

May 2009 News from UC Davis

POSTHARVEST TECHNOLOGY

Research & Information Center

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News from the Center



Photo: Participants on the 2008 Short Course Field Tour.

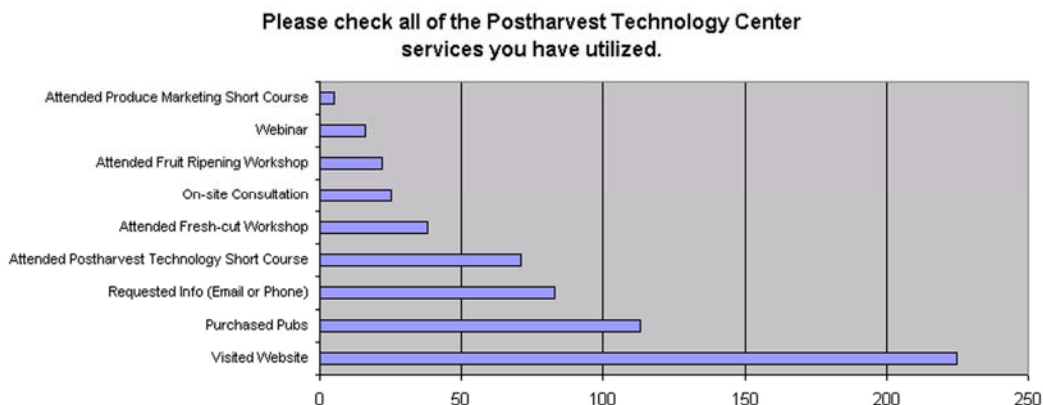
Click on the link to learn more or to register for the [2009 Postharvest Short Course](#).

Last Chance to Register for the 31st Postharvest Technology Short Course
 Registrations continue to arrive for our annual [Postharvest Technology Short Course](#) and optional field tour, scheduled for June 15-26, 2009. This annual short course is held to assist and update produce industry professionals, research and extension workers, and quality assurance personnel regarding current advances in postharvest technology of horticultural crops. This is an intensive one-week classroom and laboratory study of current technologies and best practices associated with the postharvest handling of fresh fruits, nuts, vegetables and ornamentals in California. The optional second week field tour allows participants to see theory put into practice. For more information and registration, visit <http://postharvest.ucdavis.edu/announce/shortcourse.shtml>.

Short Course lectures, given by University of California postharvest specialists, will include storage systems, food safety, temperature management, ripening, packaging, transport and commodity-specific sessions. Participants will take part in hands-on breakout demonstrations of cooling methods, quality and sensory evaluations, postharvest disease control and water use and sanitation.

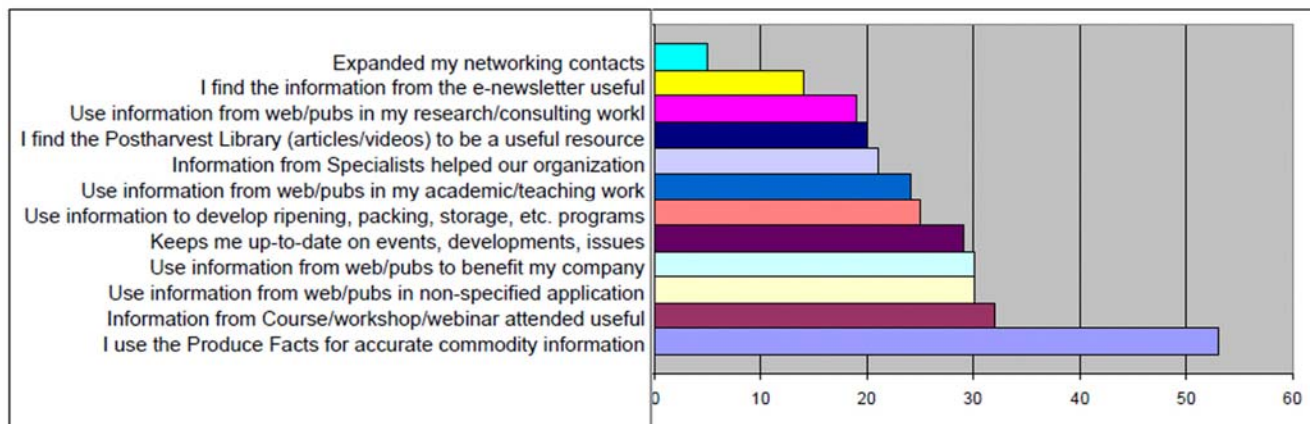
Thank You! Postharvest Impact Survey Receives Robust Feedback

