



Central Coast Chapter CRFG

October 2023 Newsletter

by Dara Manker

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Next CRFG Meeting: Cal Poly's Plant Conservatory



When: Saturday, November 11, 2023

Where: Cal Poly Campus (near the Poly Canyon entrance)

Schedule:

12:00 1:00 pm: Set up

1:00 – 1:30 pm: Attendees arrive; socializing and refreshments

1:30 – 3:30 pm:

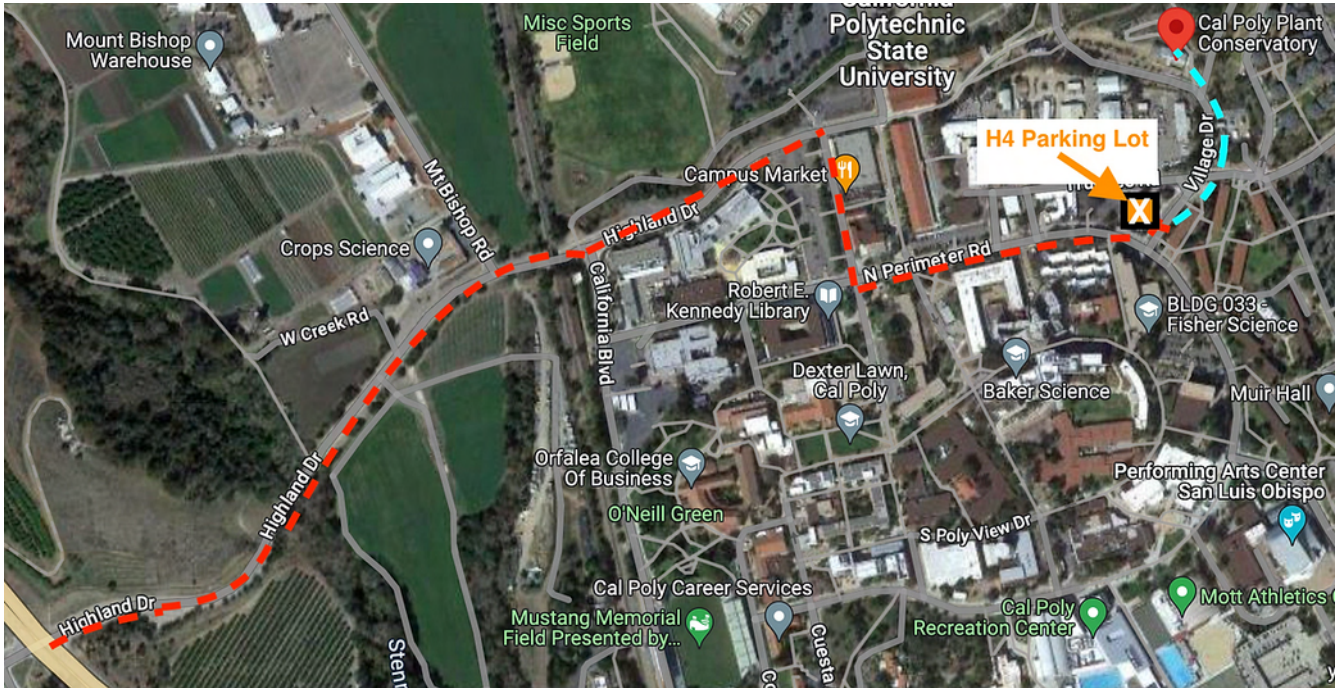
1. Chapter announcements.
2. Tour the Plant Conservatory

3:30-4:00 pm: Clean up.

Directions & Parking:

Please note the directions below include an 800 ft walk uphill from the H4 parking lot to the Plant Conservatory. If you cannot make this walk, please arrange to have someone drop you off at the pull out just in front of the Plant Conservatory, then have them park the car in the H4 parking lot. If you have items to drop off for the meeting, you can do the same.

