



August 2011

News from UC Davis Postharvest Technology Center

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Director's Update

The not so lazy days of August



If you ever wondered whether climate change was real and would have a significant impact on our future, an unprecedented earthquake and hurricane in one week in the Northeast United States might convince you. Hopefully all of you in the NE survived with little more than some rattled nerves.

Our staff at the Postharvest Technology Center are at it again!! Center Manager, Mary Reed, was recognized by the Chancellor of UC Davis with a Citation of Excellence in appreciation for her excellent efforts on behalf of the Postharvest Technology Center. Congratulations Mary!!

Registrations are pouring in for the 16th Annual Fresh Cut Products: Maintaining Quality and Safety Workshop to be held September 13-15, 2011. Register now to guarantee a spot for this informative workshop!

Postharvest Technology Short Course Participant Survey Results In

100% of the respondents from our 2009 and 2010 Postharvest Technology Short Course participant survey indicated that attending the course had benefitted them professionally, and 10% reported that their company had saved between \$50K-\$250K annually as a result of the information they learned.

--[Elizabeth Mitcham](#)

Website Highlights

[Enroll in a Postharvest Course](#)

[Produce Fact Sheets: Maintaining Postharvest Quality](#)

[Donate to Support Free Postharvest Information](#)

Postharvest Workshops @ UC Davis



Don't miss out!

The UC Davis Postharvest Technology Center's Fresh-cut Products: Maintaining Quality & Safety Workshop is offered **September 13-15, 2011**; be sure to secure your seat soon!

Attendees at this 16th annual workshop will benefit from learning about new technology related to the production, processing, packaging, distribution and quality assurance of fresh-cut products. Participants from every level of the fresh-cut industry have gained working knowledge of established and new procedures for fresh-cut products through our topic-related sessions.

This year, more emphasis will be placed on the sensory evaluation of fresh-cut fruit and vegetable products, with sessions on the principles of sensory testing and practical sensory demonstrations. The workshop also features discussions on microbial food safety and the effects of temperature and modified atmospheres on fresh-cut fruit and vegetable quality.

The fresh and useful content of this workshop keeps people coming back! Come see what it's all about. For more information about this workshop for yourself or a coworker, or to register, please [click here](#) or call Penny Stockdale at 530-752-7672.

Hope to see you in September!

The Postharvest Technology Center Team

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News from the Center

GEM Avocado Promising New Avocado Variety

A Kearney Agricultural Research & Extension Center blog post titled "[There's a new avocado in town](#)" features an in-depth personal interview with Center member Dr. Mary Lu Arpaia, along with a video clip,. The GEM avocado is a great-granddaughter of the Hass avocado, with all the excellent characteristics of Hass avocados: creamy, nutty flesh, dark, pebbly skin when ripe. But it offers an advantage to growers due to its more consistent annual bearing pattern, an improvement over the alternate-bearing pattern of the Hass avocado trees.

Linda Harris Works with Almond Industry to get Food Safety Right

The Summer 2011 issue of [CA&ES Outlook](#) magazine from the College of Agricultural and Environmental Sciences at UC Davis includes an [interview with Dr. Linda Harris](#) (page 7) who since 2001 has worked closely with the almond industry to develop the scientific data needed to evaluate microbial risks in this crop.

Working to Get Microbial Foodborne Illness as Close to Zero as Possible

Drs. Trevor Suslow and Linda Harris were also interviewed for the Summer 2011 issue of CA&ES Outlook in an article "[UC Davis delivers the science to improve food safety.](#)" (page 6) Suslow and his team often travel around the state of California to inform growers about the latest research, and when a contamination event is reported they travel on site

as quickly as possible to capture data. The data is then used to fill in the gaps in information collected in controlled research trials targeted at reducing the risks to public health. Harris, Suslow, and other UC Davis food safety experts work collaboratively with researchers, industry, and regulators in the wide variety of disciplines that are needed to investigate microbial food safety risks in the food supply chain.

Starfruit Produce Fact Sheet Translated into Ukranian

One visitor to our website thought that our Produce Facts: Recommendations for Maintaining Postharvest Quality of Starfruit (Carambola) would be of interest to her Ukrainian blog readers, and requested permission to translate it. You can view the translation at this [blog link](#).

