**Book Reviews**


When I was asked to review another book in Timber Press's The Gardener's Guide to Growing series, I assumed I would get a book very similar to the book on peonies I reviewed. This book, The Gardener's Guide to Growing Penstemons by David Way and Peter James, is a much different book. Instead of a growing guide for gardener's, most of this book is devoted to the systematics and taxonomy of this genus. In the introduction, the authors say that surveying the different species in the genus was a major goal, as misidentified plant material has become quite a problem in Europe. As a person who's last class in systematics was more than 20 years ago when it was still called taxonomy, I am not qualified to assess the validity of their survey of this genus. I will say their survey is quite comprehensive in the information provided about the species discussed in the book. Descriptions of plant and flower forms, origin, and best growing conditions and sites for the species is quite detailed. I am impressed by the amount of work put into surveying the genus.

Chapter 1 discusses the botany of the genus. Chapter 2 covers the history of the genus and chapter 3 the history of the European hybrids of the genus. Chapters 4, 5, and 6, Cultivation, Propagation and Pests, and Diseases and Disorders, respectively, are the only chapters that specifically cover growing the plants.

The rest of the book—chapter 7, Penstemons Across the World; chapter 8, A Survey of Penstemons Species; chapter 9, A–Z of Garden Forms of Penstemons, and the appendices—is devoted to describing plants in the genus. Appendix I is a very useful concise species checklist. This book would be a good reference for individuals familiar with the genus and experienced gardeners. The amount of information presented would be a bit overwhelming for someone just beginning to garden. The color photographs and plates though present the genus very well and get a reader unfamiliar with the genus excited about it and wanting to know more about penstemons. The line drawings also illustrate what is conveyed in the text. I find a description of a plant much more meaningful if accompanied by a picture or line drawing. The book is reasonably priced for the quality of the book.

As ways the book could be improved, if it is to be a gardener's growing guide, the book would be better arranged to focus on the growing aspect of the plants and not as a book of species descriptions. It is a good guide to the penstemon genus, though.

I know of no other books specifically on penstemons, so this book will be the definitive reference and source of information on penstemons. The excellent photography and illustrations and glossy paper gives this book a place on the coffee table.

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Horticulturists, landscape architects, nursery and garden center operators, and gardening enthusiasts rarely have just one woody plant reference book on their shelves. Because of our interest and passion for the subject matter, and the need for more than one opinion, most of us draw upon the knowledge of several texts when researching a plant of interest. And it's always exciting when a new plant book arrives on the scene, especially when it brings something new or unique to print. Such is the case with Trees of the Central Hardwood Forests of North America. From handsome cover to cover, this volume entertains and informs the reader about native or naturalized trees (and a few shrubs) found in a broad band across eastern North America, along with a number of introduced species commonly planted in the region. The authors freely admit that their intentions are to promote appreciation and conservation of the central hardwood forests as they remain today and to encourage the use of native trees in the landscape, but they do so without the preachy language and condemnation of introduced species found in print elsewhere.

Trees of the Central Hardwood Forests of North America is logically arranged and easily understood. It begins with an introduction containing useful information about the climate, physiography, and geology of the region, plus descriptions of the predominant forest vegetation types. The requisite, "how to use this guide" chapter is well written and particularly useful for students and others just learning skills needed for plant identification. And for those of you that enjoy the challenge of dichotomous keys, both summer and winter keys are provided. A glossary of terms, bibliography, and index to scientific and common names also are included to guide the reader.

Most of the book is devoted to in-depth descriptions of taxa found in

Think you know most of the ornamental grasses? At last count there were 15 books on this subject, and now another one? However, Roger Grounds lists an extensive number, 522 by my count in the A–Z appendix, many of the newest cultivars in England, Europe, and the United States. The purpose of the book is "to discuss ornamental grasses and how they may be used in the garden rather than to look at the botanical niceties that distinguish one from another."

This is Grounds' second book on grasses, he was one of the first pioneers to write on the subject in 1979. His experience with these plants is evident in his detailed descriptions and comparisons. Many of the photos are from his Apple Court Nursery in Hampshire, England.

