

Journal of the American Pomological Society 63(1):27-28 2009

## **BOOK REVIEW**

### **The Peach: Botany, Production and Uses**

**2008. Edited by D. R. Layne and D. Bassi**

*The Peach* is a new book that provides a comprehensive account of diverse aspects of peach biology and cultivation. It spans a wide range of information, from ancient Chinese cultural lore to advanced genomics. Consisting of 22 chapters authored by eminent researchers, the book can be conceptually divided into six sections, dealing with peach origins, genetics and breeding, propagation, physiology and orchard management, diseases and pests, and finally, fruit quality and post-harvest management. Each chapter is a thorough review written by recognized experts on the subject, most ending with a conclusion highlighting future challenges or even philosophical considerations. The volume is strengthened by the inclusion of many useful tables, figures and color images.

The first chapter covers the botany, taxonomy and phenology of peach, including the genetic basis for some Mendelian morphological traits, and a description of several wild peach relatives in China. Chapter 2 delves into the long history of peach cultivation in China, with a few quotes in Chinese characters for those who can read them. The current status of peach cultivation in China, the world's foremost peach-producing country, is also reviewed in detail.

Six chapters are devoted to genetics and breeding. Chapters on classical genetics and molecular genetics are followed by separate reviews on the breeding of low-chill, fresh market and processing peaches, detailing the special considerations and challenges unique to each. Past and present breeding programs in all corners of the globe are briefly described. A

chapter on the breeding and selection criteria for peach rootstocks follows. The rootstock chapter also contains a concise description of important existing rootstocks, with their strengths and limitations specified.

The chapter on propagation is thorough, covering nursery seedlings, hardwood and semi-hardwood cuttings, micropropagation and stoolbed techniques.

Physiology and orchard management considerations are reviewed in the next five chapters, including a wealth of useful information on carbon partitioning, pruning and training, orchard systems, techniques for managing crop load (pre-bloom, bloom, post-bloom), nutrient and water needs of peach trees, weed management and cover crops. There are interesting sections on topics such as the interaction between crop load and biotic or abiotic stresses, and the effects of orchard floor management on biota and orchard microclimate.

Diseases and pests of peach are thoroughly documented. Chapters on diseases caused by fungi, prokaryotes and viruses, including symptoms and control measures, are well-supported by a series of excellent images in black and white and color, as is the chapter on insect and mite pests. A fifth chapter covers nematodes, including root-knot, ring, root-lesion and dagger types, and contains a useful table detailing the reactions of numerous rootstock genotypes to these different nematodes.

The last three chapters review considerations particular to the fruit. Pre-harvest cultural practices affecting fruit quality are identified and described, followed by discus-

sions on ripening and post-harvest physiology, techniques of harvesting and post-harvest handling, and post-harvest disorders.

*The Peach* contains the treasury of valuable information that one would expect to find in such a resource, as well as a few unexpected miscellany, for example, a description and photos of ornamental peach genotypes with striking chrysanthemum-like flowers, an in-depth discussion of peach allergens, and even a brief consideration of the uses and disposal considerations for peach culls. A delightful

tidbit in the preface reveals how the monkey king attained immortality by eating peaches. As is usual for CAB books, the volume itself shows good quality binding and paper, is superbly edited, and has a good index. *The Peach* would be a useful purchase for researchers, extension personnel, students, fruit growers, horticultural libraries, and anyone with an interest in this seductive and succulent fruit.

-- reviewed by Cheryl Hampson



## CALL FOR WILDER SILVER MEDAL NOMINATIONS

The Wilder Committee of the American Pomological Society (APS) invites nominations for the 2009 Wilder Silver Medal Award. All active members of APS are eligible to submit nominations. The award was established in 1873 in honor of Marshall P. Wilder, the founder and first president of APS. The award consists of a beautifully engraved medal which is presented to the recipient at the annual meeting of APS, held during the American Society for Horticultural Science annual meeting.

The Wilder Medal is presented to individuals or organizations that have rendered outstanding service to horticulture in the area of pomology. Special consideration is given to work relating to the origination and introduction of meritorious fruit cultivars. Individuals associated with either commercial concerns or professional organizations will be considered if their introductions are truly superior and have been widely planted. Significant contributions to the science and practice of pomology other than through fruit breeding will also be considered. Such contributions may relate to any important area of fruit production such as rootstock development and evaluation, anatomical and morphological studies, or noteworthy publications in any of the above subjects. Information about the award, past recipients, etc. can be found on the APS web site at <http://americanpomological.org/wilder1.html>.

*To obtain nomination guidelines, please contact committee chairperson:*

Dr. Douglas Archbold, Department of Horticulture, University of Kentucky  
Phone: 859-257-3352; fax: 859-257-2589; e-mail: [darchbol@uky.edu](mailto:darchbol@uky.edu)

Nominations must be submitted by May 1, 2009.