This compendium is included in the ongoing series of disease compendia published by The American Phytopathological Society. As stated in the preface, the compendium's primary purpose is to serve as a guide and practical resource for plant pathologists, horticulturists, educators, extension personnel, and students in diagnosing chrysanthemum diseases. The compendium is divided into two sections: part I—infec-tions diseases and part II—noninfectious diseases. The diseases in the first part are arranged according to the caus ing agent under fungi, bacteria, viruses, viroids, phytoplastas, and nematodes. The second part primarily deals with nutrient deficiencies.

The sections dealing with the different diseases are organized by first introducing the disease, then describing the discovery, spread, and seriousness in chrysanthemum production. Expected symptoms of the disease are covered and for most diseases are shown in one or several color photographs and black and white illustrations. The organism causing the disease is characterized by describing the disease cycle and epidemiology of the agent. Preventive and cultural techniques are stressed in the suggestions on how to control the disease. Each disease section is concluded by a list of selected references.

Twelve diseases caused by fungi are described in the first part of the compendium (ascochyta ray blight, chrysanthemum brown rust, fusarium wilt, septoria leaf spot, verticillium wilt, powdery mildew, pythium root and basal stem rot, rhizoctonia stem rot, sclerotinia stem rot (cottony stem rot), botrytis petal blight, white rust, ray speck, and interseonia petal blight). The four bacterial diseases described are bacterial blight, bacterial leaf spot, crown gall, and bacterial fasciation. Diseases caused by viruses and virus-like organisms include chrysanthemum stunt, chrysanthemum chlorotic mottle, chrysanthemum mosaic, chrysanthemum aspermy, chrysanthemum phloem necrosis, tomato spotted wilt, and aster yellows. Diseases caused by the nematodes Aphelenchoides spp., Meloidogyne spp., and Pratylenchus spp. (lesion nematode) conclude the descriptions of infectious agents.

The second part of the compendium on noninfectious disorders is prepared and written by T.C. Weiler and R.W. Langhans. Nutritional disorders in chrysanthemum of major and minor nutrients are described, and most of the disorders are also shown in color photographs. Information is provided on expected optimum contents of each element in newly matured leaves. The symptoms of nutrient deficiencies and other noninfectious causes of diseases such as nonoptimal environmental growing conditions, cultural procedures, and air pollution are listed in a table, which is arranged as a key for easy diagnosis and identification of the noninfectious disease agents. The compendium is intended to deal with infectious disease agents and not necessarily cultural and other abiotic disease causing agents.

A major plus for this publication is the extensive glossary. Readers with limited knowledge in plant pathology will find this section helpful in understanding the terms used to describe the diseases and exhibited symptoms. The index is also well organized and comprehensive making it easy to look up diseases and symptoms.

Most references listed at the end of each section were published before 1990. The authors indicate in the preface that these references were selected for their applicability to the discussion and should not be considered a complete list of relevant sources for information. The provided references may serve as a starting point for further readings on the different diseases. However, the reader should be aware more up-to-date studies have been published on many of the reviewed diseases.

The compendium covers the most important and common diseases in chrysanthemum production. A few of the included diseases are not a threat to the chrysanthemum industry today because of successful preventive control measures and a thorough understanding of the disease cycles. However, the potential for a serious outbreak if control measures or sanitation are relaxed warrant the inclusion of these diseases.

The symptoms and the characteristics of the different diseases are described in a style that is easy to follow and understand. The authors stress that knowledge of the disease biology is essential in establishing effective preventive and cultural procedures for disease control. The publication is a useful and practical summary over common chrysanthemum diseases and should serve as a handy and well-organized reference for everybody involved in any step of the production and marketing of chrysanthemums.

MERIAM KARLSSON
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The 1996 proceedings from the 4th International People-Plant Symposium held in San Antonio, Texas, 23-26 May 1996, is a well-edited and attractively presented collection of manuscripts. The proceedings contain a significant worldwide collection of 46 research papers and four workshops. The manuscripts reflect ongoing research and educational work describing application of horticulture to improve social and health conditions of urban populations.

In Section 2, 10 papers describe the social and psychological effects of plants and gardening on neighborhood and community development. Content relates primarily to application of the wider definition of sociohorticulture to community gardening issues. In contrast, the 17 papers in Section 3 relate to horticultural therapy applied within traditional institutional gardening programs. Papers describe social, physical, emotional, and cognitive influences of gardening activities for individuals. Section 4 contains three research papers on the influences of plants and green space in modifying interior pollution, improving air quality, and equating quality of life to landscape design. Although labeled as an economic issues section, the three papers in Section 5 relate more to perceptions, planning, and use of community green spaces. Section 6 contains four papers relating green spaces to art, aesthetics, and cultural interactions. Section 7 contains five research papers on classroom gardening, nature activities, and a listing of benefits provided to children through such experiences. Outlines of workshops are briefly presented in Section 8.

In addition to the above research papers, the participant list is a valuable identification of researchers from 26 states plus international contacts in Australia (2), Canada (1), Greece (1), Japan (10), Korea (1), and Mexico (1). This proceedings is a valuable research reference concerning horticultural activities in urban environments. If your work involves horticultural therapy, sociohorticulture, education, extension, or urban horticulture, I highly recommend obtaining a copy of this publication.

