

Pre-Conference Citrus Tour Agenda

March 8, 2019; 9:00-9:30 PM

Tour departs from and returns to the Riverside Convention Center



Stop #1: UC Riverside Agricultural Operations 9:00 AM -11:45 AM (2 hours 45 min)

1060 Martin Luther King Boulevard., Riverside, CA 92507

Tour of the UC Riverside Agricultural Operations

The University of California founded the [Citrus Research Center and Agricultural Experiment Station \(CRC-AES\)](#) becoming the Citrus Experiment Station in Riverside, CA in 1907. The CRC-AES is world renowned for research on subtropical crops, turf, vegetables and field crops. Current research includes the development of citrus varieties and rootstocks, as well as disease and insect management, postharvest disease control and handling methods, and cultural practices for improved citrus production. The tour will include stops at research sites and will include the heritage grove to see the trees where Dr. Fawcett originally identified citrus concave gum as well as other important viroid diseases. The CRC-AES is managed by the Department of Agricultural Operations, a support Department of the [College of Natural and Agricultural Sciences \(CNAS\)](#). Agricultural Operations serves as a point of integration for applied and basic research under field, greenhouse, and screenhouse conditions and offers the opportunity to collaborate across disciplines. Essentially, it is the field laboratory of CNAS.

Peggy Mauk, Ph.D., Director, Agricultural Operations, UC Riverside

Visit to the UCR Citrus Variety Collection, a key resource for research, breeding, characterization and outreach. The 1048 cultivars and species of citrus and related genera in the Aurantiodeae were amassed over 100 years since establishment as part of the UC Citrus Experiment Station in Riverside, CA. The CVC contains both field trees and a “back-up” collection of potted trees cooperatively maintained by UCR CVC and USDA National Clonal Germplasm Repository for Citrus (NCGRC) in federally approved Asian Citrus Psyllid (ACP) exclusionary structures to protect against potential Huanglongbing (HLB) infection. A new-screened structure for additional trees of each accession will provide further protection and assure sustainable growth, flowering and fruit set. The tour will provide an opportunity to view and taste a small portion of this diversity.

Tracy Kahn, Curator and Givaudan Citrus Variety Collection Endowed Chair, UC Riverside

Visit the National Clonal Germplasm Repository for Citrus and Dates (NCGRCD), USDA Agricultural Research Service (ARS). The repository was established in 1987 as one of 20 genebanks in the National Plant Germplasm System (NPGS). Its mission is to acquire, maintain, preserve, document, characterize, evaluate, and distribute germplasm of the genus Citrus and related taxa in order to preserve the genetic diversity of the *Rutaceae* family for the long-term. We will discuss how this mission is accomplished and the quarantine regulations which must be followed. You will see the USDA APHIS-inspected protective screen house which houses the sanitized collection, biological indexing within the protective greenhouse, and a demonstration of how material is processed for long-term preservation by cryopreservation.

MaryLou Polek, Ph.D., Research Leader & Plant Pathologist, USDA ARS, Nat'l Clonal Germplasm Repository for Citrus & Dates

Stop #2: Citrus Historic Park with Lunch 12:15 PM -1:15 PM (1 hour)

9400 Dufferin Avenue, Riverside, CA 92507

This park preserves some of the rapidly vanishing cultural landscape of the citrus industry and tells the story of this industry's role in the history and development of California. The park recaptures the time when "Citrus was King" in California, recognizing the importance of the citrus industry in southern California. In 1873, the U.S. Department of Agriculture forever changed the history of Southern California when it sent two small navel orange trees to Riverside resident Eliza Tibbets. Those trees, growing in near perfect soil and weather conditions, produced an especially sweet and flavorful fruit. Word of this far superior orange quickly spread, and a great agricultural industry was born. In the early 1900s, an effort to promote citrus ranching in the state brought hundreds of would-be citrus barons to California for the "second Gold Rush." The lush groves of oranges, lemons and grapefruit gave California another legacy - its lingering image as the Golden State - the land of sunshine and opportunity.

