Book Reviews

KNOTT'S HANDBOOK FOR VEGETABLE GROWERS, FIFTH EDITION. D.N. Maynard and G.J. Hochmuth. 2006. John Wiley and Sons, Inc., 111 River Street, Hoboken, NJ 07030. 640 pages. \$75, paperback. ISBN: 978-0-471-73828-2.

The first *Handbook for Vegetable Growers* was published in 1956 by the late Dr. James Edward Knott, professor of vegetable crops, University of California, as an effort to “bring together in as concise a form as possible much of the widely scattered information that relates to vegetable production.” I have a copy of this original handbook with its green cover on the bookshelf in my office. The 2nd, 3rd, and 4th editions were necessitated by the tremendous amount of new information and rapid developments in certain areas, such as pest management, irrigation, and postharvest technology. The 4th edition of the handbook was published in 1997 by Maynard and Hochmuth. The 5th edition, also written by Maynard and Hochmuth, reflects the realization that to be truly useful, a reference such as *Knott's Handbook for Vegetable Growers* needs to be periodically revised to “really provide up-to-date information” to the end user.

The handbook is again organized into 10 major sections plus a very extensive index at the end of the book. Again one of the strengths of this new 5th edition of the handbook, as was the case with the 4th edition, is the number of excellent graphs, tables, and charts that are in each section. The user can readily find the information needed, whether it is calibration of granular applicators, effects of some fertilizer materials on the soil reaction, soil temperature conditions for vegetable seed germination, or a blueprint of a single anti-siphon device assembly. Information that is new to this addition is world vegetable production, BMP (best management practices), organic crop production, food safety, pesticide safety, postharvest problems, and minimally processed vegetables, plus a wealth of website links to find related vegetable information. In the new age of information being put on the web, these linkages are extremely valuable to the person looking for additional information on a particular subject. The text of the handbook is divided into 10 parts.

Part 1, “Vegetables and the Vegetable Industry,” provides a comprehensive list of the botanical names of vegetables in nine languages and a wealth of statistics on vegetable production, consumption, and nutrition.

Part 2, “Plant Growing and Greenhouse Vegetable Production,” is subdivided into transplant production and greenhouse crop production. The transplant production section is an excellent source of information on all aspects of growing vegetable transplants, including containers,

seeds, temperatures, time requirements, mixes, fertilizers, irrigation, and some common problems. The greenhouse crop production section is oriented toward information on cultural management, nutrient solutions, and tissue composition.

Part 3, “Field Planting,” provides information on such topics as temperatures for optimum growth, scheduling of crops, seedling emergence, seed requirements, spacing for various vegetable crops, precision seeding, vegetable propagation, plastic mulches, row covers, and windbreaks and additional sources of information on plasticulture.

Part 4, “Soils and Fertilizers,” covers everything from organic matter, soil-improving crops, manures, soil texture, fertilizer materials, plant analysis, soil tests, application rates from major growing regions in the U.S., and finally nutrient deficiency symptoms and micronutrients.

Part 5, “Water and Irrigation,” focuses on rooting patterns, soil moisture, irrigation delivery methods—surface, overhead, and drip or trickle—and water quality.

Part 6, “Vegetable Pests and Problems,” is a guide to problems caused by air pollution, nematodes, diseases, insects, and wildlife. It provides information on integrated pest management, pesticide-use precautions, equipment, and application. There is new information on pest management in organic production systems.

Part 7, “Weed Control,” provides information on herbicides, equipment and application, control practices, and effectiveness and longevity of materials. As with other sections that contain information on pesticides, there are no specific chemical or product names recommended, as these change rapidly and would render this handbook quickly outdated. Users are encouraged to contact universities or extension services in their own state for particular recommendations on pesticides.

Part 8, “Harvesting, Handling and Storage,” is an excellent source of information on predicting harvest dates and approximate yields, cooling requirements, storage conditions, sensitivity to chilling and ethylene injury, US Grade Standards, containers and vegetable marketing, and new information on food safety, certainly a hot issue.