RICHARD H. MATTSON
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Manhattan

Compendium of Conifer Diseases.


As the title indicates, this book provides information on diseases that affect conifers. It is one of a series of compendiums covering plant diseases published by the American Phytopathological Society and is the cumulative effort of many forest pathologists from around the world. Each author addresses a specific disease problem for a local situation. The first and main portion of the book covers forest diseases of trees, and is divided into categories such as root, stem, and foliage diseases; true heart rots, rusts, cankers, and twig blights; cone and seed diseases; parasitic plants; and abiotic problems. Each disease is examined under such subheadings as causal organism, hosts, economic importance, ecological role in the forest, predisposing factors, geographic distribution, epidemiology, disease cycle, symptoms and diagnosis, and control strategies. In addition, thirteen black-and-white illustrations and 169 color photographs depicting the diseases provide visual interpretations of the text. There is also a list of selected references if further information is desired.

The second part of the book deals with particular geographic regions of the world and the diseases prevalent in forests of those areas. Europe, Fennoscandia, the boreal forest of North America, eastern Siberia and the Russian far east, coastal western North America, inland west of North America, the southern United States, India, Australia, New Zealand, and Africa are all regions that are addressed. Diseases of forest tree nurseries, Christmas tree plantations, and horticultural landscapes are mentioned in the third section.

The Compendium of Conifer Diseases should be useful to foresters and students of forestry and plant pathology from around the world, but is of limited value to horticulturists. It is an excellent source of information on diseases of conifers growing with natural stands and in forests managed for the production of forest products. However, because the thrust is on forest pathology, it does a superficial job of covering disease problems in ornamental landscapes, nursery production, or Christmas tree settings.

BRADLEY ROWE
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The Well-Tended Perennial Garden.


The Well-Tended Perennial Garden is welcomed addition to the collection of books available on perennial gardening. What makes this volume stand out from the crowd is its treatment of the subject. It’s not just another encyclopedia of plant species, their cultivars, and descriptions. Rather, this book answers those questions many consumers ask on how to care for the wide array of herbaceous perennials available at garden centers today.

The book is organized into three sections: Basic Perennial Garden Planning & Maintenance, Pruning Perennials, and Encyclopedia of Perennials. Chapters included in Section 1 are Design and Its Relationship to Maintenance, Bed Preparation: Insurance for Success, Planting and Establishment, Pests and Diseases of Perennials, Staking, Division, and Renovation of the Established Perennial Garden. Section 2 includes Introduction to Pruning, Deadheading; Cutting Back; Pinching, Disbudding, Thinning, and Deadleafing; Pruning to Prepare for Winter and Pruning to Prepare for Spring. Section 3 is the Encyclopedia of Perennials that includes a guide to using the a-through-z list of perennials. Appendices include ornamental grasses, perennial garden planting and maintenance schedule, and lists of perennials for specific pruning and maintenance requirements.

Written in a conversational style, it is very easy to follow the clearly presented information in each chapter. DiSabato-Aust cites horticultural research, draws on extensive experimentation in her personal gardens and those of her clients, and discusses practices used in different parts of the gardening world. A good discussion of the importance of the planning process, proper
bed location, preparation and plant material selection is provided. It reinforces that the concept of “garbage in, garbage out” does apply to perennial gardening. There is also an excellent discussion of integrated pest management for the perennial garden and the need to strike a balance between cultural and chemical means to control pests in the garden. DiSabato-Aust provides useful maintenance and care information on different species in the encyclopedia section. This is where her experience with perennials in the United States and England really shows.

The chapters are well illustrated to show the reader where pinches or pruning cuts are made and how to deadhead plants based on the type of inflorescence or plant architecture. The book includes many color plates that show the results of the different practices. There are several series of photographs of before and after shots of preparing and planting perennial gardens and the results of a “well-tended perennial garden” several months later.

In the encyclopedia section, tidbits such as “Digitalis lutea, straw foxglove, doesn’t seem to rebloom as reliably after deadheading as D. grandiflora, although it looks better if old foliage is cut down to new basal growth in late summer when it starts to decline” or provides key information such as Dicentra spectabilis will dieback in midsummer if dry conditions and summer heat prevail. This struck a chord with me. I’ve had to explain to someone who thought their Dicentra was dead. Her comment was “Why don’t they include this information in gardening books?” Well, now that type of information is available.

MARY LEWES ALBRECHT
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Ornamental grasses have resurfaced in popularity and now rank among the most important components of the perennial border. Many also make excellent ground covers or specimen plants. As beautiful as they are, many grasses can be too much of a statement or too large for some gardeners. In Gardening with Grasses, Michael King and Piet Oudolf show how to design with grasses so that their architectural qualities don’t dominate but compliment and contrast with other herbaceous perennials. The authors also are strikingly frank about the features of some grasses, such as size, verticality, or late bloom, that may limit their usefulness in the landscape. And following the current “right plant, right place” trend, King and Oudolf stress the need to choose plants that are adapted to a particular site or growing condition.

