welsh is no exception. It is based on his lifetime of experience as a nurseryman and his involvement as International Conifer Registrar. His objectives include bringing the taxonomy into line with current practice, supplying identification keys, providing extended easy-to-use species description, and bringing the coverage of cultivars up-to-date.

Volume 1 covers 41 genera arranged in alphabetical order from *Abies* to *Phyllocladus*. Volume 2 will cover the remaining genera from *Picea* to *Widdringtonia*, propagation, pests and diseases.

The first chapter is an introductory one in which the word conifer and the origin and spread of conifers are briefly discussed and their morphology is covered superficially. For this section a few drawings of the structures would have aided the reader.

Chapter 2 titled the "Uses and Value of Conifers" makes it clear at the beginning that this book does not cover the role of conifers in afforestation but is confined to amenity uses. Hedges and shelterbelts are mentioned but the rest of the text deals with dwarf conifers, alpine forms, seedling mutations, bud mutations, juvenile fixations, witches brooms, and "cultivarients".

The third chapter, consisting of only two pages of text, is titled "Choice of Species and Varieties". In this chapter the climatic and hardiness ratings are discussed and there are "hardiness zone" maps of the British Isles, Europe, and North America. The map of Europe presumably refers to ranges of mean annual minimum temperature rather than the "mean annual temperature" as stated. This chapter will be of little interest to those outside Europe and North America.

Chapter 4 on "Cultivation" covers the topics of soil preparation, purchase of plants, planting, aftercare, watering, and pruning. Sound advice is offered on selecting trees, with a strongly worded section on the poor root systems all too often found on container-grown conifers.

In the historical review of conifer classification and nomenclature in Chapter 5 the author states that the two publications by John Silba "International Census of the Coniferae" (1984) and "Encyclopaedia Coniferae" are taken as the basis of the present work. Unfortunately, these two publications of Silba's are full of errors and strangely concocted common names

such as “Bidwill Haloberry” for *Halocarpus bidwillii*. Some of Silba’s errors have been repeated by Welch, e.g., omission of the North Island in the distribution of *Halocarpus bidwillii*, but “Tarwood” given as its common name appears to be his own invention.

Some simple guides to identification are provided in Chapter 6 which would assist the reader to identify many conifers to genus, and it includes illustrations which are generally of good quality. The rest of the volume provides a description of each species, a comprehensive coverage of cultivars in the genera from *Abies* to *Phyllocladus*, and an index. Conifers from the Southern Hemisphere barely rate a mention unless they are cultivated in Europe or North America. Lawson cypress (*Chamaecyparis lawsoniana*) and its many cultivars, for example, occupy 31 pages while kauri (*Agathis australis*) is briefly and inaccurately described in eight lines (leaves are alternate or subopposite but never in opposite pairs). A more thorough proof reading would have removed many of the numerous errors detected. Several names are misspelt, for example *Halocarpous bidwillii* (p. 322) for *Halocarpus bidwillii*.

The text contains a number of anthropomorphic and teleological expressions, e.g., “species that ... laughed”, “to secure this happy event” (referring to plant reproduction, p. 14), and a plant that “wakes up slowly”, which while providing colour are somewhat inappropriate in this type of publication.

Other recent conifer texts such as those by Krussman, Vidakovic, and Rushforth provide more accurate and reliable general guides to conifers and their identification. The value of the “Conifer Manual” lies in its comprehensive coverage of cultivars. It should be of most interest to horticulturalists, nurserymen, and others particularly interested in conifers for amenity purposes.

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ARMILLARIA ROOT DISEASE

Edited by Charles G. Shaw III and Glen Kile

Agriculture Handbook No.691, Forest Service United States Department of Agriculture, Washington, DC., United States. 1991. 233 pages. Available from USDA on request at no charge.

This book is a compendium of the enormous amount of work done on Armillaria root disease over the past century or so. The editors and the authors (24 of them, from three continents) should be congratulated on their achievement in producing this comprehensive work.

There is a major flaw in the work, though, and the blame lies entirely with the editors, who have made a most peculiar decision regarding the use of botanical names. Linnaeus and countless authors since have laboured in vain as far as these two men are concerned. Higher plants are identified by common names, and common names alone, throughout the text, with the botanical names relegated to an appendix (and then not without mistakes—I have not met anyone who calls *Agathis australis* “Queensland kauri”). This custom is regrettably far too