NORTH AMERICAN HARDY TREES AND SHRUBS

Manual of Cultivated Trees and Shrubs Hardy in North America

Exclusive of the Subtropical and Warmer Temperate Regions. By Prof. Alfred Rehder. Second edition, revised and enlarged. Pp. xxx+996. (New York: The Macmillan Company, 1940.) 42s. net.

THE first edition of this notable work appeared in 1927 and set a new standard for its kind. A nineteen-page supplement of corrections and emendations appeared in 1935. The original issue is now exhausted, and as in the interval new species and hybrids have been named and introduced and the cultivation of others extended, the new edition now includes more than 2,500 species fully described, with 2,685 varieties, and 1,940 species and hybrids briefly mentioned.

The small half-page map illustrating zones of hardiness in the United States has been replaced by one partly coloured facing the title-page. In the process of revision certain alterations have been made. Monocotyledons have been placed at the end instead of immediately preceding the Dicotyledons, and the bamboos subdivided into ten instead of three genera. Original authors are cited in parenthesis (for example, *Petrophytum caespitosum* (Nutt.) Rydb.), a practice which may assist in tracing descriptions or illustrations. varietal and other subdivisional epithets now immediately follow the specific name, the category proposed by the first author of a trinomial being placed immediately after it (for example, *Ribes alpestre giganteum* Jancz., var.). This is to avoid making numerous new combinations, since the author does not always agree with the conclusions of other botanists.

Sequoiadendron has been separated from *Sequoia*, *Halimium* from *Helianthemum*, and *Weigela* from *Diervilla*, all with good reason. There is a considerable increase (twenty-four species) in *Rhododendron*, reflecting the spread of this genus into American gardens. Some additions noticed are *Carmichaelia australis*, the hybrid *Caryopteris clandonensis*, the monotypic genus *Kalmiopsis*, the bi-generic hybrids *Gaulthetia* and *Pyracomeles*, etc.

It is Prof. Rehder's intention, however, to publish a bibliographical supplement which will include not only exact citations of their source for all names and important synonyms mentioned in the "Manual", including both varieties and forms which are often difficult to trace, but also, in the case of trinomials, the category considered to be botanically correct.

In a work of this magnitude and detail typographical and other errors are almost unavoidable, although of the former many have been corrected since the earlier edition. *Muhlenbeckia* instead of *Muehlenbeckia* in the index, on p. 579 *Parsonii* for *Parsonsii*, and on p. 887 *Bambusa metake* for *Metake* are examples.

The spelling of certain specific names is apparently not always in accordance with the Rules. Instances are *Pyrus kumaonensis*, *Rhamnus Erythroxylon*, *Rosa Lheritierana* and *Spiraea Billiardii*.

A few authors are incorrectly cited, for example, *Prunus tangutica* Batal., for Koehne, *Lavandula latifolia* Vill., not Linn., and *Daphne hybrida* Sweet, not Lindl. Some recent changes in nomenclature have not been taken up, such as *Magnolia heptapeta* (Buc'hoz) Dandy, *Betula platyphylla* Sukatchev for *B. mandshurica* (Reg.) Nakai, and *Ulex minor* Roth for *U. nanus* Forst. The dates of introduction to cultivation are not always accurate; for example, *Forsythia Giraladiana* was introduced by Farrer in 1914, *Euonymus oresbius* and *Berberis sublevis* by Forrest about 1919, whilst *Orphanidesia* has been growing in England for some years, although only lately figured. The flowers of *Magnolia Dawsoniana* are now known and have been described. On p. 562 the derivation of *Glossopetalon* is supplied instead of *Forsellesia*, and *Rubus japonicus* Linn. is cited on p. 406 as a synonym of *Kerria japonica* (Linn.) DC., instead of the much more common *Corchorus japonicus* Thunb.

For the most part, however, these are comparatively small points which can be corrected as they are discovered. A more definite want, particularly to British users of the book, is the omission of a number of genera and species hardy in many parts of these islands and almost certainly equally hardy in Zone VII of Prof. Rehder's map. *Azara*, *Desfontainea*, *Fabiana*, *Corokia* and *Mutisia* come to mind, while *Cytisus Battandieri*, *Ceanothus rigidus*, *Telopea truncata* and *Viburnum Tinus* should certainly be included.

Apart from these criticisms it is scarcely possible to over-estimate the value of this comprehensive and laborious work to those whose work or hobby brings them into close contact with trees or shrubs. Nurserymen, botanists, foresters and amateur gardeners can all learn from it, and if it was more widely utilized there would be a great improvement in the general nomenclature of woody plants in cultivation. The new "Manual" is a most welcome addition to the bookshelf, and will become the same guide and authority which its predecessor has been.

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