The book is organized by chapters on features and uses of the grasses such as Coloured Leaves, Essential (major) Flowering, and Lesser (minor) Flowering, Meadow Gardens, Wetlands, Woodlands and Shade, Tussock, and Container Gardens. Some of the more unusual chapters are: Annual Grasses; Tussock Gardens from New Zealand; H. o. House and Conservatory; and Troughs, Sinks and Alpine Gardens. Several useful appendices include: grasses for special uses: 28 lists including alkaline, clay, or sandy soils, drought-tolerant, fragrance and evergreen; where to see the grasses, U.K., U.S.A and Europe; where to buy ornamental grasses, U.K., U.S.A, Europe; further reading; and the main appendix listing the height, spread, time of garden interest and flowering, warm/cool growth classification and USDA hardiness zone.

The author captures the difference in gardening with grasses with the statement, "The most important point to grasp when using the grasses is that their decorative qualities lie first and foremost in their form and structure and only secondarily in their color, whereas with the more familiar broad-leaved plants, it is flower color that contributes most, form and structure being secondary."

There are numerous beautiful color illustrations highlighting individual specimens, garden use and good combinations. I especially enjoyed the ten, large two-page plates of cut flowers or foliage which provided a close inspection of similar or interesting plant parts. Plate IX, for example, shows the diversity between sixteen 8" sections of bamboo culms. Although beautiful and detailed, Plate VIII shows inflorescences of seven Miscanthus cultivars at varying stages of development, which although distinct at the time could not be used for consistent identification purposes. A few species, for example, Diarrhena japonica and Gramineae sp. Chile (sic), are illustrated in the plates but are not found elsewhere in the text.

The strength of the book is the extensive cultivar descriptions, and planting combinations. Some recommended examples are Hakonechloa macra 'Aureola' with steely blue H. 'H. aclyon'; Molinia caerulea sp. caerulea 'Variegata' with Convallaria majalis 'Vic Pawlowski's Gold'; Helictichon sempervirens with G Gramineae sp. contrasting forms and colors for a container garden.

Organization wise, this book can be a challenge to read. Fortunately, the index lists all citations by botanical name. Suppose you want to find the new Pennisetum cultivar 'Little Bunny'? It's on page 22, 51. On page 22 you find a good description and another similar cultivar 'Little Honey'. Something new to look for. But more description on page 51 is hard to locate since it lies in the midst of eight (46–54) unnumbered (!) pages. Many pages throughout the book are unnumbered, making the index difficult to use. Information for one plant is usually found in several different sections throughout the book.

In the final chapter on care, Grounds recommends seed propagation for "all species and botanical varieties, including annuals, contrary to the general rule, variegated grasses will produce about 20% variegated seedlings." Fortunately he continues in the next paragraph: "Named varieties of grasses should only be increased by division." This can be confusing for readers, because seed propagation of most perennial grasses (due to wind cross-pollination) will result in a wide array of plant forms and phenotypes. (Pennisetum alopecuroides is a good

Tress of the Central Hardwood Forests of North America will take its rightful place alongside Dirr, Flint, Boon, and Hightshoe on my bookshelf. It is factual, well written, and offers information not found in other woody plant texts. I recommend it for beginning students and advanced plant people alike.

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For years nursery growers have been requesting a pocket-guide on fertilization, with color photos showing typical nutrient disorders of nursery crops. Fertilization Guide For Nursery Crops may be the guide they seek. The guide has over 130 color photos, with 70 showing side-by-side comparisons of various mineral elemental deficiencies compared to healthy plants. Another 25 photos show symptoms without healthy plant comparisons. Color photos, tables and charts representing more than 130 taxa are included. The text also contains nearly 40 charts and tables listing criteria for media and foliar analysis. All this information fits neatly in your shirt pocket.

But there is a catch; the text is from the Netherlands. All the units of measure are metric, not the English units that United States growers routinely use. Have your conversion factors available before you start reading the text. Also, the cultivars selected for study, the irrigation systems used, and the substrates in which they are grown are not representative of systems used by nursery growers in the United States.