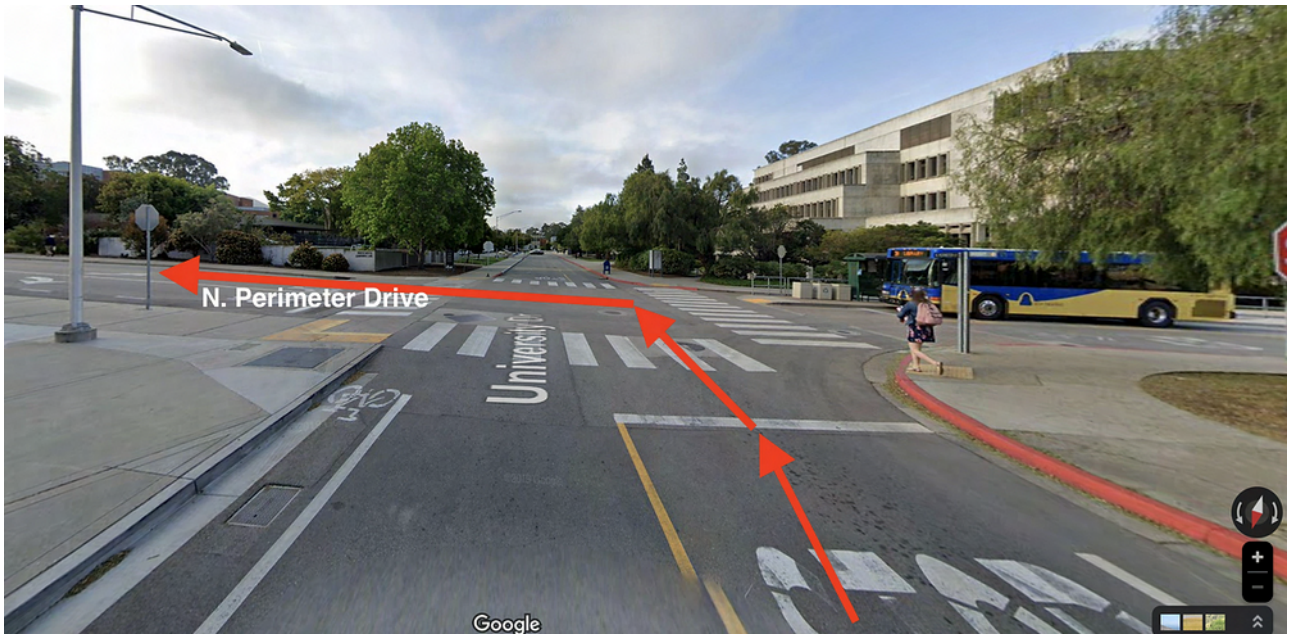
1. From Hwy 1, take Highland Drive toward the Cal Poly campus.



2. Drive past the CRFG orchard, under the railroad bridge to the first stop sign.
3. Continue straight on Highland Drive one more block to the 2nd stop sign.
4. Turn right on University Drive:



5. Turn left onto N. Perimeter Drive. Drive up the hill.
You will encounter 3 more stop signs.



6. At the 3rd stop sign, turn left onto Village Drive:



Directions continued on next page...

7. In about 100 feet, turn left into the H4 parking lot.
Parking is free on Saturday, no permit required.



8. Park in the H4 parking lot:



Directions continued on next page...

9. From the H4 parking lot, walk up Village Drive approximately 800 feet to the Plant Conservatory (building 72):



Announcements of Upcoming Events

NEEDED! Volunteers for committees and officer position.

We are currently recruiting a **volunteer for the Scholarship committee.**

In December, we will need dedicated replacements for **Editor of this Leaflet newsletter**, and **Treasurer**. The Treasurer is on the chapter board.

Larry Hollis, as chair of the nominating committee, says this:

“This year is shaping up to be a year of significant change and challenge for our chapter. In addition to Jenny and Tom passing the baton for the Leaflet Newsletter, Nell has announced she needs to step down from her roles in chapter activities (Scholarship chair & Rootstock orderer), and after 22 years of keeping the chapter’s books balanced, Dick, our highly regarded but underpaid treasurer has given his notice”.

If you are interested in volunteering for one of these positions, please contact central_coast@crfg.org (there is an underscore between the l and c), or speak to Larry H at the next chapter meeting.

December 9th Meeting: Annual Holiday Party

This meeting is for Chapter members only.

Plant exchange, potluck, and fun!

The location will be the same as last year. Details will be emailed to members in the November newsletter.

Meeting Notes and Presentation: October 14, 2023 Cagliario Plant Science Facility, Cuesta College North County Campus

Report by Dara Manker

We met professor Dean Harrell at the Cagliario Plant Science Facility at Cuesta College's North County Campus.

