Postharvest news you can always use.

DIRECTOR’S NOTE

California residents began the new year with a reminder that climate change is not only increasing the occurrence of severe drought, but also the chances of extreme, though infrequent, floods. The severe storm that gripped our state on New Year’s Eve was a clear indicator that dry and wet weather extremes are on the rise. We are very thankful for water coming our way, as later in the year we will rely on snowpack melting from the Sierras to meet our water demand. This is important even for those who live far away because California leads the nation as the largest producer of agricultural products. (But I do wish that the precipitation would be more evenly distributed throughout the entire rainy season!)

My new year started off with me connecting a backup refrigerator battery, so that on the following day I could grill a bunch of crisp bok choy, produced in beautiful Winters, California. If you have attended our workshops, you understand why I was adamant about keeping my bok choy cold. No amount of garlic, salt or pepper can compensate for the loss of crunchiness in this
delicious cruciferous vegetable. If you would like to learn more about the latest techniques and systems to effectively ripen and store fruits and vegetables after harvest, I invite you to register for our fast-approaching **Fruit Ripening & Ethylene Management Hybrid Workshop**, March 7-8, 2023.

Throughout 2023, the Postharvest Technology Center will be introducing new approaches to our core workshops to better fulfill our mission of helping you reduce postharvest losses and improve the quality, safety, and marketability of fresh agricultural products. One new approach is to develop educational videos, which will allow us to visually convey real-world insights regarding technological postharvest innovations. Stay tuned for more details on that!

As I’m sure you can tell, I am passionate about the science behind effective produce handling. So, I am excited to share that this year, we are resuming the UC Davis Postharvest Technology of Horticultural Crops Short Course Scholarship Program. The scholarship gives one individual from a developing country the opportunity to participate in person in our 2023 Short Course and Field Tour. The scholarship recipient will learn about postharvest handling and horticultural crops from some of the foremost experts in the field. This year’s course and tour will take place June 19-30, 2023. **Apply by January 25, 2023!**

Happy New Year!

Irwin
It is with great sadness that we share the loss of our respected friend and colleague, Devon Zagory, in November 2022. Devon leaves behind his many relatives, friends and colleagues who will remember him as funny, a good storyteller, a great dad and grandad, and a loving husband.

Devon worked under the tutelage of the late Dr. Adel Kader, the founding director of the Postharvest Technology Center, and was known for his work in the food production industry, fruit and vegetable packaging, posharvest handling, food loss reduction and food safety. He established Devon Zagory & Associates LLC in 1989, through which he provided services to the fresh produce industry in food safety, quality assurance, packaging, MA/CA and in international development programs, and began serving as the Director of Quality and Safety at Salad Cosmo in 2009.

Colleagues say Devon was “one of the world’s greatest technical and scientific minds in his area of expertise,” “one of the most knowledgeable individuals in the food safety arena,” “a trusted leader in the food industry with excellent scientific knowledge, especially for food safety requirements,” and “someone with positive energy, sound scientific methodology, and professionalism.”

Devon's family will hold a celebration of life in February/March at a location yet to be determined.

He will be greatly missed by so many.
2023 FRUIT RIPENING & ETHYLENE MANAGEMENT Hybrid Workshop

March 7-8, 2023

- **Intensive Instruction**
  Learn what it takes to deliver delicious fruits and fruit-vegetables to consumers and increase profits by reducing losses at the receiving end.

- **Demonstrations & Q&A Sessions**
  Our workshop is jam-packed with lectures, demonstrations, Q&A sessions and our popular, not-to-be-missed Fruit Ripening Jeopardy game!

- **Networking Opportunities**
  Meet and mingle with fellow fruit-ripening professionals. Rub shoulders with instructors. Expand your professional network through invaluable face-to-face interactions.

CLICK HERE TO REGISTER
2023 POSTHARVEST TECHNOLOGY OF HORTICULTURAL CROPS
Short Course

CLASSROOM LEARNING
June 19-23

FACILITY TOURS
June 26-30

Intensive Instruction
Taught by some of the world’s foremost experts in postharvest biology from industry and academia, optimized for both in-person and virtual participation.

California Facility Tours
Put your new knowledge into practice during a week’s worth of in-person tours, led by experts at well-known postharvest facilities.

Networking Opportunities
Meet and mingle with fellow postharvest professionals. Rub shoulders with instructors. Expand your professional network through invaluable face-to-face interactions.