While at first glance this appears to be another European horticulture book marketed to American gardeners, Gardening with Grasses actually represents a far ranging study of grass culture and design that spans Europe and most of North America. While the heartland for ornamental grasses is inaguably Germany and the Netherlands, due credit and attention are given to American “graminiphiles” Oehme, van Sweden, Blumel, and Gates.

Gardening with Grasses begins with a brief and very entertaining introduction to the grasses and other grasslike plants (i.e., sedges and rushes). The first large section of the book describes the variety of ways grasses may be used in the landscape, from lawn to groundcover or specimen. The next section describes perennials that associate well with grasses. Some are classified as design elements, others by family (e.g., Umbellifers). Most useful in this section are specific lists of which grasses and herbaceous perennials to combine for a variety of design effects. Many of the architectural attributes of ornamental grasses are listed here as well, including those that make good winter silhouettes or possess good fall color. The third part of the book examines in detail the design of two strikingly beautiful perennial borders (at Hummelo and Domburg in the Netherlands) that successfully combine grasses with other plants. The fact that such simple designs can achieve such beauty is testament to the extraordinary skill and horticultural knowledge of Piet Oudolf. A section of Gardening with Grasses that alone makes this book worth owning is simply titled “Growing Grasses.”

Here the culture (easy!) of grasses is outlined, along with valuable lists of the most appropriate grasses for a range of garden habitats or color effects. To top off this exceptional reference, the last section of Gardening with Grasses catalogues >150 grasses, bamboos, and grasslike plants.

This book will be most interesting to home gardeners and to garden designers who wish to make a leap forward in their use of ornamental grasses. King and Oudolf don’t dictate how grasses should be used, but rather recount their experiences in several of the most well-known grass gardens of Germany, the Netherlands, and England. A multitude of beautiful and inspiring photographs provide a visual backup to the design prescriptions outlined in the text; every photograph deserves careful study. In each caption most plants, grasses and perennials, are identified, which greatly increases the value of the book as a learning tool. A variety of planting situations are illustrated, including the use of grasses to soften hard architectural lines, or even growing ornamental grasses in planters or pots.

Gardening with Grasses presents a load of valuable information on the culture of grasses and their use in garden design in an efficient and entertaining style. As opposed to most gardening books, Gardening with Grasses is a “page-turner.” However, as another “graminophile,” I wish more text had been given over to the description of grasses and less to other herbaceous perennials. From a design perspective, there is a good balance of both worlds.

Gardening with Grasses is one of the most inspiring garden plant and design books to come out of the growing interest in naturalistic gardening. With its many descriptions of grass species and cultivars and lists of site preferences, this book is also an excellent reference for the ornamental grass gardener. The photographs and text are far superior to most other gardening books in this price range. To inspire the new grass gardener, to help the professional designer create a more coherent perennial border, to answer questions of the inquiring horticulturist, Gardening with Grasses is the best book on designing with grasses to own at this time.

BRIAN MAYNARD
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As a professor of herbaceous plants, I am always looking for information on families and their identification, so I was interested in reviewing the 4th ed. of Cullen’s book, which keys 286 families in North Temperate regions. The text includes a brief survey of plant structure and its terminology, family descriptions, suggestions for further identification, and a glossary and index.

The introductory section on plant and flower morphology is helpful and easy to read. However, in the section on flowers, the backbone of identifying flowering plants requires more study. Three figures provide assistance on plant morphology and are easy to follow. The sections on horizontal and vertical disposition of the flower are more complex. Four illustrations and a table deal with ovary position and position of other floral organs with respect to the ovary. It is necessary to understand the author’s description of ovary position and insertion of perianth and androecium to use the keys. The illustrations of relative floral parts included in the figures show the complexity and variability of these important floral parts.

The dichotomous keys are straightforward and easy to use for persons familiar with botany and taxonomy. The book follows the Engler & Prantl taxonomic system, as it is the “best one for general purposes: it is well documented and widely used; its use in The European Garden Flora (1984 and continuing) gives further impetus for its use here.” An initial key to the plants into 13 groups, making it relatively easy to separate out monocots, dicots, and woodies. To assist in backtracking, the number of the lead from which any particular couplet is derived is given in brackets after the couplet number of the ‘a’ lead. Thus 12a. (3) means that one arrived at couplet 12 from one of the leads of couplet 3.

Due to the variability of families, some key out more than one place. Cullen, follows “middle way” in the recent tendency to split large families and includes subkeys under the brief descriptions of some of the more widely recognized segregates. The descriptions of families are clear and concise and include the distribution, number of genera and species, and a comment about use for ornamentals or economic purposes.

This is a handy pocket sized text, which gives further information on classifying and identifying flowering plant families. It should be useful for plant material and taxonomy instructors.

MaryAnnHockenberry Meyer  
University of Minnesota  
St Paul


Over two-thirds of the book is devoted to describing 244 species of cut flowers, foliage, and ornamental fruit branches. The information presented generally consists of family and botanical names, morphological description, availability, vase life, special home care, and floral trade care. The remaining three chapters encompass only 12 pages and contain information on care of cut flowers in the home, drying flowers, flower arranging, and care of cut flowers by retailers.