Crisosto featured in ANR “Making a Difference” Story

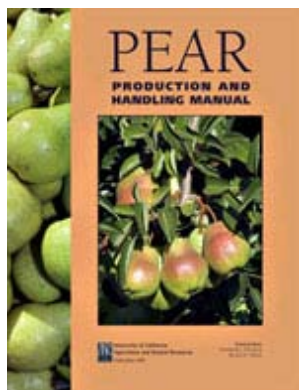
In an article titled “[Key to delicious fruit is keeping it out of the killing zone](#),” Dr. Carlos Crisosto asserted that the key to great-tasting peach, nectarine and plum fruit with a pleasing texture is in the way it is handled after harvest. By delaying cooling, and adopting new stone fruit “pre-conditioning” practices, growers have been able to realize a \$1 to \$4 per box premium from grocery companies who are realizing that consumers appreciate the improvement in quality.

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Featured Postharvest Publication

Special 25% Discount Offer

The “Pear Production and Handling Manual” is a 215 page publication edited by E.J. Mitcham and R. Elkins and written by numerous pear experts that provides basic information on the growth and development of pear fruit, as well as practical considerations on pear culture. It was written with California Bartlett pear production in mind, but will be useful for worldwide growers of all pear varieties.



The book also includes information on orchard and tree management, propagation and rootstock selection, training, pruning, orchard floor management, irrigation, fertilization, irrigation systems, frost protection, nutrition, pest management, harvesting, and extensive information on postharvest storage and handling.

The regular price is \$25.00/copy, but for a limited time we are offering it for \$18.75/copy (a 25% discount). This offer is good through 9/15/11. Please use our [order form](#) to place your order for this informative booklet, and be sure to note “25% Pear Discount.”

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What’s New on Our Website

Produce Fact Images Uploaded

We now have 652 **high quality images** in our online libraries associated with our Produce Fact Sheets. To view them, go to the Produce Fact Sheet for the commodity in which you are interested, and click on the “Photo Album” icon near the top right of the page. A picture continues to be “worth a thousand words”, and we think you’ll find our albums useful. Whether you’d like to see what [Lasodiopodia rot in watermelon](#), or [enzymatic softening of apricot](#) (or anything in between) looks like, we likely have a photo of it.

Brief Book Review

“Postharvest Biology and Technology of Tropical and Subtropical Fruits” is the title of a new book recently reviewed by Dr. Adel Kader. Link below to read the entire review of this new four-volume book series:

<http://postharvest.ucdavis.edu/libraries/bookreviews/?uid=26&ds=277>

Most Useful Postharvest Websites

This recently updated and categorized resource is now available in both [web page](#) and [printable PDF](#) format. It is a comprehensive collection of online resources assembled by Dr. Adel Kader.

New Additions 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.

Economics

- [Costs and benefits of changes in horticultural practices](#), Kitinoja, Lisa. 32 pgs. (2005)
- [Sample Costs to Hull and Dry Walnuts – 2009](#). Klonsky, Karen, James Thompson, Joseph Grant, Janine Hasey, Rachel Elkins. UC Cooperative Extension. 8 pgs. (2009)

Food Safety

- [Nuts: Safe methods for consumers to handle, store and enjoy](#), Bruhn, Christine, Linda J. Harris, Maria Giovanni, and Diane Metz. University of California Division of Agriculture and Natural Resources Publication 8406. 11 pgs. (2010)
- [Olives: Safe methods for home pickling](#), Revised by Yada, Sylvia, and Linda J. Harris, working from the original publication by George York, and Reese Vaughn. University of California Division of Agriculture and Natural Resources Publication 8267. 26 pgs. (2007)
- [Strawberries: Safe methods to store, preserve, and enjoy](#), Harris, Linda J., and Elizabeth Mitcham. University of California Division of Agriculture and Natural Resources Publication 8256. 15 pgs. (2007)
- [Nuts: Safe methods for home gardeners to harvest, store and enjoy](#), Perry, Ed, Linda J. Harris, Maria Giovanni, Diane Metz, and Christine Bruhn. University of California Division of Agriculture and Natural Resources Publication 8407. 14 pgs. (2010)
- [Apples: Safe methods to store, preserve, and enjoy](#), Harris, Linda J., Sylvia Yada, and Elizabeth Mitcham. University of California Division of Agriculture and Natural Resources Publication 8229. 19 pgs. (2007)
- [Key points of control and management of microbial food safety: Information for growers, packers, and handlers of fresh-consumed horticultural products](#), Suslow, Trevor V. University of California Division of Agriculture and Natural Resources Publication 8102. 7 pgs. (2003)

