October 2011

News from UC Davis Postharvest Technology Center

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Director’s Update

The demand for information related to Postharvest Technology of horticultural crops remains strong, evidenced by high demand for our publications and educational programs. The Postharvest Technology Center is taking its “show” on the road this fall.

In early December we will team up with the Georgia Tech Supply Chain & Logistics Institute to offer a new series of Cold Chain Management courses. Three members of our PTC team will offer a course “Strategies for Successful Postharvest Handling of Fresh Produce” December 6-8 in Atlanta to kick of this new series. (For more information click here.)

And three members of our team just returned from Bosnia and Herzegovina where we presented a 5-day Postharvest Technology of Horticultural Crops short course. The course was supported by eleven USAID projects as well as the governments of Sweden and the Czech Republic and attended by participants from 11 countries in the region. By all accounts, the workshop was a huge success.

--Elizabeth Mitcham

Postharvest Workshops @ UC Davis
Fruit Ripening & Ethylene Management Workshop 2012
We are pleased to announce the opening of registration for the March 27-28, 2012 Fruit Ripening & Ethylene Management Workshop! Organized by Dr. Carlos Crisosto, this two day workshop will cover topics such as ripening facilities and equipment, fruit development, maturity and quality relationships, retail temperature storage conditions, retail displays and handling, tools to control ripening and senescence, and physiological disorders and other losses. This workshop is an excellent value at $750 which includes two days of lectures and labs, instructional materials, small group discussion, lunches, coffee breaks, and an evening networking reception. Click here to link to our online enrollment form.

Additional postharvest technology educational opportunities will be available in 2012:

- **June 18-22, 2012.** Postharvest Technology Short Course, coordinated by Dr. Beth Mitcham
- **June 25-29, 2012.** Postharvest Technology Short Course optional Field Tour
- **September 18-20, 2012.** Fresh-cut Products: Maintaining Quality & Safety Workshop, coordinated by Dr. Marita Cantwell

We hope you’ll mark your calendars now for these upcoming workshops, and plan to attend.

News from the Center

Registration Open for First Course in New Cold Chain Management Series in Collaboration with Georgia Tech
The UC Davis Postharvest Technology Center is excited to partner with Georgia Tech Supply Chain & Logistics Institute in offering a new series of Cold Chain Management courses offered in conjunction with the Georgia Tech Integrated Food Chain Center, and Sterling Solutions. This series will assist you and your organization in developing solutions and practices to continuously improve your organization’s Cold Chains. The Georgia Tech **Cold Chain Management Series** is comprised of four courses to help guide you through the Cold Chain Management process – from postharvest to auditing to integration, while taking into consideration current government regulations. The first course in the series, **Strategies for Successful Postharvest Management of Fresh Produce**, will be offered December 6-8, 2011 in Atlanta, Georgia. To register or learn more about this new series, visit: [http://www.pe.gatech.edu/scl-com](http://www.pe.gatech.edu/scl-com).

ANR Grant Received
The Postharvest Technology Center was awarded a small grant from the University of California’s Division of Agriculture and Natural Resources (ANR) to develop a new short course focusing specifically on California’s agricultural community's postharvest informational needs. Coordinated by Carlos Crisosto, the course will be shorter than the two-week Postharvest Technology Short Course and consequently more easily managed by busy California produce industry professionals. With an anticipated Fall 2012 first offering, the course will be titled "Emerging Postharvest Technologies
for California Agriculture” and will focus on the most current and useful information for produce quality and food safety.

Central Valley Postharvest Newsletter
The 3rd issue of Volume 20 of the Central Valley Postharvest Newsletter, edited by Carlos Crisosto, is now available: http://ucce.ucdavis.edu/files/datastore/234-2120.pdf. Link here to see all 20 volumes.

Opportunity for Feedback on Proposed Rule
The USDA APHIS is seeking feedback on their October 25, 2011 Proposed Rule “Importation of Mangoes from Australia”. The rule will amend the regulations concerning allowing the importation of fresh mangoes, requiring that they would have to be produce in accordance with a systems approach to ensure imported fruit was free of the fungus *Cytosphaera mangiferae*.

Featured Postharvest Publications

Fantastic Fall Discount!
It’s time again for our Fall Sale, that once a year event where we finally offer a 20% discount on ALL items in our stock. Now, through November 30th, whether you’re interested in Avocado Quality, Pears, Produce Quality Rating Scales & Color Charts, Fresh-cut Products, Stone Fruit, Pears, or the venerable Postharvest Technology of Horticultural Crops – it’s all on sale! For a complete listing of all our publications see: http://postharvest.ucdavis.edu/bookstore/. To order a copy of any of our titles for your library, please use our Order Form, and be sure to note “NOV20” to receive your discount.

Postharvest Specialists Activities

“The Packer 25” Honors Dr. Roberta Cook in 2011
Each year The Packer features 25 individuals who are the standard-bearers for leadership in the produce industry. This year Dr. Roberta Cook, a cooperative extension marketing economist, was selected for this prestigious honor. She was selected based upon her contributions to agribusiness, educational outreach efforts, and respected research publications on a range of diverse topics. Beth Mitcham, Director of the Postharvest Technology Center, said, “Roberta has an amazing grasp of California, and the world’s, produce economics, and is talented at conveying this complicated information in a concise and engaging way. We feel very fortunate to have her as a part of our Center’s team.”