There are five appendices that superficially address the subjects of fresh flower foods, refrigeration, ethylene, Botrytis, and water quality. Two of the remaining three appendices contain easy-to-follow summary tables of flower arranging and flower care information, while the last one is a bibliography listing 29 citations. Good subject and botanical and common name indices are also included.

The book was seemingly written mainly as a resource guide for the consuming public. If true, the information and presentation format are acceptable. The many flower illustrations should be useful to consumers who may not know particular species.

The little flower care information presented is often too general, outdated, and sometimes inaccurate to be used by most HortTechnology readers, floriculture students, and commercial floral industry members. The title is therefore misleading for these readers.

One possible reason for the sometimes presented outdated flower care information is the fact that this book was published without any obvious or stated revisions of its initial 1988 edition. This edition would have been more useful if updated and corrected and expanded flower care information was included.

It is notable that the author is a member of a family with a long history in the European and North and South American floral industries. While she reportedly works mainly in the retail floral trade, her family is noted for their large flower growing and distribution capabilities. As such, the reader should assume that many of her recommendations were derived from a strong base of empirical knowledge. Of special interest is the fact that information is presented for some species not covered in most other flower care publications.

George L. Staby  
Perishables Research Organization  
Healdsburg, Calif.


This book provides great value to growers of foliage plants, with an overview of disease problems of most of the commercially grown foliage plants, by giving a short synopsis and color pictures of commonly encountered disease problems in 85 different genera. Plant genera are listed alphabetically, and each synopsis includes a brief description of good cultural practice, known insect and virus problems, and a more extensive listing of fungal and bacterial diseases. Cultural and toxicity problems are included where relevant. While a diagnosis based on visual symptoms only is not recommended, the text and pictures narrow down possible causes and facilitate proper testing.

Literature references are included throughout, and there are good cross-references on phytotoxicity, common and trade names of bactericides and fungicides, nomenclature, symptoms, and possible causes of problems.

Jan E. Groot  
Pacific Coast Nurseryman Magazine  
Glendora, Calif.
This impressive tome consists of 30 chapters containing 295 tables of data, 57 of which are in one chapter alone. The book has 136 figures, 58 of which are photographs, the remainder are mostly flow charts and some line drawn illustrations. The table of contents provides a simple listing of commodity chapters. Except for the first and last chapters, each deals with either one or a group of several related vegetable commodities; all important vegetables are included. The index is very good and indispensable for finding the subject vegetables and headings.

Each chapter outline typically includes an introduction followed by botany, cultivars, growth and development, production with mention of soils, climate, propagation, cultural practices, planting, irrigation, and fertilization, diseases, harvest and postharvest, commodity quality aspects, chemical composition, storage, processing, and occasionally antinutritional and medicinal properties. The outline is followed fairly faithfully for each chapter.

Chapter 1 presents a brief introduction of the role of vegetables in world diets, a listing of important vegetables, several examples of how vegetables can be classified other than by Latin binomials. Also provided is a listing of world production tonnage, major vegetable production countries, and what is a prevailing theme throughout the text, the presentation of proximate composition of vegetable crop nutrients, vitamins, and minerals for many vegetables. Chapter 30 is really an extension of Chapter 1 and logically could be a part of the introductory chapter.

The text is totally compatible with the book’s title. Vegetable production is addressed generally well, and the information for crop composition, storage, and processing is presented extremely well. Some chapters treat the latter three topics in great detail, less detailed in other chapters, but nevertheless adequately. The potato chapter gives excellent coverage to tuber nutrient changes during storage and processing. Potato processing methods, products, and preparations are very complete, as is the discussion of antinutritional and toxic compounds. The topic of tuber greening during storage is excellent. However, there is little said about true potato seed or conventional propagation, variety or disease certification. Tuber seed handling, quality characteristics, and storage are lacking, and little is said about viruses, tuberization physiology, or the role of light and temperature on tuberization.

Other chapter treatment generally parallels that of the potato chapter. Information about chemical composition, postharvest storage and processing receive emphasis or priority treatment, whereas the production information although mostly accurate is not always current. Many of the individually authored chapters often reference a 50-year-old publication, which no longer relates to present production situations and practices. For example, there is no mention of hybrid cultivars in the carrot chapter. Low calcium is not a cause of cavity spot, scab is not a physiological disorder. There is no mention of the role of mechanization in carrot harvesting and none or little for harvesting of other vegetables. The discussion about rapid cassava propagation is interesting, but incomplete. The mention of discontinued cultivars tends to date the book. This book resembles the earlier *Vegetable Crops in India*, 1986, work of Bose and Som. However, the completeness of the crop composition, postharvest handling, and processing is much superior.

On the other hand, there is some well-presented information. The discussion on sweet corn procedures and aroma constituents is very thorough, as are examples of packaging and controlled atmospheric storage influences on product quality for many other vegetables. Every chapter offers something new and useful, and although there are some typos and out of date information, the completeness of the composition, storage, and processing information more than compensates for other shortcomings. Would I buy this book? Yes, I would because I would want to have ready access to the information it contains.