Home Storage

- [Harvesting and storing your home orchard’s nut crop: Almonds, Walnuts, Pecans, Pistachios and Chestnuts](#), Perry, Ed, and G. Steven Sibbett. University of California Division of Agriculture and Natural Resources Publication 8005. 9 pgs. (1998)

Postharvest Pathology

- [Integration of continuous biofumigation with *Muscodor albus* with pre-cooling fumigation with ozone or sulfur dioxide to control postharvest gray mold of table grapes](#), Mlikota Grabler, Frana, Julien Mercier, J.I. Jiménez, J.L. Smilanick. Postharvest Biology and Technology 55:78-84 (2010)
- [Ultralow oxygen treatment for postharvest control of *Nasonovia ribisnigri* \(Homoptera: Aphididae\) on iceberg lettuce](#), Liu, Yong-Biao, J. Econ. Entomol 98:1899-1904 (2005)

Postharvest Entomology

- [Ultralow oxygen treatment for postharvest control of western flower thrips, *Frankliniella occidentalis* \(Thysanoptera: Thripidae\), on iceberg lettuce. I. Effects of temperature, time, and oxygen level on insect](#)

- [mortality and lettuce quality](#), Liu, Yong-Biao, *Postharvest Biology and Technology* 49:129-134 (2008)
- [Ultralow oxygen treatment for postharvest control of western flower thrips, *Frankliniella occidentalis* \(Thysanoptera: Thripidae\), on iceberg lettuce. II. Effects of pre-treatment storage on lettuce quality](#), Liu, Yong-Biao. *Postharvest Biology and Technology* 49:135-139 (2008)
- [Ultralow oxygen treatment for control of *Planococcus ficus* \(Hemiptera: Pseudococcidae\) on grape benchgrafts](#), Liu, Yong-Biao, Larry J. Bettiga, and Kent M. Daane. *J. Econ. Entomol.* 193:272-276 (2010)
- [Ultralow oxygen treatment for control of *Latrodectus Hesperus* \(Araneae: Theridiidae\) on harvested table grapes](#), Liu, Yong-Biao, Kent M. Daane, J. Steve Tebbets, and Larry J. Bettiga. *J. Econ. Entomol.* 101:1515-1518 (2008)

Processing

- [Onion cells after high pressure and thermal processing: Comparison of membrane integrity changes using different analytical methods and impact on tissue texture](#), Gonzalez, Maria E., Gordon E. Anthon, and Diane M. Barrett. *Journal of Food Science* 75:426-432 (2010)

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Postharvest Positions

Fresh Foods Solutions Marketing Manager Position

HirePointe Management Group is recruiting for a candidate who will lead a team responsible for assessing opportunities to deliver innovative solutions to the fresh produce market, with a focus in the areas of food safety and shelf life extension. The position will lead the identification of market unmet needs, develop project business cases, and manage the commercial aspects of market development efforts. Metrics will include NPV of the opportunity pipeline and achievements of milestones toward targets. A Bachelor degree or better in a technical discipline is required, as well as a minimum of eight years of experience in new business development/marketing/sales/product management. Applicant should have strong communication and interpersonal skills, an entrepreneurial spirit and attitude, and be a highly motivated, self-starter individual with the ability to work remotely with minimal supervision. The position requires approximately 50% travel, and the job location is in New Jersey. For more information contact [Jane Beatty](#).

QA Director for Fresh-cut Fruit & Vegetable Processing Operation

Vaughan Foods is actively seeking a QA director in their Oklahoma City facility. The QA Director would be responsible for their fresh-cut fruit and vegetable processing operation. Several years' management or supervisor experience in the fresh-cut industry is preferred. Vaughan Foods produces about 1.8 MM pounds weekly, and has a staff of 13 in their fresh-cut QA department. For more information contact [Mark Vaughan](#).

