



LOS ANGELES CHAPTER

2023 Volume XXVIII Issue 6

<http://www.crfg-la.org>

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LECTURE/PRESENTATION – Charles Portney

Topic: Pawpaws

Date: Saturday, November 18, 10:00 am

Location: Sepulveda Garden Center
16633 Magnolia, Encino CA 91406

Charles Portney, whose vast knowledge of plants and fruiting things is often on display during our annual plant sales, will expound on the subject of the largest native fruit in North America – the pawpaw. He even plans to bring pawpaw sorbet for our snack table!!

Further, for this month's Plant-and-Other-Stuff Sale, Charles is contributing his terracotta pots and saucers, with the strong recommendation that others (from non-quarantine areas) also contribute pots, gardening tools (as Kathy Vieth so generously did at the last meeting), plants, etc. All members are asked to please bring something for our potluck, which will follow a question-and-answer session. (Note: Charles may also bring some other-flavor sorbets in addition to the pawpaw sorbet.)

EVENT – Annual Holiday Party

Date: Saturday, December 16, 10:00 am

Location: Sepulveda Garden Center
16633 Magnolia, Encino CA 91406

For L.A. Chapter members (and their Significant Others) only, please. Bring your jingle bells and holiday spirit to our annual holiday fest! There will also be a White Elephant gift exchange for those who bring a wrapped gift.

Also, please bring something for our fabulous potluck LUNCH!

Save the date!

CALENDAR FOR LA CHAPTER 2023

November 18 Speaker – Charles Portney: Pawpaws

December 16 Holiday Party

LOOKING BACK

By Deborah Oisboid

September 23, L.A. Beekeeper's Association

At our September meeting, we had "story time" with the Los Angeles Beekeeper's Association. It wasn't quite the technical presentation many of us were expecting, but we did learn many interesting things about bees from our guests Steve Savage and Barbara Knighton.

Bees have been around since the dinosaurs; for at least 60 million years and maybe longer. By contrast, humans (in our current form) have been around for about 200,000 years. So bees have been here about 300 times longer than we have!

Beekeeping is one of the oldest agricultural professions, and honey gathering is even older. There is a well-preserved painting in the Cave of the Spider in Valencia, Spain estimated to be about 8,000 years old. It depicts a man climbing up a rope on a cliff and reaching inside a beehive with bees swarming all around him.

The first "kept" hives were probably swarms which moved into discarded pottery containers or trees. Humans eventually learned how to maintain the hives and harvest the honey. In Egypt, a jar of honey was discovered in King Tut's tomb, and some brave soul tasted it and said it still tasted sweet!

In 1752, Reverend Lorenzo Langstroth enjoyed beekeeping as a hobby. He invented the modern hive which bears his name. The Langstroth hive contains parallel honeycomb panels spaced exactly $\frac{3}{8}$ of an inch apart. This allowed him to monitor the health of his bees. And making the panels removable allowed an easier way to harvest honey.



Bees make their own wax, but some modern combs start with a black platform/starter on the panels. Honeycombs are not perfectly vertical; they have a 5° tilt, which keeps the honey from dripping out.

Honeybees are critical to our food supply. They pollinate nearly 80% of all crops in the USA. In fact, two out of three types of food that we eat are dependent on bee pollination. Other pollinators include native bees, flies, hoverflies, butterflies, moths, and hummingbirds.

We learned that it takes two million flowers to make one pound of honey. And the amount of worker-bee energy it takes to fill one frame of a comb is about 9 times more!

Because we benefit so much from bees, we, as gardeners, should be reasonably familiar with the social structure of honeybees, as well as their lifecycle. The Queen is the largest insect in the hive. Her abdomen is about 2 to 3 times the length of a regular bee, and she lives between 2 to 4 years. Other honeybees only live about 6 weeks. From egg to larva to pupa, a honeybee eventually "hatches" from the comb and gets right to work. Its first job is to clean out the cell it emerged from. Then it begins to care for other bees. Bees cycle through the various "jobs" within the hive. We learned about a few of those jobs: cleaner and nurse bees, and pollen collectors. This website:

<https://www.perfectbee.com/learn-about-bees/the-life-of-bees/the-role-of-the-worker-bee> goes into more detail, listing 10 different jobs within a hive and the bee's age while working them.

Mortuary Bees (days 3-16) - remove dead bees/larvae from the hive, moving them outside and far away, to reduce the likelihood of disease.

Nurse/Drone Feeding Bees (days 4-12) - feed the baby drones (who are unable to feed themselves) until the babies can find the honey supply and eat on their own.

Queen Attendant Bees (days 7-12) - feed and groom the queen and spread her Queen Mandibular Pheromone (QMP) through the hive; QMP signals to the other bees that the hive still has a viable queen. (And is probably why swarming bees often return to a former hive location.)

Pollen Packing Bees (days 12-18) - collect pollen brought back by foragers and store it in cells; pollen is mixed with a little honey to prevent it from spoiling and is fed to the brood.