General complaints have to include the photographs. Most are of poor quality because of underexposure. Several in the mushroom chapter cannot be understood even with the legend explanation. Few illustrators would claim responsibility for some of the line drawings. Flow charts are used to excess. They used considerable page space, and many could have been described just as well in the text. Likewise, the use of tables also is excessive. Chronic use of tabular information gave me the impression that they were available and therefore ought to be used. Often they are insufficiently identified or described or their relevancy to the discussion in the text was only slightly apparent. There is some duplicity in use of the tables. In the cabbage chapter, Tables 2, 3, and 4, dealing with nutritional, mineral, and vitamin composition with little editing could and should have been combined into one table. In the cassava chapter, separate Tables 2 and 6 are essentially identical. In the pumpkin chapter, Table 3 is only an extension of Table 2.

Some references are incorrectly identified. For example, Table 1, p. 274, should have been credited to Whitaker and Davis, 1962, rather than Nath, et al. Typos are plentiful, which is clear evidence of inadequate proofreading. Page 524 is rampant with errors, other are readily found. Incorrect identification of genus and species or their spelling are the most common typos.

Editors did not use opportunity to do some condensation of information such as world production volume, major production countries. This information appears in almost every chapter and could have conveniently been located at one central area.

Material is easy to read, topics easy to find. Considering that the chapters were provided by different authors, some duplicity is expected. The book provides a lot of good information; accordingly, serious horticultural and food scientist professionals would enjoy having a personal copy.

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PHOTO-LIBRARY OF HERBACEOUS PLANTS.

The Photo-Library of Herbaceous Plants, a four-CD-ROM set, is a compilation of almost 7,300 images of herbaceous ornamental plants. The photo-library includes many common and uncommon annuals, perennials, ferns, bulbs, wildflowers, and ornamental grasses. The four CDs are organized alphabetically by genus: CD 1, Abietillum to Cephalanthera; CD 2, Dactylorhiza to Hypoxis; CD 3, Ibex to Pycnanthemum; and CD 4, Quinaria to Zizia. The user can search for images by using pull-down lists of scientific names, common names, or families. It would appear that care was taken to select and use high-quality color images and to make sure the color balance was corrected if altered during the scanning process. Often, the photo-library contains multiple images for each species. Besides multiple cultivar images, for many species there are flower, flower and foliage, and habit and foliage images. The one thing to remember when using this CD set is there is no cultural information provided. It is what the title says: a photo-library.

The four CDs are just part of the total package. Also included is a 61-page book in a three-ring binder that has easy-to-follow installation instructions, information to replace defective CDs, a user’s guide, and two lists of plants included on the CDs (a botanical name and a common name list). There is also a bundle of page protectors to store printed images.

Operation is fairly easy. For those who do not read instructions or just jump into software without looking at the manual, this is a fairly user-friendly program. For those that tend to forget the sequence you’re supposed to click buttons, you do get pop-up screens letting you know you did something out of sequence.

To operate properly, the system requires an IBM PC 386 DX/2 66 MHz or comparable (486 DX/2 66 MHz or better recommended), 8 MB RAM, 2X CD-ROM player, 10-MB hard drive space, MS-DOS 5.0 or higher, Windows 3.1 or higher, VGA graphics with 1 M video RAM, 256 colors, 640 × 480 resolution, and a Microsoft compatible mouse. I tested the installation on two personal computers. Both exceeded the system requirements: Pentium 166 MHz running Windows 95, 32 MB RAM, 8X (my office computer) or 12X (my home computer) CD-ROM players, VGA monitors with necessary memory, and the necessary hard drive space and mouse. Where the two systems differed was in the monitor settings: 256 color, 800 × 600 resolution and small fonts (my office PC) versus True Color (32 bit), 1024 × 768 resolution and large fonts (my home PC). With my office PC set at an 800 × 600 resolution, the images did not fill the screen but they were still viewable. I had to change my home PC monitor settings to 256 color, 640 × 480 resolution and small fonts to have buttons displayed on the opening screen that are needed to get into the software (get past the opening image). At the 640 × 480 resolution, the images filled the screen.

The software allows you to generate lists of images (called Pick lists in the manual), view the images, save the list (filename is limited to eight characters), and load a saved list. There are two drawbacks to creating lists. One is that, once you select plants, you can’t go into the list and change the order. You can highlight a plant on the list and easily delete it, but you can’t move it to a different position in the list. The other drawback, and it is clearly stated in the manual, is you can’t use the Auto presentation feature with a Pick list that contains plant names from different CDs. You can use the Preview feature as well as view the images individually but you will be prompted to insert the proper CD.” This is a drawback to using prepared Pick lists for classroom instruction or for home and garden show displays; you’d be changing back and forth between CDs. It would work if the course’s weekly plant lists were organized alphabetically by genera. Herbaceous plant materials courses are commonly taught with weekly lists organized around families, garden uses, season of bloom, or other common characteristics.

There are several options for viewing the images. You can start anywhere on the scientific or common names list, click on the name you want to start with, click on the Auto button, and sit back to view the images as a slide show (each image is on the screen for approximately five seconds). To stop, just click on the Auto/End button. You can view the Pick list you generated using the Preview or Auto buttons. ALT-Preview lets you set the screen to two or six thumbnail images, or to full-screen viewing (click on the thumbnail image to enlarge the image; then click again and it goes back to the thumbnail image) and lets you linger on each image for as long as you’d like. There’s also a quiz option. When viewing the thumbnail images, the plant names can be omitted. This way, students can quiz themselves.