In just 13 days we received more than 240 responses (out of approximately 2500 emails sent) to our request for feedback via our Postharvest Impact Survey. We have quickly tabulated the information from the first two questions on the survey.



The first graph displays the variety of UCD Postharvest Technology Research & Information Center services utilized by the respondents, and the second provides examples of how the Postharvest Center has benefited the respondents. We appreciate each individual response, and will utilize this information to demonstrate to our administration the broad impact we have on the postharvest community. We continue to welcome feedback from this survey, found at <http://ucanr.org/postharvestsurvey>, and will continue to incorporate additional feedback into our reports.

Examples of how the Center has aided you professionally or benefited your company.



Fresh-cut Workshop at UC Davis

The 2009 Fresh-Cut Products: Maintaining Quality & Safety Workshop, as it has in previous years, will include the most current fresh-cut information and the industry’s most knowledgeable speakers. We continue to welcome registrations for the 14th annual offering of this workshop which is coordinated by Dr. Marita Cantwell. It is designed for individuals from the fresh and processed fruit and vegetable industries and food scientists, food engineers, quality assurance personnel and new product development staff.

April 2009 Central Valley Postharvest News

The April 2009 issue of Carlos Crisosto's Central Valley Postharvest News has been published. You can access this newsletter with the following link: http://www.uckac.edu/postharv/PDF%20files/CVPN_April09.pdf

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What’s New on our Website this Month

New Additions to our Postharvest Publications Organized by Topic Data Store

Our data store features over 900 documents, searchable by author, topic, or title. New titles this month include:

- [Evaluation of Food Additives as Alternative or Complementary Chemicals to Conventional Fungicides for the Control of Major Postharvest Diseases of Stone Fruit](#), by Lluís Palou, Joesph L. Smilanick, and Carlos H. Crisosto. *Journal of Food Protection* 72:1037-1046 (2009)
- [Transportation of Fresh Horticultural Produce](#), by Clément Vigneault, James Thompson, Stefanie Wu, K.P. Catherine Hui, and Denyse I. LeBlanc. Chapter 1 from *Postharvest Technologies for Horticultural Crops*. 2:1-24 (2009)
- [Designing Containers for Handling Fresh Horticultural Produce](#), by Clément Vigneault, James Thompson, and Stefanie Wu. Chapter 2 from *Postharvest Technologies for Horticultural Crops*. 2:25-47 (2009)
- [Feasibility of Simultaneous Rough Rice Drying and Disinfestations by Infrared Radiation Heading and Rice Milling Quality](#), by Z. Pan, Z., R. Khir, L.D. Godfrey, R. Lewis, J.F. Thompson, A. Salim. *Journal of Food Engineering* 84:469-479 (2008)
- [Relationship Between Rice Sample Milling Conditions and Milling Quality](#), by Z. Pan, K.S.P. Amaratunga, J.R. Thompson. *Food Process and Engineering Institute, division of the American Society of Agricultural and Biological Engineers* 50:1307-1313 (2007)
- [Effect of Weather and Rice Moisture at Harvest on Milling Quality of California Medium-Grain Rice](#), by J.F. Thompson, R.G. Mutters. *Food Process and Engineering Institute, division of the American Society of Agricultural and Biological Engineers* 49:235-440 (2006)