Roberta Cook Focuses on Produce Economics and Marketing at New York Produce Show
Dr. Roberta Cook will be speaking about the “Global Economic Downturn and Fresh Produce Marketing Trends” at the New York Produce Show, November 7-9, 2011.
Balkans Regional Postharvest Technology Short Course Held

More than a year ago, several agencies from the Balkans Region invited the specialists of the UC Davis Postharvest Technology Center to come and present a condensed version of our renowned Postharvest Technology Short Course. Nearly 100 participants from eleven countries attended the October 24-28 course, which included three-and-a-half days of lectures, and 1-1/2 days of field tour. Drs. Beth Mitcham, Marita Cantwell, Mary Lu Arpaia, and Michael Reid served as instructors, along with Zdenec Svec from the Czech Republic who presented a talk focusing on regional marketing and trade issues. Simultaneous translation was offered in Bosnian and Russian.

Specialty Crops Stakeholder Meeting at Fresh Summit in Atlanta, October 16

Drs. Beth Mitcham, Carlos Crisosto, Christine Bruhn, and Marita Cantwell attended PMAs Fresh Summit Conference in Atlanta earlier this month and participated in a Specialty Crops Project stakeholder meeting along with colleagues from the University of Florida to discuss the latest research related to delivering more flavorful fruits and vegetables to consumers.

What’s New on Our Website

New Addition to Postharvest Publications Organized by Topic Library

This library currently contains more than 1,400 postharvest documents, organized by topic. It is searchable by title or author, and is one of the premiere sources of postharvest information.

- Effect of delayed storage and continuous ethylene exposure on flesh reddening of ‘Royal Diamond’ plums.

Postharvest Calendar: Upcoming Conferences, Courses and Workshops

- December 3-6, 2011. International Conference on Quality Management in Supply Chains of Ornamentals. Radisson Hotel, Bangkok, Thailand. Contact Sirichai Kanlayanarat (66)2-470-7720 or qmsco@kmutt.ac.th.
- December 3-6, 2011. Southeast Asia Symposium on Quality Management in Postharvest Systems (SEAsia2011). Bangkok, Thailand. Contact Sirichai Kanlayanarat (66)2-470-7720 or seasia@kmutt.ac.th
- December 3-6, 2011. Asia Pacific Symposium on Postharvest Quality Management of Root and Tuber Crops. Radisson Hotel, Bangkok, Thailand. Contact Sirichai Kanlayanarat (66)2-470-7720 or sirichai.kan@kmutt.ac.th
- December 6-8, 2011. Strategies for Successful Postharvest Handling of Fresh-Produce. Georgia Tech Cold Chain Management Series. Atlanta, Georgia.
- February 6-8, 2012. 5th European Short Course on Quality & Safety of Fresh-cut Produce. Messe Berlin Exhibition Grounds, Berlin, Germany.
Q. Dr. Cantwell: I found on the Internet an article written by you in which you recommend storing kiwanos at 13-15°C. I am an exporter of exotic fruits and am exporting kiwanos to Europe. My client says that the shelf life for my kiwanos is short, 2-3 weeks. They are storing the fruit at 10-12°C. I would sincerely appreciate your comments about this problem. Thanks in advance and best regards.

A. In our 1996 research summary we found that 10-12°C was too low if the fruit was stored for 2 months. These fruit had severe decay, most probably a result of chilling injury at those temperatures. The fruit was stored at 15°C successfully for 5 months. Our study was very limited but it was consistent with other reports in which warmer temperatures were used for kiwano. I have had the opportunity to observe the fruit at some specialty produce wholesalers and the main problems appear to be maturity (too immature at harvest; fruit should be yellow-orange for good composition and flavor) and damage to the spines which leads to early decay. They typically handle them at moderate temperatures (15-20°C). I hope this is helpful.

–Marita Cantwell
Q. I am doing an experiment where I am trying to duplicate a refrigerator crisper with fruits and veggies and an ethylene absorber. I am trying to find a chart or related info that will tell me what concentration of ethylene I might find in a crisper that has several pieces of fruit/ veggies in it. I understand different items will produce at different rates and other variables can affect this. Ultimately, I have to buy a tank of ethylene and I’m worried that 10ppm will be too high. I’m studying efficacy of an ethylene absorber in a crisper and want to duplicate a natural concentration. I’m having a really hard time finding information on the subject and was hoping you might be able to help. It sounds like fruit will respond to 1ppm or lower, but I’d expect the concentration is likely higher after several days.

I enjoyed your website and found a lot of good info there. It’s got to be the best website out there! (C.S.)

A. As you indicated, the ethylene level in the home refrigerator will depend on the quantity of ethylene-producing fruits (apples, pears, peaches, etc.) that are kept in the crisper. Here is a link to a paper in which we report a range of 0.02 to 1.58 ppm ethylene in home refrigerators (33 samples): [http://ucce.ucdavis.edu/files/datastore/234-285.pdf](http://ucce.ucdavis.edu/files/datastore/234-285.pdf) Good luck with your project.

--Adel Kader