The images are printable. I tried using two different color printers: an HP DeskJet 1600C ColorSmart and an HP DeskJet 682C. The HP DeskJet 1600C printed the image a little darker than the HP DeskJet 682C. Both images were acceptable. I also printed one with an HP LaserJet 5L. The result was a pretty decent gray-tones image. The manual clearly states that the software and images are “licensed for exclusive non-commercial use of the original purchaser (‘you’) for use on one computer only.” Even though the introduction mentions different commercial uses (e.g., garden center signs, garden design presentations to customers, home and garden show displays), it does not mention the need to get permission. That doesn’t show up until a couple of pages latter. To use the images in a commercial setting, for any reason, you must contact Plant America, LLC, for permission. The lesson here is “Read the instructions.”

At $149.95 many students might be hesitant to purchase a copy. Having one accessible through the library or in a departmental computer lab might be options. However, it’s a bargain for a landscape design or build firm. Having access to the images would be a great addition to selling a job to a prospective client. Printing them out to create a personalized portfolio for each job can help to separate the firm from the competition. It would also be handy for extension agents or Master Gardeners working with the general public.

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The first question that came to mind when I started to review this book was “What is a xeriscape?” I quickly discovered that a xeriscape is a low-maintenance water-efficient landscape. Unfortunately that doesn’t mean no maintenance. While the title indicates Prairie xeriscaping, it becomes immediately apparent that the principles and practices related in this book apply to a large range of geographical locations. For those who have experienced drought lowered water tables, this book will be of importance and may well define landscaping in the 21st century. This book has won two Saskatchewan Book Awards and is endorsed by a long list of individuals and institutions who provided material and were involved in the technical review.

The author has simplified how the book is structured with a section on how to use the book. I would suggest reading this part first. The goal of this book is to demonstrate that xeriscaping is not a limited style of landscaping as stated by the author but can involve various approaches and design styles. The key is how water is used. The first part of this book is devoted to explaining the fundamental aspects of xeriscaping such as design, soil dynamics, irrigation, mulching, and lawns. If you are interested in learning how to design landscapes that are beautiful and water efficient, this book shows you how to create a prairie xeriscape of your own. Throughout the book you will find specific examples illustrated by line drawings and photographs.

The second part deals with plants divided in the following categories: ornamentals, trees and shrubs, perennials, vines, bulbs, annuals and native plants, and, most interestingly, even the edible xeriscape. The third part concerns implementing change in your community, plant resource information, and a useful glossary of terms. Each chapter is well illustrated with capsules to highlight important aspects. There are several suggestions for further reading indicated in Chapter 2 (design), and Chapter 7 (ornamentals for the landscape). I consider this book complements another reference, XERISCAPE Gardening: Water Conservation for the American Landscape 1992, by Connie Lockard Ellenson, Thomas C. Stephens, and Doug Welsh.

If a future edition is undertaken, I would suggest that the author considers expanding the reference section to include more information on soil dynamics as this information was somewhat superficial. Also a more-detailed explanation of prairie xeriscaping could be included by describing various plant communities and vegetation types. Moreover it should be noted that there are almost 5000 sites on the Internet concerning xeriscaping that might be included in a future section on Web sites. Lastly, the author might consider adding a section concerning green roofing systems as another application of xeriscaping. This is a concept of low maintenance landscaping widely used in Europe and starting to find its way into North America. You could say that this is xeriscaping on the roof.

This book is a pleasure to read and is designed as a reference guide for homeowners, landscape professionals, developers, and municipal planners alike.

BLANCHE DANSEREAU
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The wonderful environment of vertical surfaces covered with climbing plants adds a new dimension and provides an important focal point and integral part to a garden. In the authors’ words, “An archway draped in sweet-smelling honeysuckle or a wall clothed with clematis or dripping blue wisteria are features much admired in temperate gardens.” Gardening with Climbers specifies the diverse roles played by flowering and foliage climbers as individuals and in combination with other plants, particularly trees and shrubs. As a gardener or horticulturist, if you have never paid attention to this aspect of the landscape, you will indeed wonder why after perusing this informative, easy-to-read, and colorfully illustrated text. The first section covers basic background for all types of climbing plants while the second addresses particular genus, species, and cultivars.

Climbers in the wild are most prolific in the tropics and subtropics, where they rapidly climb to their niche in the canopy, using other plants for support, minimizing competition for light and providing incredible flower color up at the top. Examples of tropical and temperate origin include bougainvillea from Brazil, types of jasmine from India and South East Asia, clematis and rose from China, and wisteria from Japan. Various techniques used for climbing are aerial roots, twining stems, coiling petioles, adhesive pads, leaf tendrils, stem tendrils, and hooked thorns.