Field Food Safety Position

Specialty Ag in Madera, California is looking for a field food safety representative. They grow fresh figs, persimmons, pomegranates and other crops. This position would write GAP plans and supervise operations for potential problems. Position would require knowledge of horticultural practices, food safety practices, and an ability to speak Spanish. For more information contact Kevin Herman at 559-871-7220 or 559-661-8253.

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Postharvest Calendar: Upcoming Conferences, Courses and Workshops

- September 10-12, 2011. [International Symposium on Mycotoxins in Nuts and Dried Fruits](#). Damghan, Iran.
- September 13-15, 2011. [Fresh-cut Products: Maintaining Quality & Safety](#). 16th Annual. UC Davis campus.
- September 18-22, 2011. [Australasian Postharvest Horticulture Conference](#). Lome, Victoria, Australia.

- October 14-17, 2011. **Fresh Summit International Convention & Expo**, Atlanta, GA, USA; Produce Marketing Association.
- 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 gmsco@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.
- March 27-29, 2012. **18th Annual Fruit Ripening & Ethylene Management Workshop**. UC Davis campus.
- June 18-29, 2012. **34th Annual Postharvest Technology Short Course**. UC Davis Campus, plus optional field tour.
- June 25-29, 2012. **7th International Postharvest Symposium**. Kuala Lumpur, Malaysia.
- September 18-20, 2012. **17th Annual Fresh-cut Products: Maintaining Quality & Safety Workshop**. UC Davis campus.
- October 16-19, 2012. **X International Symposium on Postharvest Quality of Ornamental Plants**. Porto de Galinhas, Pernambuco, Brazil. Contact Prof. Fernando Luiz Finger (55) 3138991128 or ffinger@ufv.br.

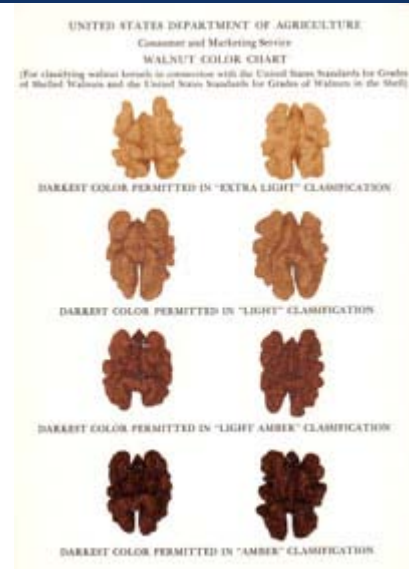
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Ask the Produce Docs

Q. I would like to know if you have available for sale the walnut color chart. (A.C.C.)

A. This useful chart was developed by the United States Department of Agricultural Marketing Service (USDA – AMS), and you may find information about this chart, and how to order a copy, on page 8 of this linked [PDF document](#). It may also be viewed in our website's online library:

<http://ucanr.org/sites/postharvest/PFfruits/DriedFruitsNutsPhotos/?repository=29308&a=83309>



Q. I have seen a video regarding the proper loading and use of a reefer trailer for hauling various produce, and UC Davis was listed on the credits. I am considering using a reefer trailer with my semi truck and am trying to learn as much as I can regarding this subject. Do you have any publications, books, videos regarding this subject - or can you recommend some appropriate sources? (B.B.)

A. We have quite a few resources that you might find useful, please take a look at the following items:

A booklet "Refrigerated Trailer Transport of Perishable Produce" (<http://postharvest.ucdavis.edu/files/93554.pdf>) is available for purchase.

A video entitled "Loading Makes a Difference" (<http://postharvest.ucdavis.edu/libraries/video/#transportation>) can be viewed for free at this link.

Also, we have a number of **free articles about transportation of produce** that may be downloaded from this link: <http://postharvest.ucdavis.edu/libraries/publications/?ds=234&reportnumber=204&catcol=1809&categorysearch=Transportation>.

Best wishes on your endeavors!

*If you have a perplexing postharvest question that you'd like answered, please send it to postharvest@ucdavis.edu.
Link to a data store of all our previous "Ask the Produce Docs" questions and answers,
or link to archived copies of our [monthly E-Newsletter](#) as PDF documents.
Link to our [Postharvest Yellow Pages](#), or email us with [additions or corrections](#).*

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Editorial Review: Beth Mitcham, Linda Harris

Writing: Mary Reed, Beth Mitcham

Layout & Design: Mary Reed

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