We'd visited a year ago to learn Dean's projects and tour the vineyard, orchard, and vegetable gardens. This year we visited to learn why we might want to build a BEAM bioreactor, and how one is built.

Prior to Dean's presentation there were several Chapter announcements. Some of the events mentioned have already taken place, and you can read about them in this newsletter.

Sharon told us that she has recently been in contact with Elizabeth Johnson of Seed Savers. (Elizabeth will be the speaker at our March 2024 meeting.) Elizabeth gave Sharon a bag of seeds for Sharon's elementary school. Sharon took the time to put some of the seeds in little bags to share with us today.



Several of Dean's students were in attendance. Manny kicked off the meeting by asking the students to introduce themselves and tell us about their goals.



Manny then handed the microphone off to Dean. If you have not taken the time to attend a meeting where Dean is the speaker, you have done yourself a great disservice. Dean is a fount of knowledge. He teaches classes in Soil Science, Plant Science, Viticulture, and Plant Propagation and Production.

Today our topic was creating a bioreactor, so Dean began by talking about soil health, the roles of microbes and specific minerals.



Dean then explained the importance of mycorrhizal fungi, how we just started learning about it in the late 1980s. Dr. Elaine Ingham spoke about them in the 1990s, but was not given much credence at the time. Now, of course, times have changed and we are learning more and more about plant and mycorrhizal fungi interaction. He recommended listening to her talks online.

Among many other things, Dean told us that 80% of land plants have associated mycorrhizal fungi, though cruciferous vegetables do not; that phosphorous is not very mobile in soil, but mycorrhizal fungi helps with that; that mulching and cover crops can help protect the fungi in your soil. He spoke about various cover crops such as radish, cilantro, root vegetables, beans, and onions. Fungi-rich soil helps suppress weed growth. It is important not to till or otherwise invert your soil, because you will break up the mycorrhizal fungi.

He mentioned that compost teas are also good for fungi. He makes it at the facility. He mentioned a smaller brewer designed for home growers would be very beneficial.

Making Your Own Compost Tea Brewer

Editor's Note: The morning after the meeting, I received this email from Elaine R:

"Yesterday Dean talked about the importance of compost tea. I found a video and directions for making one. I think it might be something that CRFG members would like to learn about.

"Here is a link to the video. And the plans from Oregon State University are also attached. There are a lot of videos about making the compost tea brewer."

Hold down your "command" key and click on the blue text below to open these links:

Video: [DIY Trash-can Compost Tea Brewer](#)

[Plans for building the Compost Tea Brewer](#)

Parts on Amazon:

- * [Air pump](#)
- * [Ful-Power](#) (Humic acid, nutrient)
- * [Alfalfa Meal](#)
- * [Trash Can](#)
- * [Strainer Bags](#)
- * [Compost Sprayer](#)

Dean and his students are constructing two BEAM bioreactors.

Some of you may recall that Tim LaSalle gave a presentation on BEAM (Biologically Enhanced Agricultural Management) at our February 2021 Chapter meeting. He told us about the Johnson-Su Bioreactor devised by Dr. David Johnson and his wife Hui-Chun Su.

See: <https://www.csuchico.edu/regenerativeagriculture/bioreactor/>

This bioreactor makes a clay-like fungal-dominant compost. It improves soil health by increasing the amount of microbes and fungi. The bioreactor compost enables normal symbiosis between plant roots and the microbes, "enhancing crop yields, water retention, plant water use efficiency and carbon sequestration."

The compost takes a year to develop, but you never need to turn the contents.

The process is aerobic: air flows up through the holes initially created by perforated pipes. You keep the contents wet at 70% moisture content. Worms can be added after the temperature drops down to about 80° F.

We walked out to a mostly completed bioreactor. Dean had filled it about two-thirds full, leaving a little space so that we could see the perforated pipes in the compost, and also participate in its completion.

Right next to it was the pallet for the 2nd bioreactor, already prepped with holes to receive the perforated pipes.

He had a pile of compost waiting for us nearby. The compost is OMRI (Organic Material Review Institute) certified, the top national organic certification.