The text is based on research by Theo Aendekerk at the Research Station for Nursery Stock in Boskoop, The Netherlands, from 1975 to 1995. Joy Burrough-Boenish performed the translation. While the English version is generally good, the translation does not always use terminology familiar to nursery growers in the United States. For example, section 11 is titled Deficiency Diseases. The title Deficiencies might have been a better selection, since growers in the United States often reserve the word diseases for biotic crop problems. Another example is a list of environmental factors referenced as physiological factors that interact with fertilization to influence plant growth. Occasional typos exist, but not enough to annoy the reader. Even if some of the systems or terminology are unfamiliar, the book is worth acquiring for the volume of information contained in such a short text.

Fertilization Guide For Nursery Crops is divided into useful topical sections or chapters. The sections range from quick reviews on fertilizer uptake, fertilization procedures, and water quality to nutrient disorders and deficiencies. The overall goal is to assist growers with fertilization according to crop needs.

The introduction discusses nursery production in the Netherlands, noting an emphasis on the use of recirculating irrigation systems and smaller pot sizes. The section ends with a sidebar suggesting symptomatic and substrate or nutrient solution analysis for problem diagnosis. The inclusion of foliar elemental analysis as part of the suggested diagnosis procedure would have been helpful. The author does discuss the utility of foliar analysis in the Fertilizer Uptake section.

The chapter on Fertilizer Uptake includes three useful illustrations: 1) Table 1 shows the N, P, K, Ca, and Mg foliar analysis of nine woody crops during the growing season; 2) Graph 1 shows the foliar analysis of Photinia 'Red Robin' at various times during the growing season; and 3) Table 2 shows the foliar analysis of Pseudotsuga menziesii at the beginning, end, and during the growing season. The illustrations help emphasize the variation in mineral uptake and foliar analysis during different times of the growing season. For plants provided with a sufficient supply of P, Aendekerk suggests that woody plant uptake of P will stop when the plant obtains an optimal level, and that most of the P is taken up in July, August, and September. The elemental concentrations reported are typically higher than those reported in other texts, such as the Plant Analysis Handbook II (H.A. Mills and J.B. Jones, Jr., 1996. MicroMacro Publishing, Athens, Ga.).

In the next two sections, photos and a data table are used to illustrate how fertilization can be used to manipulate the quality of nursery crops. Manipulation of frost resistance, flowering and shoot architecture are discussed. The importance of the nitrogen form applied, the amount of carbonate in the irrigation water, the pH buffer capacity of the substrate, and pH adjustment of the substrate are noted. Aendekerk suggests substrate pH levels of 4.3 to 4.6 for ericaceous plants, 4.8 to 5.2 for conifers and 5.0 to 5.5 for woody shrubs. Discussing cutting propagation, Aendekerk notes the need to avoid excessive nitrogen on stock plants, and emphasizes the importance of fertilizing immediately after cuttings form roots.

In the container culture section, use of continuous liquid fertilization or controlled-release fertilizers is discussed, along with media analysis procedures. Fertilization methods for field nursery production are provided, along
with some helpful strategies for fertilizing perennials.

The Quality of the Irrigation Water section skillfully uses charts, tables and photos to review the need to know the quality of irrigation water being used. Sodium chloride, soluble salts, and plant tolerances to various micronutrients are also presented. After reading the text, the overall philosophy of fertilizing according to crop needs was effectively communicated, and monitoring procedures were provided.

The Nutrient Disorders and Deficiency Diseases sections comprise fully half of the book. Nurserymen will enjoy the wealth of color comparison illustrations carefully used in these two sections. Covering individual elements, from nitrogen to molybdenum, the photographic illustrations make an excellent review of deficiency symptomology.

A short glossary listing terminology in various languages is provided. The index is developed around only taxa names, not subject topics. After reasonable use, the binding was loosening, but no pages were lost. Photo quality will last longer if the text never gets wet (which could limit its practical use in many nursery settings), and if sticky-notes are used to indicate frequently used pages rather than marking pages by bending the corners.