- [Effect of Cooling Methods and Milling Procedures on the Appraisal of Rice Milling Quality](#), by Z. Pan, J.F. Thompson, K.S.P. Amaratunga, T. Anderson, X. Zheng. Food Process and Engineering Institute, division of the American Society of Agricultural and Biological Engineers 48:1865-1871 (2005)
- [Effects of Drain and Harvest Dates on Rice Sensory and Physiochemical Properties](#), by E.T. Champagne, K.L. Bett-Garber, J. Thompson, R. Mutters, C.C. Grimm, A.M. McClung. Cereal Chem. 82:369-374 (2005)
- [Analysis of Variability in Rice Milling Appraisals](#), by J.F. Thompson, J. Knutson, B. Jenkins. Applied Engineering in Agriculture 6: 194-198 (1990)

New Produce Facts in French

This month we thank Caroline Lafond and Hala Chahine for translating the following Produce Facts into French:

- [Asparagus plumosus](#)
- [Éillet du poète](#)
- [Gaultheria shallon](#)
- [Chrysanthème](#)

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Postharvest Specialists' Activities

Crisosto Speaks at 2009 California Fig Institute

Dr. Carlos Crisosto was a guest speaker at the Annual Membership and Research Meeting of the 2009 California Fig Institute, held in Madera, California. The titles of his three talks were: "Use of Preharvest Ethephon Applications to Reduce Breba Crop Load," "Evaluating the Effect of Chilling Units Accumulation on Fig Cultivar Performance," and "Postharvest Performance Evaluations of Different Fig Varieties/Selection at Different Maturity Stages for Fresh Fruit Consumption."

Keep Bacteria Off the Menu!

Drs. Chris Bruhn and Jim Gorny were featured experts in a Sacramento Bee article dated May 6th. Summer food safety was the subject of the article and Chris and Jim addressed a variety of topics that often get overlooked in the enjoyment of summer's many food delights. To read the article in its entirety, see:

<http://www.sacbee.com/livinghere/story/1835990.html>

Food Safety Topic of Harris and Suslow Articles

Two recently published trade press articles by postharvest specialists addressed produce food safety:

- [*Building A Better Understanding Of Salmonella In Pistachios*](#) by Dr. Linda Harris in The Perishable Pundit May 1, 2009 Issue
<http://www.perishablepundit.com/index.php?date=5/01/09>
- [*Produce Traceability and Trace-back: From Seed to Shelf and Beyond*](#) (COVER STORY) by Trevor Suslow in Food Safety Magazine April/May 2009 Issue
<http://www.foodsafetymagazine.com/article.asp?id=2908&sub=sub1>

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Postharvest Workshops @ UC Davis

2009 Postharvest Workshops

We are now accepting registrations for the following UC Davis Postharvest Technology Research & Information Center Courses:

- [Postharvest Technology Short Course](#). June 15-26, 2009. UC Davis campus.
- [Fresh-cut Products: Maintaining Quality & Safety](#). September 22-24, 2009. UC Davis campus.

2010 Postharvest Opportunities

- *March:* Fresh Produce Marketing Strategies Short Course
- *April:* Fruit Ripening & Ethylene Management Workshop

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Postharvest Positions

Conagra Foods is searching for a seasonal Quality Technician I, a college degree is preferred. Position performs quality assurance checks throughout all phases through all required analytical or microbial testing actions; monitoring component temperatures, and recording information on required forms. Performs calibration and preventative maintenance as needed. Assists in training plant operators in testing procedures. Basic microbial knowledge helpful. Contact Beatrice Pardo for more information (559-934-3347 or beatrice.pardo@conagrafoods.com).