After developing an appreciation for the world of climbing plants, the next adventure is selecting the proper choice for the particular circumstance. The most important consideration is the space available for support, such as a wall, fence, building, arch, or pergola in regard to vigor of the climber and whether it will outgrow the parameters provided. Furthermore, the amount of weight and maintenance requirements of the vine chosen along with flower and leaf color, season of interest, if deciduous or evergreen, and whether it will thrive in the chosen locality are of practical concern. Hardiness criteria are also critical for placement in a particular microclimate in the garden spot, as well as drought, heat, sun, and shade. For instance, the temperature on a wall or fence might be high enough to extend the range of planting a cultivar. The authors suggest visiting local gardens and parks and driving through neighborhoods for selection ideas. When considering structural devices, the example of a pergola or archway is used, which can become an integral part of the garden design, providing a tunnel effect, carrying the eye to a distant feature.

Some plants and situations require little attention, whereas others need meticulous care. Pruning is a major concern and the authors maintain there are no hard and fast rules. Usually, a framework is formed and excessive

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growth is removed to maintain the shape. It depends on season of flowering, allowing as much time as possible between pruning and flowering. Therefore, spring-flowering climbers are pruned immediately after flowering and summer- or fall-flowering climbers are pruned in winter or spring. Deciduous foliage climbers are cared for in the fall and evergreen climbers in the spring. A popular method to enhance flower production is spur pruning, leaving a few buds on a short lateral, e.g., wisteria. Renewal pruning is not recommended as the norm and can be done in stages over several years, if necessary.

A detailed maintenance chart for the four seasons gives explicit advice on caring for specific types of climbers, e.g., when to plant, prune, tie, fertilize, and check for pests and diseases. A two-page list enumerates climbers for special purposes including sun, shade, temperate climate, deciduous, evergreen, fruit or berries, herbaceous, annual, for conservatories, and so on.

The remaining three-fourths of the book covers specific categories of climbers. Each begins with a two-page introduction to the category mentioning some history, characteristics, number of species, flowering, pruning, pests, diseases, propagation, plant associations, and the most attractive attribute in this group. Symbols are used for sun requirements, pruning time, soil acidity, and, if applicable, a recommendation by the authors if well suited to conservatories, if suitable for all climates, and for Royal Horticultural Society's Award of Garden Merit. Numerous eye-catching color photos lining the pages add aesthetic appeal to cultivars in each group. Following are the seven categories, along with pertinent comments.

1) Temperate Deciduous: some of the best and most popular for flowers, foliage and leaf color where a permanent green curtain is not required, providing dense shade for summer; e.g., climbing hydrangea, wisteria, Virginia creeper. 2) Honeysuckles: most loved, used in cottage gardens, archways and arbors with pretty, fragrant tubular flowers, attracting bees, moths and humming birds; 180 sp., 1/3 of which are twining climbers; should be planted where one can appreciate the perfume; classic with roses. 3) Clematis: most popular, colorful, and useful for informal and sprawling effect, with silky, feathery seed heads providing a display; more than 200 species, mixing well with shrubs, perennials, trees, roses, honeysuckle and each other; many are bred for large flowers, e.g., 'Jackmanii'. 4) Temperate Evergreens: reputed for being dull, but have some of the most beautiful, showy and eye-catching flowers, e.g., passion flower; jasmine provides fragrance and ivies form a permanent green wall of foliage. 5) Roses: most popular and widely grown, come in a vast range of color, flower size and plant habit from selection and hybridization; create typical cottage garden style, mixed with climbers and shrubs; are scramblers where thorns attach and need to be tied; susceptible to pests and diseases; different kinds, e.g., species and hybrids; large-flowered varieties are listed by color. 6) Annual and Herbaceous: for temporary cover which die down and mix well with perennials; good for walls or fences that need regular maintenance; require light support; flower quickly and seed can be collected; e.g., golden hop, sweet pea, morning glory. 7) Conservatories: allow more range and diversity of selection; maintain minimum winter temperature of 50°F; provide optimum light; have flexibility of beds or containers; must consider north or south facing environment; e.g., allamanda, bougainvillea, mandevilla, passion flower, stephanotis, thunbergia.

The authors' experiences and knowledge obtained while botanists at the Royal Botanic Garden Kew are evident in this detailed yet down-to-earth compilation of climbing plants. The practical and colorful layout of this book will appeal to ornamental horticulturists, landscapers, growers, and gardeners and could be used as a horticultural reference text, as well. Alphabetical arrangement in groups provides easy access to information. It is similar to Growing Bulbs, The Complete Practical Guide by Brian Mathew, however the use of categories is advantageous for the diverse subject covered here rather than a combination of all plants in one list. Colored plates are exceptional and well placed throughout the text. The cost is reasonable. It is up-to-date and extensive, however the index is listed by botanical name only and should have a common name index added, as well. Overall, anyone interested in adding the vertical dimension of climbers to their lifestyle would benefit from this publication.

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Henry Mitchell on Gardening.

I don't remember how I learned about this book. It could have been one of those reviews of entertaining books for summer reading. At any rate, I ordered a copy from my local Barnes and Noble. When it arrived a few days later, I thought I would just look it over briefly. Well, that was my mistake - every spare minute went into it until I had turned the last page. Henry Mitchell's garden column "Earthman" appeared in the Washington Post each Thursday for over 20 years until his death in 1993. Two previous compilations of his columns have been published—The Essential Earthman and One Man's Garden. They are next on my list of books to read. Mitchell practiced his gardening on a city-sized lot (roughly 40 feet wide and 180 feet long) in the nation's capital so what he had to say in his column was pertinent to his neighbors in Washington, and much of it to the entire hardness zone 7. The principles of horticulture and life that he expresses so elegantly are useful everywhere.