The best part of Fertilization Guide For Nursery Stock is the large number of color illustrations showing comparative symptomology to various elemental deficiencies. The text is worth purchasing for the illustrations alone. The price will vary according to the fluctuation of currency exchange rates. Whether in the Netherlands or elsewhere, Fertilization Guide For Nursery Stock should be on the reference shelf of all growers routinely producing woody ornamental crops, and it would make an excellent field guide for extension agents. The text might also help students become familiar with the symptoms of mineral disorders of woody species.

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The Healing Dimensions of People-Plant Relations: Proceedings of a Research Symposium. Mark Francis, Patricia Lindsey, and Jay Stone Rice (eds.). 1994. Center for Design Research, Department of Environmental Design, University of California, CA 95616. 498 p. The Healing Dimensions of People-Plant relations Proceedings of a Research Symposium is a book that reproduces papers and keynote addresses, presenting summaries of the symposia and workshops presented at the 1994 People-Plant Relations Symposium. This third symposium sponsored by the People-Plant Council convened at the University of California, Davis in 1994. Asper the introduction “The People-Plant Council seeks to stimulate, communicate, and disseminate research exploring the relationship between human well-being and social development.” The goal of this symposium was to present research and programs that covered a broad range of people-plant relations including community and children’s gardens, healing and convalescence, horticultural therapy, and the overall role of plants in society. Through qualitative and quantitative research, case histories, and personal stories, this book is designed to broaden perspectives on people’s place in a larger ecology.

The book is divided into five sections: Editors’ Introduction, Keynote Papers, Summary of Invited Symposia, Papers, and Workshops. The papers presented in these proceedings are from many professionals with diverse educational backgrounds and experiences. From the beginning, the keynote speakers’ section is exceptional and alone it provides a remarkable contribution. Additionally, the majority of papers are effective in exploring the effects of gardening, horticulture, and green spaces on individuals and society. Papers cover a diverse range of populations, including adults, children, and people with special needs. Unfortunately, this publication is not without flaw. Some method of cross-referencing is badly needed. There are so many diverse papers, it can be difficult to know where to look. The result would be a missed opportunity to read applicable research that is included in subsequent sections. Compared with proceedings from other People-Plant symposia, this publication is similar in content, however, the general layout and consistency in formatting the various papers is not as polished. These are the only notable flaws to an otherwise excellent resource.

Social science research is relatively new within the horticultural sciences. As such, the information that is available documenting the research findings is somewhat limited. Consequently, these proceedings provide a definite value and contribution that adds to the pool of information related to people-plant relations. Throughout these papers, the importance and value of active and passive personal experiences with plants becomes evident. The proceedings will be a valuable resource to researchers, teachers, extension agents, and the horticulture industry as a whole.

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This much-awaited volume is a revision of the first edition, which has been an essential reference book for strawberry researchers, extension workers and growers since its publication in 1984. More than 30 strawberry experts from around the world have contributed to the second edition, imparting an international focus and providing current information on a broad range of strategies for managing important strawberry diseases and disorders. Although the second edition has fewer pages than the original, it actually contains more information, and the concise, logical layout makes the information very easy to find. The result is an improved compendium that is comprehensive, current and accurate.

The book includes a Table of Contents and an Index. An Introduction.
tion presents useful background information on strawberry botany, morphology, propagation, and disease resistance, as well as a general overview of strawberry arthropods, diseases, and the principles of integrated pest management (IPM).

Thereafter, the compendium is divided into three major parts, each with additional subdivisions, according to the causal agent of the disease or disorder. Noninfectious diseases caused by environmental or plant physiological factors are presented in Part I. Recognizing the important relationship between strawberry plant nutrition, plant health, and pest and disease management, this section includes a comprehensive discussion of strawberry nutrition. Infectious diseases caused by bacteria, fungi, viruses, virus-like organisms, and nematodes are presented in Part II. Diseases caused by infectious agents are logically organized according to the type of organism, the affected plant part, and by the relative importance of the disease. Organisms that attack more than one part of the plant are cross-referenced in the text. The section on viruses and virus-like diseases has been greatly expanded from the original version, as has the section on diseases caused by leafhopper-vectored phytoplasmas. Part III addresses injuries attributable to arthropods and mollusks.

