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Book Review

Watson, Gary, and E.B. Himelick. *The Practical Science of Planting Trees.* International Society of Arboriculture, Champaign, Illinois, U.S. 250 pp. ISBN-13: 978-1881956730

In 1943 the National Shade Tree Conference published Transplanting of Trees and Shrubs in the Northeastern and North Central Regions of the United States. This publication was revised in 1958 and later rewritten by E.B. Himelick in 1981 as Tree and Shrub Transplanting Manual, which was in turn revised in 1988 and 1991. In 1997, Gary Watson of The Morton Arboretum collaborated with Himelick to release an updated version under the title, Principles and Practice of Planting Trees and Shrubs, published by the International Society of Arboriculture. This version differed from its predecessors by virtue of the use of research publications to support the practices endorsed and recommended by the authors. It is this version that I first saw, and at the time I recognized it as making an extraordinarily valuable contribution to the disciplines it serviced, not only arboriculture, but also ornamental and landscape horticulture more generally. I have no doubt that many other readers have read and used this excellent book as well.

Now, Watson has re-edited the 1997 text and authored *The Practical Science of Planting Trees*, again with ISA as publisher. As was the case with the earlier versions of this book, a review team of academics and practitioners was used to comment on the material as it was prepared for publication.

The approach taken in this new version builds on that used in the 1997 publication, but the content has been extensively rewritten and reorganized. The web of interactions that practitioners must understand and manage in order to successfully plant and establish a new tree are presented in a logical, sequential order, and the chapter titles are written as learning or performance outcomes—rather than as simple content titles. As examples, Chapter 1 is "Understand the challenges of planting on urban sites" and Chapter 7 is "Make sure the new roots get a good start." While this might seem a bit folksy, the quality of the material presented in the book is excellent, and is based on a very thorough use of the published scientific literature that underpins tree planting. Reflecting the research that has been published since 1997, *The Practical Science of Planting Trees* cites 639 references compared with 346 in the previous edition. New technologies, such as structural soils, are included as is an enhanced section on the causes and consequences of deep planting. Most importantly, the book has an index, which will make sourcing information much more straightforward than it was in earlier versions.

Practitioners in warmer parts of the world might argue that the focus of the book, as in earlier versions, is still geared toward practices in the northern and eastern parts/regions of the United States, which is undoubtedly where a very large audience for the book resides. However, Watson has presented considerably more information on the issues surrounding container-growing of trees than was available in earlier versions, and has included more interpretive information that is appropriate for regions with warmer and/or drier climates.

In addition to the extensive rewrite and the updated reference list, *The Practical Science of Planting Trees* looks good. Most of the photographs (many of which are new to this title) are in color and new line drawings are used to illustrate things that don't photograph easily.

If you have never seen this book, I warmly recommend it to you. It will form an excellent basis for sound tree-planting practice and also give you an insight into the science of tree planting and the practices that are derived from, and are based on, that science. Even if you have an earlier edition, I still think it is worth updating to the newest version, if for no other reason than it has incorporated the results of the significant body of research that has

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been published in the 16 years since the previous edition's release. The world's cities need more trees, and *The Practical Science of Planting Trees* provides an extremely valuable introduction to the body of practice that can help make that happen.

Reviewed by: Peter May University of Melbourne, Burnley Campus Faculty of Land and Food Resources Richmond, Victoria 3121 Australia