



Introduction to Fruit Crops

by Mark Reiger, Food Products Press, 2006, 527 pages, softbound, \$69.95

Reiger has written an introduction to a wide variety of both temperate and tropical fruit crops. The fruits covered are almond, apple, apricot, banana and plantain, blackberry and raspberry, cacao, cashew, cherries, citrus, coconut, coffees, cranberry, date, grapes, hazelnut, macadamia, mango, oil palm, olive, papaya, peach, pear, pecan, pineapple, pistachio, plum, strawberry, and walnut. A chapter devoted to each of these fruits provides taxonomy, history, production values, botany, general culture, harvesting and handling, nutrition, and bibliography.

The first chapter of the book provides an overview of each of these sections as well as basic biology, propagation, and pest management. The book concludes with appendices containing a long list of fruits and their scientific names, unit conversions, and a very good glossary: containing everything from achene to hydrocooling to whip. There are approximately 30 color plates which appear to be of good quality and compliment to the text well (again, the reviewed copy only had black and white versions of the plates). There are also numerous graphs, tables and photographs within the text.

The content of each chapter on a fruit logically moves from the basic taxonomy to cultivars used in commercial production, primarily in the United States for fruit grown here. For those fruits not widely grown in the U.S., the discussion covers major cultivar groups and where they are grown; for instance with banana, the Giant Cavendish subgroup. Citrus is ambitiously covered in a single chapter, but discussion is clearly divided, where appropriate, into the different species and types. The chapter sections on the origin, history of cultivation and non-food uses of the fruits proves extremely interesting. Most people will find new and intriguing insights on both familiar and unfamiliar fruits.

The production section covers worldwide production, production in the U.S., and data on imports and exports. Each fruit has a botanical description of the plant, flowers, pollination and fruit. General culture covers soils and climate, propagation, rootstocks, planting design/training/pruning, and pest problems. Climate includes consideration of any need for chilling requirements, photoperiodic responses, and cold or frost susceptibility. By providing information such as the genera and species of insects and diseases, the text assists those desiring more information, e.g. pest's life cycles. Each chapter concludes with discussion of maturity and harvesting of each fruit as well as nutrition and common uses of the fruit: fresh, canned, jams, cooked, juices, etc.

This book is excellent in its wide coverage of fruit crops grown around the world. There is much insight into how each of the crops is grown, but if the reader is looking for more details on how to grow those crops one may come away lacking. The book does not attempt to provide those specific details for growing and one should not expect them from it. For example, in the chapter on strawberries overhead irrigation is mentioned as a means of frost protection but not precisely how and when a grower needs to utilize it. Similarly in grapes, balanced pruning is briefly discussed but not the details of how a grower goes about achieving balanced pruning.

A few of the illustrations are computer generated and awkward, but are still able to get the point across. The text is well written and mistake free.

This book serves well its intended purpose of being an introduction to fruit crops and their production. Reiger has clearly spent much time in researching the material and drawn from a wealth of experience of his own and presumably others. This book will be a superb choice for an introductory course in either temperate or tropical fruit crops. It will also work in a production oriented course but would require some details to be provided by the instructor. Undergraduates will find this book invaluable even for those not specifically in pomology, and graduate students will find it useful for those crops with which they are unfamiliar.

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Chew on This

by Eric Schlosser and Charles Wilson, Penguin Books, London, U.K., 2006, Paper, \$8.95, 264 pages, ISBN 0-141-31844-9

Chew on This presents an exposé of the fast food industry that is hard-hitting, insightful, and well-documented. Sub-titled "Everything You Don't Want to Know about Fast Food," the book is a popularized version of the first author's incredible bestseller *Fast Food Nation*. In fact, given the current addiction in our country to fast food and the consequent health problems associated with obesity, it is a book that should be in the hands of all teenagers and one that could shape their eating habits for a lifetime.

There is a brief history of fast food, starting with how the first hamburger was conceived by Charlie Nagreen at a county fair in Wisconsin in 1885, when he squeezed a meat ball between two pieces of bread so that it would not roll off people's plates as they walked around. Because of the bad reputation of ground meat as a product of scraps and harbor for all

kinds of contaminants, it took a long time for this innovation to catch on with the public. A number of small restaurants began to popularize this new type of food, and today it is everywhere.

We are more familiar with the growth of McDonald's and other now-famous fast food brands that were developed by self-made men who often had little formal education and a knack for advertising and creative delivery to the public. What makes *Chew on This* so entertaining is the lively presentation of the history and growth of what is today a huge industry that is personal to many of us on a daily basis. The fact that the volume of business and treatment of employees are so representative of all that is negative in today's industrial food system model is usually lost on the unknowing patrons who line up to buy a Big Mac® with fries that are laced with fat to be washed down by a giant soda full of empty calories.

Fast food is a cheap source of calories because it is based on economies of scale in production, and on low wages that are kept at a minimum through clever scheduling of workers' shifts and conditions that cause most employees to quit after a few months. There are few benefits, but the fast food outlets provide entry-level jobs for young people who live at home and are willing to work odd hours in order to buy a car, the latest DVD player, or clothes, and to meet the other desires of teenagers to join the consumer culture. There are few career jobs in this business, and even those who choose management are under tremendous pressure to keep wages low, hours uncertain, jobs repetitive, and prices competitive with the other fast food shops in the neighborhood.