Twenty-four pages in the center of the book contain 171 color plates that cover a broad range of diseases, disorders, and causal agents. The photographs are generally excellent, and are very helpful for diagnosing pest and disease problems.

Importantly, this compendium discusses strawberry diseases and disorders within the context of strawberry plant physiology, and of the entire crop production environment, emphasizing IPM principles and practices, and purposely suggesting only general control measures for any particular disease.

This is an authoritative book, with few deficiencies. However, the Introduction Chapter would be strengthened by the inclusion of a brief discussion of the various types of strawberry production systems currently in use. For example, perennial matted-row and annual hill-cultured systems are quite different, and each can be expected to have a greater or lesser occurrence of particular pests and diseases. Similarly, glasshouse and plastic tunnel culture have their own associated pest and disease problems.

The absence of contributors or reviewers with active research programs based in California is puzzling, particularly in view of the fact that 25% of the world’s strawberry production is grown in California. From the horticultural perspective of this reviewer, the compendium appears complete, but one wonders if the absence of a California perspective on strawberry diseases and disease control strategies results in an imbalance. This omission also may account for misspelling the cultivar Camarosa in the Introduction Chapter.

The few minor deficiencies aside, the editor deserves praise for assembling such a concise and comprehensive reference book. The Compendium of Strawberry Diseases is a must-have reference book for anyone working in applied strawberry research, extension, or production.

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Cuttings from a Rock Garden was first issued in hardcover format in 1990, and it received a well-deserved Award of Excellence in the 1990–91 Quill and Trowel Awards competition. Its current release in paperback makes it more widely available. This book was initiated in 1988, when H. Lincoln Foster found a manuscript written by his late wife, Laura Louise Foster. That manuscript was edited to form the Section One of the book, documenting the story of how the Fosters developed their six acres of gardens over a period of 35 years. To complete the book, editor Norman Singer added two more sections written by both of the Fosters: a group of plant portraits and a series of essays on gardening.

This book is graceful, charming and enticing. Anyone with even a passing interest in rock gardening has read at least a few things by the Fosters; H. Lincoln Foster's Rock Garden is a classic, and both Fosters contributed many articles plus their editing skills to the American Rock Garden Society's Bulletin for many years. This book allows us to savor their writings one more time.

In Section One, “Millstream: The Story of a Rock Garden,” Laura Louise Foster documents the “story” of the garden and its creators. Their story reads like a novel, and is like the story of many gardeners: he was the gardener, and she became the convert. Their combined enthusiasm led to huge plantings and a deep commitment to growing and learning about plants, particularly rock garden species, low-growing phloxes, rhododendrons and American wildflowers. They encountered the usual challenges of finding time to garden, conquering entangled old garden to develop their plantings, and dealing with the harsh climate of New England. Eventually, they retired to devote their time to working in and writing about the gardens at Millstream. Their dedication to gardening comes through on every page, in a straightforward and genuine manner. As the book’s introduction states, “gardening may seem a solitary task, but gardeners tend to come in pairs.” The wonderful thing about this pair of great gardeners is that they took the time to share their enthusiasm and knowledge with the rest of us.

Section Two, “Plant Portraits,” presents over 40 essays by H. Lincoln Foster, and half a dozen more by Laura Louise Foster. These plant portraits were previously published, mostly in the American Rock Garden Society's Bulletin. Some are very short: two pages on Aster linariifolius seems to cover the topic adequately. Others are much longer: Phlox and Saxifraga are important genera in the rock garden and require more space for full discussion. The authors' experience in growing plants forms the basis for all of these articles. The writing is clear and honest, never preachy or ostentatious.

Section Three contains essays on a variety of topics related to gardening. These essays, written by both of the Fosters, draw from years of experience. One essay by Laura Louise
Foster, entitled “Green,” discusses the importance of green in the landscape. Many recent books have fleshed out various aspects of this topic, but none say it any better: “Green is the color of life … Green is the frame that gives shape to your landscape.” In another essay, “Ten Best Plants,” H. Lincoln Foster entices the reader by describing the challenge of selecting the ten best plants for a rock garden, only to conclude that “There are so many plants I love … that each time I go over my list in an effort to cut it I think of still more that I should add. Making a list of ten favorite plants is an exercise in the impossible. Each is a favorite for its special grace.”

