

## Book Review

**Integrated Pest Management for Avocados (Publication 3503).** Steve H. Dreistadt. 2008. University of California, Agriculture and Natural Resources, Communication Services, Richmond, CA 94804. 222 p., incl. index, and appendices. \$35.00 soft-bound. ISBN-13: 978-1-60107-420-1.

*Integrated Pest Management for Avocados* is an attractive and useful textbook and reference guide for the grower, student, or scientist. The book is executed beautifully with an abundance of full-color photographs that are available as a handy deck of cards for field identification of pests and diseases. The book and flashcard decks are available on the publisher's website: <http://anrcatalog.ucdavis.edu>, along with an entire series of Integrated Pest Management books, each dedicated to one crop. The avocado book makes one want to see and collect the rest of the books in the series.

Integrated Pest Management (IPM) is defined clearly on page one in a handy shaded box. Several shaded boxes appear throughout the book, signaling that should be read. These boxes are easy to find, easy to read, and easy to understand, and along with the tables, lists, and appendices supply a fairly good summary of the information necessary for managing an avocado grove. However, the text and captions add much to the understanding of this comprehensive method of pest management, so do not skip over those good parts.

Best Management Practices (BMP) are stressed throughout the book. Some of the most helpful charts, tables, and boxes include Pests of Avocado with Substantial Biological Control; Insecticide and Miticide Toxicity to Natural Enemies and Pests; Quick Guide to Safe Pesticide Use; Thrip Identification

Guide; and Caterpillar Identification Guide. Great websites, noted in the book, such as the UC Davis Weed Research and Information Center (<http://wric.ucdavis.edu>) provide photographs of herbicide injury. The websites listed and the additional resources provide the reader with copious and cogent facts, techniques, and illustrations and photographs on almost any facet of growing.

The material in this book is presented in uniform, well-structured chapters. An introductory chapter on the growth and development of the avocado is followed by chapters on Cultural Practices and Abiotic Disorders, Diseases, Insects, Mites, and Other Invertebrates, Weeds, Vertebrates, and Harvest Management for Fruit Quality. Each chapter lists and describes the pests and gives the genus and species of each pest followed by sections on Symptoms and Damage, Seasonal Development, and Management Guidelines. A life cycle figure is included for pests for which timing control with life cycle stage is critical. The diagrams, illustrations, graphs, and figures are as sharp and clear as the photographs.

Two circular diagrams depict the seasonal nature of the avocado crop and are an elegant presentation of time and seasons. The Quick Guide Timeline is useful, and readers may want to copy it for ready reference. Another Quick Guide that would be good on a bulletin board at work covers insecticides and miticides. The guidelines boxes are especially good as are the check-off boxes for prevention of adverse effects from pesticides, fungicides, and herbicides to wildlife. Another good check-off box set of guidelines is the Pesticide Safe Use Tips (another bulletin board keeper). A figure of the Timeline for Cultural and Management Practices is so valuable that it could be given to employees for ready reference.

The section on plant nutrients, with its handy tables that sum up everything in the chapter, is another useful series of easy-to-

read boxes. However, I had difficulty deciphering the caption under a figure regarding alkalinity. Perhaps a table would be more useful than a graph in this instance. Two diagrams, old favorites, are included: the water cycle and the pH vs. nutrient availability diagrams, each being nicely depicted.

The section on injuries displays bleeding bark and a canker from phosphorus injections, mechanical injuries to fruit, and sunburn injury. The photographs in this section are also stunning. A section on Frost, Freeze Injury, and Disorders of Unknown Cause rounds out the chapter. A cold damage chart with critical temperatures for cultivars and races of avocados adds important information. The chapter on Disease is a picture guide of affected avocado trees and fruit. The life cycles of the diseases are presented here followed by several management guidelines. Nothing seems to be excluded in this handy and valuable guide.

The next chapter, Insects, Mites, and Other Invertebrates, covers common name, genus and species, damage, description, and seasonal development of each pest, followed by BMP and biological control and cultural control. Some of my favorite photographs are the close-ups of insects. They are ugly and interesting, and I wonder how the photographer managed to take each photo. The intriguing photographs of insects make this my latest favorite coffee table book, literally.

The coverage in each chapter is uniform and thorough, a real feat of writing, editing, and publishing. The photographs are excellent and the quality of the paper, printing, and binding of *IPM for Avocados* are exceptional. The book is full-size (8-1/2" x 11"), and the layout of each page is exquisite. This book is beautiful as well as useful. Many readers will want to collect the whole series of books on IPM.

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