Kincannon & Reed has been retained by **Harris Moran** to recruit a Head Breeder Team Manager to develop strategies and breeding directions for the Solanaceae species. The position would be located at the company's Davis, Calif. Breeding operations, and would directly supervise 5 to 10 breeders, and indirectly oversee the activities of species breeding teams with 35-50 people. Candidate must have a degree in Agronomy or Biology with a specialization in plant genetics or breeding (a PhD is desirable). For additional qualification and position information contact Eiji Hosomi of Kincannon & Reed at ehosomi@krsearch.net.

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Featured Postharvest Publication

Discount Offered on Pear Manual

This month we're offering a 20% discount on our "[Pear Production and Handling Manual](#)." This excellent publication was written by Beth Mitcham, Postharvest Pomologist, and Rachel Elkins, a Pomology Farm Advisor and Master Gardener Advisor. It covers 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. Please use our [Order Form](#), and be sure to note "*May Discount*" on the order form to receive your discount.

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Postharvest Calendar: Upcoming Conferences, Courses and Workshops

- June 1-2, 2009. [Green Acres Blue Skies II](#). UC Davis campus.
- June 8-11, 2009. [7th International Peach Symposium](#). Lleida, Spain.
- June 15-26, 2009. [31st Annual Postharvest Technology Short Course](#). UC Davis campus.
- June 21-25, 2009. [The 8th International Symposium on the Plant Hormone Ethylene](#) at Cornell University in Ithaca, New York.
- July 20-23, 2009. [1st International Conference on Postharvest & Quality Management of Horticultural Products of Interest in the Tropics](#). San José, Costa Rica.
- September 7-10, 2009. [Third European Short Course on Quality and Innovation of the Fresh Cut Produce](#), Almeria, Spain.
- September 20-24, 2009. [11th Symposium on Plant Bioregulators in Fruit Production](#). Bologna, Italy.
- September 22-24, 2009. [Fresh-cut Products: Maintaining Quality & Safety](#). UC Davis campus.
- September 29-October 3, 2009. [Fourth International Symposium on Fig](#). Meknès, Morocco.
- November 15-19, 2009. [Australasian Postharvest and Managing Quality in Chains Conference: "Postharvest Pacifica-Pathways to Quality"](#) Napier War Memorial Conference Centre, Napier, New Zealand.
- August 22-27, 2010. [28th International Horticultural Congress](#). Lisbon, Portugal.

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Ask the Produce Docs

Q. I'm looking for the new technologies for ripening and handling papaya. Do you have information about it? Which is the best or the newest process to ripen papayas with ethylene? Do you have bibliography for this important tropical crop? Where can I get postharvest disease control information for this crop? Thanks. (F.A.R.)

A. Since papayas do not contain much starch at the mature-green stage like bananas and mangos do, papayas do not increase in sugars content and associated sweetness after harvest. Exposure of mature-green papayas to 100 ppm ethylene for 1-2 days at 20°C and 85-95% relative humidity will accelerate loss of chlorophyll (green color) in the skin and softening of the flesh, but without increased sweetness. Thus, I do not recommend harvesting papayas at the mature-green to 25% ripe (yellow) stages and treating them with ethylene to degreen them. For better flavor and consumer satisfaction, I recommend that papayas be harvested at the 50% to 75% ripe (yellow) stage with at least 12% soluble solids content (as measured by a refractometer). In this case, there is no need to use ethylene treatment and postharvest life of these partially-ripe papayas can be extended by cooling them to 13°C soon after harvesting and transporting them at 13°C until they reach the retail display, where they can be kept at ambient store temperatures (20-25°C).

Please see our Produce Facts: Recommendations for Maintaining Postharvest Quality of Papaya (<http://postharvest.ucdavis.edu/Produce/ProduceFacts/Fruit/papaya.shtml>).

Additionally, you will find some additional helpful information, including bibliography resources, by typing “papaya” into the search field that appears at the bottom of each page of our web site:

<http://postharvest.ucdavis.edu> - Adel A. Kader, Professor Emeritus of Postharvest Physiology

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