Stop #3: Joshua Tree National Park 3:45 PM -5:00 PM (1 hour and 15 min)

Hidden Valley Trail (1 mile) – discover a rock-enclosed valley that was once rumored to have been used to cattle rustlers.

Joshua Tree National Park is a vast protected area in southern California protecting a unique natural ecosystem. It's characterized by rugged rock formations and stark desert landscapes. Named for the region's twisted, bristled Joshua trees, the park straddles the cactus-dotted Colorado Desert and the Mojave Desert, which is higher and cooler. Keys View looks out over the Coachella Valley, a major agricultural area. Hiking trails weave through the boulders of Hidden Valley.

Georgios Vidalakis, Ph.D, Microbiology and Plant Pathology, UC Riverside

Stop #4: Palm Springs with Dinner 6:30 PM -8:30 PM (2 hours)

Enjoy dinner (included in registration) followed by a visit to shops and galleries in Palm Springs to end the tour in a wonderful and memorable experience in one of the landmark areas of Southern California. Tall, light-covered palm trees, gently shade the street as you stroll beneath majestic Mount San Jacinto. The atmosphere is friendly and fun.

Pre-Conference Citrus Tour Agenda

March 9, 2019; 9:00-4:30 PM

Tour departs from and returns to the Riverside Convention Center



Stop #1: The California Citrus Clonal Protection Program/Delfino Lab 9:00 AM -11:00 AM (2 hours)

4650 14th Street, Riverside, CA 92507

The California Citrus Clonal Protection Program (CCPP) is a part of the University of California, Riverside, Department of Plant Pathology. The CCPP is a cooperative program with the California Department of Food and Agriculture (CDFA), the United States Department of Agriculture Animal and Plant Health Inspection Service (USDA-APHIS) and the citrus growers of the state of California represented by the Citrus Research Board. The CCPP is responsible for the introduction, disease diagnosis, pathogen elimination, maintenance and distribution of true-to-type primary citrus propagative material of all the important fruit and rootstock varieties for the needs of the California citrus industry, citrus researchers, and over 2,000 citrus enthusiasts.

Georgios Vidalakis, Ph.D., Microbiology & Plant Pathology, UC Riverside

Stop #2: Washington Navel Tree 11:30 AM -12:00 PM (30 min)

Corner of Magnolia and Arlington Avenues, Riverside, CA

It was in 1873 that Tibbets planted the first pair of navel orange trees, arrived from Bahia Brazil, in the still-burgeoning city of Riverside. Up to that point, American orange varieties had been filled with seeds and grew tougher rinds, simply making them less attractive. By comparison, the Brazilian strain of orange that Tibbets planted was brighter, seedless, and developed a much thinner (and easier to peel) rind. After the trees successfully fruited, budwood were taken to clone the trees, and with a few generations there were groves of the navel oranges growing across California, all genetically identical to the originals.

One of the original trees died in 1921, and the remaining tree also began to develop debilitating plant diseases, originally phytophthora infection and later it was threatened by tristeza quick decline. Yet thanks to conservation efforts by the City and the University of California Riverside, we will see the beautiful inarching with sour and trifoliolate orange, that took place in the 1940s and again in the 1950s, the second parent navel tree lives on.

Today the parent tree sits on a small patch of land at a Riverside intersection. A plaque has been erected to highlight the importance of the plant, and local botanists continue to work to make sure that the California orange industry is not orphaned. Our generation has been tasked to protect this 146 years old living treasure against ACP and HLB. In addition to regular inspections, testing and insecticide treatments once more UC Riverside and the City have made plans to build an insect protective structure around the tree.

OPTIONAL: Stop #3: Ontario Mills Mall 12:30 PM -4:00 PM (3.5 hours)
or return to the hotel at 1:00 PM

1 Mills Circle, Ontario, CA 91764

Ontario Mills is the largest shopping mall and outlet mall in San Bernardino County, California. It is located in Ontario, California, and with 28 million annual visitors, it is one of the top shopping and tourist destinations in Southern California.

This leg of the tour is optional for any of you that would like to buy something for family, friends or yourselves. If you would like to have a couple more hours to prepare for the opening dinner the bus will stop at the hotels area before departing for the mall.

Lunch will be on your own.