Registrations are now open!
ADDITIONAL POSTHARVEST EDUCATION OPPORTUNITIES

January 16-19, 2023
NCW Tree Fruit Days, Wenatchee, Washington

February 9-10, 2023
Alabama Fruit & Vegetable Growers Association Annual Conference and Trade Show, Gulf Shores, Alabama

March 13-17, 2023
2023 Florida Postharvest Horticulture Tour, Gainesville, Florida

May 7-12, 2023
ISHS International Symposium on Almond and Pistachio, UC Davis

May 14-17, 2023
Postharvest Unlimited Conference & Postharvest Ornamentals Symposium, Wageningen University, The Netherlands

November 11-15, 2024
Postharvest 2024, Rotorua, New Zealand

And the winner of our Produce Handling Education Survey prize drawing is...

NAGIN LALLU

Congratulations to Nagin Lallu, the winner of our Produce Handling Education Survey prize drawing! Nagin will receive a copy of our Postharvest Technology of Horticultural Crops textbook, a $65 value. Thanks to all who completed the survey!
Have you heard? The Postharvest Technology Center is now on Instagram! If the ‘Gram is your main social media jam, then go ahead and give us a follow. We’d love to share our latest happenings with you and keep up with you on our new page!

The fight to curb food waste increasingly turns to science – and the news media (most recently the Associated Press) continually turns to Dr. Beth Mitcham for her expertise in produce handling and food-waste reduction. Join our social media communities to see more great content like this!

The 2022 Christmas holidays are now behind us, but Dr. Beth Mitcham’s research on the postharvest physiology of Christmas trees, conducted as a master’s student at North Carolina State University, has endured for many seasons. Follow us today to discover more fun facts like this.

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**RESEARCH CORNER**

**A Comparison of Two Firmness-testing Machines for Measuring Blueberry Firmness and Size**

If you need to measure blueberry firmness, you will be interested in this paper. The authors compared two machines that use compression firmness measurements to measure blueberry firmness.

The FirmTech II firmness-testing machine has been in use for the past 30 years by blueberry researchers and packers worldwide. The FruitFirm 1000 device has been on the market since 2017. Both devices use a load cell to compress berries and determine a force-deformation value as a measure of firmness. Fruit size is obtained simultaneously. The devices differ in how data is saved.

The study compared fruit firmness and size measurements for several commercial cultivars and breeding accessions of northern highbush blueberry. They found slight differences in fruit firmness and size measurements between the two machines, but these measurements were generally consistent across the machines. Their results suggest that, in general, one machine can predict the measurements taken on the other machine, which is important for researchers and industry professionals who may be considering the purchase of a new firmness-testing unit. These units can both be used for measuring cherry firmness, although this was not compared in the current study.

**QUESTION**
I work in the fresh fruit industry. Imported stone fruits arrive every year with much less flavor or no flavor at all. How can we improve this?
ANSWER
There are two basic problems with stone fruit that need to be shipped long distances. First, it tends to be harvested less mature, which reduces the sugar content and flavor compounds. The second problem is stone fruit that are exposed to temperatures during transit that induce chilling injury. Chilling injury reduces flavor and can make the fruit dry. It is best to harvest a bit more mature, but still firm, and use excellent pre-cooling and transit at 0°C throughout transport, while avoiding temperatures between 2 and 7°C.

Visit our [Produce Fact Sheets](#) for more information about handling a range of produce types!
Our website needs your help!

The Postharvest Technology Center got its start more than 44 years ago, back when the internet seemed like science fiction.

Today, our 11-year-old website remains the go-to source for produce information for many, and is the primary way we share our latest research findings, produce-handling recommendations, and course information.

You may have recently tried to visit our website, only to be met with a blank screen or warning message. This means it's time for an upgrade and we need your support to complete the task.

Please consider making a tax-deductible donation today!

Thank you for your support!
Postharvest Questions. Please send your postharvest questions to postharvest@ucdavis.edu, and we'll see if one of our specialists can help! (Our answers to "Ask the Produce Docs" questions represent the best understanding of the current state of knowledge at the time of the latest update and does not represent an exhaustive review of all research results. Answers are for guidance only. Recommendations may vary from those listed because of, but not limited to, geographical differences, cultivar differences, maturity at harvest or ripeness, growing conditions, grade and quality at harvest, temperature management practices after harvest, and use of special treatments. The UC Postharvest Technology Center and individuals answering the questions are not responsible for any losses, injury to you, any other person, or any property. Further, users agree to release the UC Postharvest Technology Center and individuals answering the questions from all claims and liability related to use of any content.)

Archived Items. Please visit our datastore of all previous “Ask the Produce Docs” questions and answers, and peruse archived copies of our PDF e-newsletters.

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Editorial Review. Beth Mitcham


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