Dean warned about composting with manure from animals fed with straw, and using straw mulches. Systemic broadleaf herbicide 2,4-D (2,4-Dichlorophenoxyacetic acid) is often sprayed on straw, and can remain active in the soil for 3 years.

In the following photos, we scoop up the compost into buckets to finish filling the bioreactor. We also discovered clumps of fungus already growing in the compost.





Dean then showed us a drip-line hose assembly created to fit on top of the bioreactor. It will be attached a water supply and timer to make sure the contents of the bioreactor are kept damp over the next year.



After filling the bioreactor, Dean told us about the trees they are planting outside the fence. These are just starting to take off. They are a mixture of trees, including desert willows (*Chilopsis linearis*, a subtropical tree that flowers all season and is drought tolerant), sycamores, pistachio, deodar cedar, incense cedar, and even a giant sequoia.



Desert Willow flowers

We got to walk around the facility with Dean to check out the grapevines, fruit trees, vegetables, and flowers. He told us interesting information about the plants and answered our questions.

Many thanks to Dean for hosting our meeting today!



CRFG Orchard Workday Saturday, October 21, 2023

Report by Dara Manker



Here's what happened on the Orchard workday:

Elaine had made tree name tags for all of the orchard's trees.

This was no small project! She etched the names of each tree onto metal tags she purchased from Amazon, drilled holes in the corners, inserted grommets, and bagged the tags by orchard row. She purchased stainless steel cable and crimping sleeves. In the photo Elaine is adding wire to each tag and will proceed to put them on the orchard trees.

In the photo's background, Larry waves hello before heading to the back of the orchard to spend several hours hoeing out invasive weeds.

Dean and his friend Angie came and helped, hanging signs and pruning.

Larry, Marv, Drina, and I removed invasive weeds.

The orchard at 8:30 a.m.:



The orchard at 12:10 pm:



Manny cut back the oleander and fountain grass on the hill:



Erica and Jesse's children assembled and painted the new children's potting bench.

This task required assembly with a large amount of screws, an initially daunting task made much easier when Jesse's friend Chris brought a screw gun.

Jesse laid out the pieces, and Maggie and Henry begin assembly with a screwdriver.



Raine and Remy take their turn with the screwdriver.

The kids paint the potting bench.



The result is a delightful riot of colors, colorful enough to attract butterflies!
(Can you spot it?)



Land Conservancy Apple Picking and Pressing **Thursday, October 19, 2023**

Report by Dara Manker

Photos by Larry H.

Our local chapter was invited to join the Land Conservancy (LCSLO) members at SLO Creek Farms for their 2nd annual apple picking and apple pressing event.

CRFG members Larry, Heather, Mark, Manny and I picked, washed, and chopped the apples, pressed them into juice, and poured it for the attendees using the apple press our chapter restored and donated to LCSLO last year. Marv sold fruit trees, the money split between LCSLO and CRFG Central Coast Chapter scholarships.







Annual Great AGventure Saturday, October 7, 2023

Report by Dara Manker

Jim, Marv, Manny, and Pat and I drove up to the Paso Robles Fairgrounds to participate in the Annual Great AGventure.

Forth-grade students from around the county participate in five 20 minute events. Walking from station to station, they learn about animals, plants, soils, farm equipment, owl pellets, water resources, and best of all, apple grafting!

Jim, Manny, and Pat each had their own table in different parts of the fairground. Every 20 minutes a group of 30 students walked up, sat down, and listened to their grafter explain grafting apple trees. This was repeated four more times until all five groups have been taught.



Jim shows the students a picture of a very ugly (but very delicious!) apple.

Pat demonstrates how to make a cleft cut in the rootstock



Manny describes some useful properties of rootstock



AG Harvest Festival

Saturday, Sept. 30, 2023

Report by Dara Manker

The CRFG Central Coast Chapter participated in the Arroyo Grande Harvest Festival to sell fruit plants to raise money for the chapter's Scholarship Fund.

We did not know until we arrived that our booth would be in a different location this year. We set up the booth in Olohan Alley and filled five tables with pots fruiting plants that chapter members grew and donated, including plants from our chapter's propagation meeting last March. There were dragon fruit, passion fruit, sapotes, cherimoyas, white strawberries, figs, apples, pears, feijoa, loquat, and more.



Around 9:15 am, a 45 minute rain shower had us huddling under Tucker's EZ-up tent until it passed.