The advertising in this industry is costly, and is often directed at the most vulnerable in society – children who are both the best customers and the least capable of figuring out that they are being manipulated. There is a continuing struggle for market share and brand recognition, and the companies compete with new gimmicks such as toys given away with Happy Meals®, clever packaging, playgrounds on site, and marketing agreements with movie corporations. This advertising has also permeated the school systems, where fast food has replaced many of the home-cooked-from-scratch items that were healthier but more costly to prepare. School administrators desperate for scarce funds have given away the shop, at a great cost to children.

With the growing societal concerns about nutrition and health, the industry has taken on a campaign of “greenwashing” their image by offering salads, fruits, and alternative servings that on the surface appear more healthy. In fact the healthy alternatives represent a small fraction of the sales in the fast food shops, as people continue to purchase the burgers, fries, and soft drinks that make this food a nutritional disaster. And keep in mind that the goal of multinational corporations is profit, and even by

law they are required to serve their stockholders with maximum returns rather than serving the public with products that improve their lives. Of course all the advertising only adds cost to the products, not nutritional value.

The last chapter of the book, *Your Way*, borrows from the clever advertising of a popular fast food brand, and twists this into a message of hope for better alternatives in the future. There are descriptions of several fast food restaurant chains that do serve better products, that treat employees well, and that appear to be in business to benefit the public as well as profits. Even more important are alternatives such as the school gardens and nutrition programs in Berkeley, California, that were begun by popular organic food chef Alice Waters and inspired by her upscale Chez Panisse restaurant and financed by her foundation. This is a model of what could show the way for a healthier future for our children, with an indoctrination of how they can grow and prepare some of their own food and become aware of both nutrition and where food comes from.

Compared to *Fast Food Nation*, this book is shorter and more geared to an audience of first-year college or high school students, a group that badly needs to receive the message about nutrition and health. It is well documented, with 60 pages of notes and the index. The mixture of references to U.S. dollars and British pounds will be confusing to some younger audiences, but a useful lesson to those parochial students and others who only know the U.S. system. Like most exposés, the book is focused on negative aspects of the topic with only a short reprieve at the end that provides positive alternatives. Yet given the magnitude of obesity in the U.S., the denial by fast food companies that they share any blame in this situation, and the complacent behavior of most of our population in allowing their children to be brainwashed by advertising this is a valuable book for our society. It would be useful in classes in nutrition, in agriculture, and in economics. The book is easy to read, and highly topical to everyone who ingests fast food on a regular basis. It is a valuable resource that should be read by every teenager, and by their parents.

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The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life, 10th Anniversary Edition
by Parker J. Palmer, Jossey-Bass, A Wiley Imprint, San Francisco, California, 2007.
240 pages, \$27.95 cloth, ISBN 978-0-7879-9686-4

A decade after *The Courage to Teach* was published, Dr. Parker Palmer has returned with the tenth-anniversary edition featuring new content and

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an audio CD. Parker Palmer has been an advocate for teachers and others for nearly 40 years. He says that good teaching can't be reduced to technique, but is rooted in the identity and integrity of the teacher. In the first chapter, he explains that in every class he teaches, his ability to connect with the students, and to connect them with the subject, depends less on the methods used than on the degree to which he knows and trusts his selfhood – his willingness to make it available and vulnerable in the service of learning.

The book visits the fear that a teacher and student bring to the classroom. Some fear is healthy while other student and teacher fears paralyze education. A teacher needs to be aware of the paradoxes in teaching and learning. This awareness also guides teachers in thinking about classroom dynamics and in designing the kind of teaching and learning space that can hold a classroom session.

As Dr. Palmer moves from the teacher's inner life in the first three chapters to community in education in the next three chapters, he explains that the first three chapters were about cultivating the inner ground from which community grows; the next three chapters are about growing community from that inner ground into the classroom and larger world. Several models of community in education are explained. The question asked is do they enhance and advance the educational mission of knowing, teaching, and learning?

The final chapter shifts from the practice of teaching to the question of educational reform. Is it possible to embody our best insights about teaching and learning in a social movement that might revitalize education? In a new Afterword, "The New Professional: Education for Transformation," he explores ways of educating the kind of person who will serve the world well in any profession.

The Courage to Teach has transformed hundreds of thousand of lives. In addition to teaching, it has attracted other disciplines, including medicine, law, politics, ministry, philanthropy and organizational leadership. This book is a must for every teacher. It would be an excellent book for a required outside reading in a graduate or undergraduate educational methods or strategies course. For those with teaching experience, this book could be the reading required for a motivating workshop designed to renew teachers. And of course, any teacher (preschool through university) who wants the challenge to go beyond the minimum and pursue excellence will find this book useful, inspiring and uplifting.