Weather is always a concern to gardeners and farmers. Mitchell provides some thoughts on this topic:

- "The sooner the gardener loses certain kind of innocence the better, and there is no better place to begin with than the weather."
- "March is a chancy time in the garden, with temperatures from severe freezing to summer heat, but of course to go from winter to summer you have to pass March."
- "People who cannot tolerate the anxiety of possible damage to, say, early magnolia flowers should simply not grow them. Normal gardeners, on the other hand, soon learn to take the weather in stride. They know that if you refuse to plant anything that may be damaged by weather you will not have anything at all."
• "Mid-July is such a voluptuous season in the garden that every gardener rejoices in it, even if the heat is insupportable between ten and six - at least the garden is splendid at five or six in the morning, which is when the gardener trots out to pick perhaps a dozen tomatoes from his three plants."

Some lessons for life found in Mitchell’s writings include:

• "The point is that if you cannot manage ideal conditions, just do the best you can, as Nancy Reagan used to say, and of course be satisfied with such slight success as you achieve."

• "You have a choice, when your carefully thought out plans for summer flowers all fail, either to sulk and surrender the garden to bindweed or to say all is not lost; though much is a ruin, much remains."

• "Gardens are like people’s lives: they aim at different goals, all more or less legitimate. But this means a superb garden of one type will draw only blank astonishment from a gardener whose plot is of another type."

I’ve about given up reading garden columns. They are mostly lists of chores that must be done now or else the garden is forever in peril. Mitchell takes a much more relaxed attitude which suits my gardening temperament:

• “Hyacinths should be planted in October, in friable, rich, well-drained soil that crumbles easily when rubbed in the fist. So sue me. I did the best I could, and when the beautiful white hyacinth ‘Carnegie’ finally got planted within shouting distance of Christmas, the earth was not quite soggy but wetter than damp.”

• “I thought it would be nice to suggest something for you that you don’t have to do yet (as distinct from reminders that you should have done thus and so last fall) and something that will put you in mind of the lovely soft summer that is sure to come.”

Surely, this sample should entice you to visit your local bookseller or at a minimum attempt to convince your public library to add this great little book to its collection. Now those of us from the hinterlands can join in the fun known previously to only inside the Beltway gardeners.

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BOOKS NOTED
by Donald N. Maynard


At the heart of the book is a series of descriptions of particular gardens or garden features, each with a strong sense of design and none too complicated. The relationship with the site and the materials and plants used are analyzed in detail explaining the principles of design and planting that lie behind their success. Although some of the gardens are designed by professional designers, many are private gardens of a modest size and created by individuals.


This second book in a trilogy of gardening classics continues E.A. Bowles’s delightful and informative tour of his garden. Edward Augustus Bowles wrote his famous books My Garden in Spring, My Garden in Summer, and My Garden in Autumn and Winter in one year, providing an invaluable window on a master plantsman’s garden through the seasons. Where his first book captured the sights and scents of crocuses, daffodils, primulas, and tulips, My Garden in Summer chronicles the charms of roses, geraniums, peonies, and poppies, to name a few.


Stalking the Wild Amaranth is part detective story, part scientific study, part history book, part autobiography, and part blueprint for a new, ecologically wise landscape art. Above all, its message is positive: the Seabeach Amaranth has reappeared serendipitously in at least part of its range after being presumed extinct for 40 years, and there are many more plants that could also come back to life after a sort of dormancy. As Marinelli says, “ecologically sensitive gardening needn’t be a dreamy affair. As great gardeners have always done, we must reinvent our relationship with the rest of nature in a fertile, creative, and playful way.”


Raymond Evison, world authority on clematis, provides a fresh look at the genus by focusing not just on the popular large-flowered cultivars but also on the less-well-known species and their varieties, which make equally rewarding plants for gardeners, specialists, and collectors. The sheer range of flower color and patterning combined with a variety of flower shapes, from the large and flamboyant hybrids through to the delicate bell-shaped species, means that there is a clematis for everyone’s taste. If you choose your plants carefully, it is possible to have a clematis in flower in your garden from spring through fall, with flowers often followed by fluffy seedheads.


The narrative is high-spirited, riotously funny, and, at times, deliciously malicious. As important as the plants in his garden, however, are the various local characters who alternately delight and frustrate Nichols in his attempts to build a garden: Merry Hall’s ancient gardener Oldfield, who refuses to plant “boobs”, the scheming Miss Emily; “Our Rose, the local florist with delusions of grandeur; and of course, Gaskin, the omniscient and beatific factor who keeps Mr. Nichols’ world from falling to pieces. But what lures readers to return to Merry Hall again and again are the rapturous discussions on plants and gardening. As Nichols warns at the beginning of his book, “When I begin to write about flowers, I lose all sense of restraint, and it is far, far too late to do anything about it.”