The day was also Marv's birthday. Keri S. had made a pineapple upside-down cake for him, which we all enjoyed after singing happy birthday.

We talked with many people, answered questions, handed out many flyers, sold plants, and by the end of the day raised \$722 for our chapter's Scholarship Fund.

Vegetable Envy: The National Heirloom Expo 2023

Report by Linda Robertson

Photos by Don, Elaine, and Linda R.

Editor's note: The September newsletter went to press before Linda's article came in. Here is Linda's article.

The Heirloom Expo, organized by Baker Creek Seeds for the past ten years or so, is an over-the-top celebration of the fall vegetable harvest. It used to be held at the Santa Rosa Fairgrounds, but this year it came to our part of the state, the fairgrounds in Ventura. Baker Creek Seeds specializes in heirloom and open pollinated vegetable varieties, and a lot of their catalog was on display. In the exhibit hall, where CCCRFG's table was set up, there were tables of peppers, red, green, purple, big and small, sweet and hot. And there were tables of tomatoes, along with vendors selling heirloom seeds. But dominating everything was the squash. The squash pyramid which used to be the centerpiece in the hall in Santa Rosa was outside this year, and so was a squash labyrinth, its paths outlined by a rainbow of pumpkins, gourds, and winter squash. Inside the hall four long rows of tables were heaped with every variety of winter squash, pumpkins, and melons I'd ever heard of and a lot more, in all sizes, shapes, and colors.



The Expo began on Tuesday, September 12. Elaine Rathbun and Don Shealy drove down on Monday and set up our exhibit, a pair of tables with plates of fruit grown by our members, each one labeled, and the tables backed by an eye-catching display of photos of our chapter at work: our grafting classes, pruning demonstrations, the scion exchange, the giving of scholarships, our annual fruit tasting in the orchard.

Elaine, Don, and Gabrielle Robbins staffed the table on Tuesday. We were amazingly popular: Elaine reported that by the end of the day we'd run entirely out of brochures, and our big pile of Fruit Gardener magazines was also gone. Michael and I arrived at about noon on Wednesday and stayed until the Expo ended on Thursday. Larry Hollis spent Wednesday afternoon at the table with us. Elaine, who was staying with family in the area, was able to take a break before coming back to help take down the table on Thursday night.

We had a wonderful time chatting with visitors who came to check out our table. People were impressed, and sometimes surprised, by the variety of things we can grow on the Central Coast. Jack Swords's macadamias and a cherimoya got a lot of interest, and so did Gabrielle's tiny Corinthian grapes. A surprise hit was the branches of fresh goji berries contributed by Gabrielle. Many visitors knew about dried goji berries, but had never seen them fresh, and most didn't know they grow easily in our part of California. A lot of people from southern California were interested in finding and connecting with a CRFG chapter near them, and a few expressed interest in trying to revive the inactive Santa Barbara-Ventura chapter.

During breaks, we explored the Expo and the other exhibits and sellers' booths. There were other nonprofits with tables, including organic gardening clubs and the local Master Gardeners. One group had a particularly interesting table featuring planting systems of different cultures, including a display of the Mexican milpa system, featuring multiple varieties of corn, beans, and squash.



There were vendors selling things such as compost tea systems, books, solar ovens, and honey products. The Baker Creek folks were selling planting calendars and garlic bulbs; and each afternoon between 3:00 and 6:00 they hosted a seed swap where attendees could get free seeds for a variety of heirloom vegetables. I missed out on one of my favorite heirloom squashes, a giant one called pink banana, but got seeds of an even bigger one, Pastila Shaman.

The best part of all was Thursday evening, when, before the enormous displays of vegetables were taken down, presumably to be donated, they sold the squashes at fire sale prices and let people take tomatoes and peppers for free. We went home with enough squashes and pumpkins to last through the winter, along with a tasty selection of tomatoes and peppers.

As we were taking down our display, we noticed, tucked away among the dishes, a blue ribbon – our table had won a first prize. Kudos to our committee, and especially Elaine and Don, for their work on designing such an interesting and attractive table. All in all I had a great time, and I think our group of volunteers and everyone who contributed to the project did a lot to spread the word about growing fruit in our part of the world. Many thanks to everyone; to borrow a phrase from Joe Sabol, “What fun it is to be a member of CRFG!”