One person recommending this book indicated that *The Courage to Teach* is a book of philosophy, a book on character and on the kind of people it takes to be great at whatever occupation they aspire. The reader can just substitute their "occupation" in place of teacher throughout the book. The bonus audio CD accompanies the book, featuring an 80-minute conversation between Parker Palmer and two of his colleagues from the Center for Courage & Renewal.

They reflect on what they have learned from working with thousands of teachers, physicians, clergy and others who yearn for greater integrity in their professional lives.

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An Introduction to Plant Breeding **by Jack Brown and Peter Caligari, Blackwell** **Publishing Inc. Malden, MA, 2008. \$79.99,** **224 pages. ISBN 978-1-4051-3344-9**

This new textbook gives an overview of the main concepts and principles of plant breeding. After an introductory chapter, sections cover modes of reproduction, breeding objectives, breeding schemes, genetics and breeding, predictions, selection, alternative techniques, and practical considerations. The text is shorter than some other available plant breeding texts, which has resulted in decisions being made about topics to cover and their depth of coverage. For example, six pages are devoted to breeding for pest and disease resistance, and the role of people, political and economic criteria in determining breeding objectives are discussed in three pages. There is very little coverage, on the other hand, of breeding for abiotic stress. All breeding methods for self-, cross- and asexually propagated plants are discussed in a 24-page chapter.

There are no introductory materials for the use of molecular genetics in breeding, and there is a very short section on this topic. The chapter on prediction includes sections on calculation of heritability, combining ability, and the use of Griffing and Jinks models for prediction of components of heritability. The sections on mutagenesis, interspecific hybridization, and marker assisted selection are short.

The section on plant genetics and their role in plant breeding comes after the breeding schemes chapter. It seems backwards to me, but obviously instructors using this text can change the order of coverage. The chapter on practical considerations is a catch-all. It includes brief comments on field experiment design, a short section on greenhouse management, less than two pages on artificial hybridization, and a short section on procedures for release of new cultivars.

Regardless of the amount of coverage, discussions are usually well done. Figures used throughout the text are quite useful and easy to follow. Each chapter ends with a series of "think questions." These questions are truly ones that will require students to understand and synthesis what they have learned in each chapter and are among the best set of evaluation tools I've encountered in any text.

There are some quirks in the text. For example, the authors create acronyms such as DUS (distinctness, uniformity, and stability) of cultivars, as well as

VCU (value for cultivation and use), which are probably not necessary given that the world is awash with acronyms. The section on quantitative trial (sic) loci has, what I assume to be, a typographical error in its title.

There is some unevenness in the expectation of student background. For example, in the modes of reproduction chapter the term “cutting” is defined in a table, while in a two-paragraph section on reproduction by apomixis there are many new terms that are left undefined. While methods for calculation and use of the chi-square test are thoroughly described, there is a figure on degree of skewness of a six loci two-allele system with no dominance, one dominant locus, and additional modes of gene action with little background provided. Given the many new terms introduced in a plant breeding textbook, glossaries are useful for students and instructors alike. This text does not have one.

Plant breeding is heavily quantitative, and this text reflects the need to teach students the specific application of statistics to conduct plant breeding research. However, the text makes an assumption that students have already obtained this background. For example, one question in the breeding objectives section provides data from a taste test analysis. This is an important breeding objective, and one that can be used to teach many principles of plant breeding. However, this question asks “without using second order (or higher) statistics, what are your conclusions?” The sections on A scaling and joint scaling is another example of topics that assume the reader has a strong background of statistics. From my teaching experience at a number of land-grant universities, students will need to have at least two semesters of statistics to be able to understand the use of statistics in this text (which includes calculus – a lost art among current genetics and breeding students).

The back cover notes that the text “has been designed to serve as a core text for undergraduate and postgraduate courses in plant breeding, plant sciences and agricultural sciences.” This probably

paints too broad a picture for the use of *An Introduction to Plant Breeding*. The textbook would be too advanced and specific for an undergraduate agricultural science or plant science course, and is probably too advanced in parts and too short in other sections to serve an undergraduate or introductory plant breeding course. Blackwell Publishing, Inc. has recently published two other plant breeding texts, *Breeding Field Crops*, fifth edition, by Sleper and Poehlman (2006), and *Principles of Plant Genetics and Breeding* by Acquaah (2007). Although overlapping, the books have different audiences.

I used the Acquaah book for the first time this past fall semester in an introductory plant breeding course. Students in the course come from several majors, including crop science, horticulture, and ag education. They include both graduate and undergraduate students, and many have not had a genetics or statistics course. Students were interested in everything from breeding forest trees to perennial fruit crops to annual ornamentals to cotton. Students in the course rated the Acquaah text very highly. In many colleges and universities, students enrolled in the introductory plant breeding course are primarily interested in breeding agronomic plants. For them, the Sleper and Poehlman book provides both a broad background on general plant breeding topics and follows this with specific details for widely grown agronomic crops.

The Brown and Caligari text is well-suited for graduate students and may serve best as a foundational text for an advanced plant breeding course. To my knowledge, only the 1987 *Principles of Cultivar Development* by Fehr provides a similar strong statistical base to breeding concepts.

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