Part 9, “Vegetable Seeds,” contains information on seed labels, germination, testing, seed production, seed yields, storage, vegetable varieties, and sources.

Part 10, “Appendix,” is an excellent source of information on where to find additional information, such as the addresses of vegetable seed companies, periodicals for vegetable growers, and handy tables on US units of measurement and conversion factors for US and metric units as well as conversions for rates of application. Also, the addresses of where to find information on vegetables in the different states are contained in the appendix.

The index at the end of the handbook covers 56 pages and is very extensive and makes it extremely easy to locate any subject or topic.

The 5th edition's convenient, portable size and sturdy, flexible cover with pages that lie flat (an improvement over the 4th edition, which would not lie flat) make it easily at home in an extension adviser's or crop consultant's briefcase, a student's backpack, or the seat of a grower's pickup truck. It certainly provides the user with a wealth of current information on vegetable crop production and marketing in a well-organized and clearly

presented manner. In the 5th edition, Drs. Maynard and Hochmuth continue to fulfill the objective of Dr. Knott as stated in the beginning of the review, and this handbook is certainly a valuable addition to the reference shelf of any one interested in commercial vegetable production.

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VEGETABLE DISEASES. A COLOR HANDBOOK. Steven T. Koike, Peter Gladders, and Albert O. Paulus. December 2006. Academic Press, an imprint of Elsevier, 30 Corporate Drive, Suite 400, Burlington, MA 01803. 448 p., 633 color plates, \$170 hardcover. ISBN 10:0-12-373675-7, 13:978-0-12-373675-8.

Public and private vegetable crop advisers will find *Vegetable Disease. A Color Handbook* to be an indispensable part of their reference libraries. Because of its size, weight, and value, it is not likely to be found in a field pickup truck. Educators and growers also will find the book to be a useful reference.

The book focuses on diseases caused by pathogens. Introductory chapters (Chapters 1 through 4) focus on vegetable production and on causes, diagnosis, and control of diseases. The remainder (Chapter 5) of the book is arranged by diseases of vegetables, which are listed alphabetically according to family, genus-related, or common names. Family and genus-related listings include several vegetables, whereas the common name listings each include only one individual vegetable. Finally, specialty and herb crops, including sweet corn, are grouped together in a single section of this chapter. I found this arrangement to be cumbersome. For example, should I look for a vegetable under its family, genus, common, or specialty name? Familiarity gained by use of this book will

help to overcome this difficulty. Diseases of some important vegetables—potato, sweet potato, and mushroom—are not included.

Information on each disease is arranged with topics on introduction and significance, symptoms and diagnostic features, causal agent, disease cycle, control, and references. Fortunately, control recommendations focus on sanitation, seed treatment, optimum crop management, rotation, and use of resistant cultivars rather than chemical controls that may soon become outdated.

The images of disease symptoms are of uniformly high quality. A number of people are recognized in the acknowledgments for contributions of photographs, but I could not find credits attached to any figure. The value of the book would have been increased immensely if it had been provided with a CD-ROM of the excellent images, allowing their use in educational settings.

The emphasis, or lack thereof, on a crop is not related always to the economic importance of that crop. For example, the section on rhubarb includes 10 diseases and four images, and the section on broad bean includes seven diseases and 16 images. On the other hand, sweet corn is covered in a single disease (smut) and image. In contrast, the 2006–2007 *Vegetable Production Handbook* for Florida lists 14 diseases affecting sweet corn.

The disease section is followed by a useful glossary of terms used in the book. Finally, the book appears to be well indexed—an important feature in a reference book. I did notice that cantaloupe and muskmelon (*Cucumis melo*) were both included in the index, but did not refer to the same pages.

Vegetable Disease. A Color Handbook is an excellent reference that should occupy a prominent place on the bookshelves of vegetable crop advisers, educators, or growers. Unfortunately, the high cost may prohibit its wide-scale use.

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