

Preface

Issues in New Crops and New Uses is the Proceedings of the 6th National New Crops Symposium on the theme *Creating Markets for Economic Development of New Crops and New Uses* held in San Diego October 14 to 18, 2007. The five previous proceedings include *Trends in New Crops and New Uses* (2002), *Perspectives in New Crops and New Uses* (1999), and *Progress in New Crops* (1996), all three published by ASHS Press; *New Crops* (1993) published by Wiley; and *Advances in New Crops* (1990) published by Timber Press. All volumes can be found on the NewCROP website (www.hort.purdue.edu/newcrop) under CropResources and the articles are searchable in database form. The contents of these volumes represent a virtual encyclopedia and sourcebook of information on research and development in new crops and new uses and have proven to be indispensable as a source of information for efforts to broaden diversity in agriculture.

The present symposium had a distinctly different spirit from the previous ones, a reflection of the interest and excitement that new crops could play in the national struggle for energy independence. For the first time, the participants had the feeling that our previous pleas for a place on the table of agricultural research were being seriously listened to and appreciated. Government speakers included two USDA Undersecretaries, Drs. Gale Buchanan and Thomas C. Dorr; Director of the Office of Energy Policy and New Uses for USDA, Dr. Roger Conway; USDA, Agricultural Research Service, Pacific West Area Director, Dr. Dwayne Buxton; National Program Leader, Dr. Richard F. Wilson, National Program Staff along with dozens of other speakers from universities, private sectors, other public agencies, and growers all underscored the theme that agriculture had begun to enter a new era, one that clearly involves new crops and new uses. The enthusiasm was contagious.

The present symposium was attended by about 150 registrants and included a mix of industry representatives, government, academics, and farmers and representatives from across the country and overseas. The 4 day program included invited papers, posters, panel discussions, a banquet and tours of Ecker Poinsettia Ranch, Quail Botanical Gardens, and the Wild Animal Park Gardens. A dinner was held for new crop stakeholders to discuss the challenges and commonalities in bringing new crops to market with the intention of forming an ongoing coalition group. The discussion was vigorous and there was heated exchange of information in both the formal presentations and corridor discussions. Our keynote speakers included the Under Secretary for Research Education and Economics, Dr. Gale Buchanan, and the Under Secretary for Rural Development, Dr. Thomas Dorr. Cosponsors included the USDA, ARS, Office of Technology Transfer. We gratefully acknowledge many of our colleagues for their assistance with the symposium. Among the many were the AAIC registrar Ms. Gale Dahlquist, and Dr. Francis Nakayama, the abstract and program editor.

It is our distinct pleasure to dedicate this volume to two scientists who have labored in the arena of new crops: Francis Nakayama and Yosef Mizrahi.

Francis Nakayama officially retired from the USDA-ARS in 2003 after 43 years of government service. For the latter half of his career, he worked to develop guayule as a commercial rubber and latex crop. This involved the agronomy of planting, maintaining, and harvesting the crop, as well as development of chemical procedures to extract the rubber/latex for laboratory analyses and for commercial production. Most recently he has been researching the pesticidal properties of the bagasse left after latex extraction for use in by-products resistant to insects and rot organisms. He was the Research Leader of the Arid Zone Crop Production Group from 1984 to 1989. He has not slowed down since retirement and is still a collaborator with the New Crops USDA-ARS-ALARC group. Francis is a Fellow of the American Institute of Chemists, of the American Association for the Advancement of Science, of the American Society of Agronomy, and of the Arizona-Nevada Academy of Science. He was awarded the A.E. Thompson Career Achievement Award from the Association for the Advancement of Industrial Crops (AAIC). Francis has been Editor-in-Chief for the Americas of *Industrial Crops and Products*, the leading journal for all aspects of new industrial crop production and processing. He continues to serve AAIC as co-editor of the newsletter, and as abstract editor for annual meetings (including this one).

Yosef (Yossi) Mizrahi, a plant physiologist from Ben-Gurion University, Beer-Sheva, Israel and former head of the Institute of Agriculture and Applied Biology has participated in each of the six new crops conferences. Yossi has devoted his career to research in Horticultural Science and has achieved outstanding contributions in his long and production career including the development of basic physiological work on the *rin* and *nor* mutants

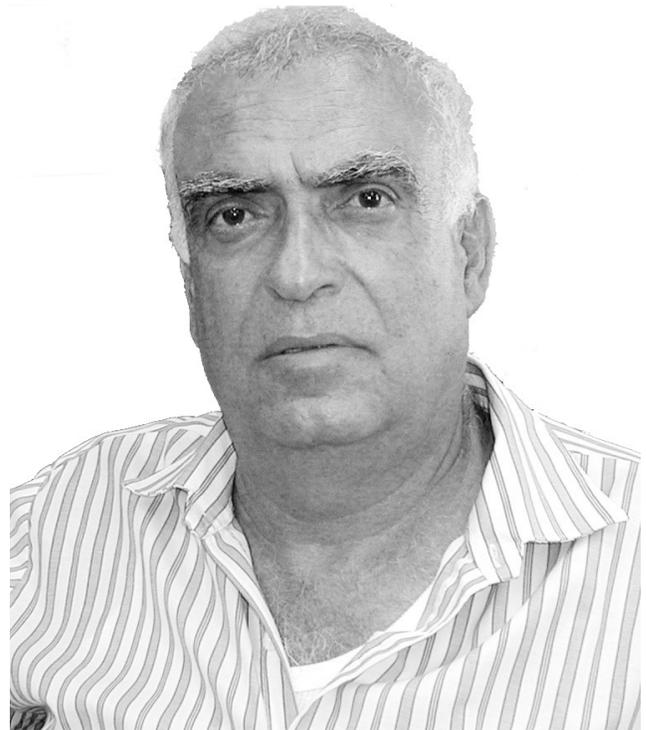
to achieve long shelf life in tomatoes, the use of vine harvested tomato, and flowering and fruit set in jojoba. His work over the last two decades has concentrated on new fruit crops for the arid areas of Israel including cactus apple (*Cereus peruvianus*), yehib (*Cordeauxia edulis*), marula (*Sclerocarya birrea*), mongongo (*Ricinodendron rauteneni*), ber (*Ziziphus maritima*), yellow pitaya (*Selenicereus peruvianus*), and various pitaya species of the genus *Hylocereus*. His breeding efforts in *Hylocereus* and *Selenicereus* assisted by his many students and colleagues have literally started to “bear fruit.” His new selections are being commercially planted in Israel and Australia with exports to Europe and show promise to becoming the important new fruit crop of the 21st century, world wide. Yossi is a splendid example of what can be accomplished by keen intellect, persistence, optimism, and love of new crops.

Conference Organizing Committee

David Dierig, USDA-ARS-Arid Lands Agri.Research Center
Jules Janick, Purdue University Center of New Crops and Plant Products
Robert Myers, Thomas Jefferson Agricultural Institute
Dennis Ray, Department of Plant Science, University of Arizona
Duane Johnson, President, Association for the Advancement of Industrial Crops
Carmela Bailey, United States Department of Agriculture, CSREES



Francis Nakayama



Yosef Mizrahi