This book is illustrated with several pages of full-color photographs, and with many beautiful drawings by Laura Louise Foster. Her attention to detail brings plants to life, even in pencil drawings. Her accurate renditions of root systems is noteworthy. The book also has a good glossary, with many terms illustrated by drawings. The index is limited to references to plants (the one minor drawback of the book).

Cuttings From a Rock Garden is an enjoyable account of a garden, its plants, and its owners. It would make a good gift for any rock gardener, and a welcome addition to the bookshelf of horticulturists who appreciate the “stories” of gardens and gardeners.

**BOOKS IN BRIEF**


This volume provides the first comprehensive, botanically detailed and up-to-date survey of this beautiful group of plants since publication of The Genus Iris by W.R. Dykes early this century. Following the pattern of the original Dykes monograph, botanical details, cultivation suggestions and general comments are supplied, and the work is generously illustrated with accurate line drawings, color pictures of unusual species and distribution maps. This new survey includes all of the species that have been described so far this century and takes into account the many changes in classification that have taken place in the group. Information currently scattered in the literature is brought together in one volume to provide an authoritative reference for professional botanists and growers, and a mine of useful information for amateur gardeners and iris enthusiasts.

**Books in Brief**


The first book in a trilogy of gardening classics, My Garden in Spring has delighted, charmed, and informed true disciples of the garden since its first publication in 1914. Author Edward Augustus Bowles (1865-1954) has often been called the greatest amateur gardener of his time. His garden at Myddelton House near London boasted a world-class collection of plants, ranging from the everyday daffodil and cyclamen to rare cacti and hardy palms. Bowles was recognized as an authority on crocuses, daffodils, and snowdrops and is the author of the standard monographs on these plants. Since his death, The Royal Horticultural Society has set aside a “Bowles Corner” at its Wisley garden, and his garden at Myddelton House has been fully restored and opened to the public.

**Books in Brief**


The book is not intended to be an encyclopedia of tropical plant diseases, but is rather intended to lead the reader to literature on identification and control of diseases of the major tropical crops. Emphasis is given to crops grown in the tropics below 1,000 m altitude. Crops grown at higher altitudes in the tropics usually
All the elements of successful intensive crop production are discussed. These include the biological, climatic, economic and social aspects which must be taken into account and judiciously managed. Topics addressed include new gene technologies and their potential value for sugarcane, along with using knowledge of crop physiology to bring about high levels of yield. Other issues considered include the economics of resource use, such as irrigation, and the impact of sugarcane production on the environment. The book is essential reading for all research scientists working with sugarcane, including plant breeders, physiologists, agronomists and food technologists. It also provides general horticulturists with a model system for intensive crop production that will be relevant to other sustainable cropping systems.

**ADRIAN BLOOM’S YEAR-ROUND GARDEN.**

Previously published by Harper Collins in two separate volumes (Winter Garden Glory and Summer Garden Glory) in 1993 and 1996, respectively, this omnibus volume shows the author’s 6-acre private garden “Foggy Bottom” throughout the year, as well as giving examples and ideas for smaller gardens. Developed over a 30-year period, the garden is adjacent to the world-famous Blooms of Bressingham nursery, one of Great Britain’s largest, founded in 1926. Bloom’s varieties have recently become more widely available in North America, making sophisticated gardeners aware of this celebrated name that stands for the best in English horticulture. The color photos—all taken by the author—beautifully showcase the garden in all its seasons, and color is a major focus of the book, “Winter Color” and “Summer Color” being two important segments. Also included are two individual directories for the garden’s trees, shrubs, conifers, perennials, ferns, grasses, and alpines: one for autumn, winter, and early spring and one for late spring and summer. The book has been written with North American gardeners in mind and includes all relevant hardiness zones.