Honey Sealing Bees (days 12-35) - drying honey to the appropriate water content, then capping the honey cell with wax produced by glands in their abdomens.

Honeycomb Building Bees (days 12-35) - receive wax from other bees and use it to construct more honeycomb.

Fanning Bees (days 12-18) - provide air conditioning to the hive by fanning their wings to evaporate water on their backs.

Water Carrying Bees (days 12-18) - carry water to the hive and spread it along the backs of the Fanning Bees.

Guard Bees (days 18-21) - protect the hive from unwanted visitors.

Foraging Bees (days 22-42) - gather food for the hive.

After collection, pollen is mixed with nectar and water to form "bee bread." You may see a rainbow of Honey within the comb. The top layer is honey, the next layer is "bread," the next layer is nectar, and below that are the capped cells with eggs and larva. You can have multiple flavors of honey inside a single hive, depending where the bees have been foraging.

Finally, there are **Drones**. Drones are the bees which service the Queen, and that's it. They're also the ones who travel with her to start a new hive. Their lifespan is about 55 days.

Bees swarm when they need a new home. The Queen will first produce a new Queen, and then she flies off with the drones in a swarm. They mate with her in mid-air. (The internet says that only the fastest drones get to mate. Also, drones die after mating. Like with a bee sting, after drones have done their primary job, they lose some vital organs, which remain with the Queen.)

After mating, the Queen will have a huge collection of genetic material stored in her body. For the rest of her life, she uses it to breed the new hive.

Our speakers said that although the buzzing of a swarm can sound frightening, humans are at relatively low risk of getting stung because the drones are thinking of other things. However, you still want to stay clear of swarms because the drones want to protect the Queen. She will be at the center of a cluster.

How does the swarm decide where it's going to settle? Scouts fly out looking for a safe, warm, dry location. One bee might find a birdhouse, another finds a water

meter, and they dance to say what they've found. Through "bee democracy" the hive decides the water meter is too small, but the compost bin is perfect, and then they move in.



Beehives contain certain pheromones and smells. If you clear the bees out of a hive, they might still return. You can try spraying vinegar or after a bee removal to repel them from returning. (Preferably use something organic.)

It's easier to capture bees with a used hive because of the leftover smell. If you get rid of the old smell, they'll be less likely to return.

In addition to the information from our guest speakers, we learned quite a lot from our own members. Lydia and Reza Shabestri have five hives. In wintertime, they leave 50 pounds of honey in each one to feed the bees; the rest they collect for themselves.

Bees can travel up to a 7 mile radius. The interior of the hive must be between 94° to 98° F to raise baby bees.

There is a large population of Africanized bees in the mountains above Glendale. The Sabestris learned that if you have Italian bees, it creates a buffer zone against African bees. A beehive starts to use up the local resources, so the Africanized bees stay out.

European honeybees are known to have a "sweet" disposition, but they aren't as hardy as Italian bees, which can resist certain diseases such as the varroa mite. (The varroa mite is one possible cause of Colony Collapse Disorder.)

L.A. Beekeeper Association members are required to take lessons through the U.S. Department of Agriculture and must adhere to strict guidelines in order to own a hive. For instance, the hive needs to be more than 25 feet from your property line. You cannot maintain a beehive in the front yard. The rules are all geared towards solving problems between your bees and your neighbors.



Kathleen Doran-Sapelli described the medical benefit of bee stings. She had some scar tissue on her hand which was removed using bee venom therapy. Round one was manual injections of reconstituted bee venom. Round two involved getting a live sting from a bee and then moving the stinger to other spots for so-called "secondary micro stings." Now she says she's not as responsive to bee stings anymore. The therapy reduced her scar tissue, and she can move her hand better now. In the end, our guest speakers commented that the public is becoming more aware of the benefits we get from bees. And that's one of the charters for the Los Angeles County Beekeepers Association: to increase awareness.

After a brief question-and-answer session, we had a honey sampling. The flavors were wildflower honey (light and sweet), orange blossom honey (a hint of citrus), sage honey (amazing aroma!), buckwheat honey (amber and complex), and avocado honey (very deep and almost smoky). The honey color darkened with each sample until it was a rich, dark brown (avocado).



Meanwhile, we also had a small plant sale. Thank you very much to all our donors! And thanks to everyone who made our potluck snack table so delicious.

We had a great time sharing our stories about bees and pollination, and we thank our two guests for getting all of us buzzing about bees.

October 28, Mark Steele: Much Fruit in Small Spaces

A topic near and dear to many of us in CRFG: How to grow multitudes of fruit when you have very little space. Mark Steele presented his suggestions in a clear, practical, easy to understand manner.

Mark says the biggest advantage to having a small yard is that it's easier to manage than a large one. If you have a small space, you have to make the plants fit. That means a lot of prudence and sometimes very drastic measures.

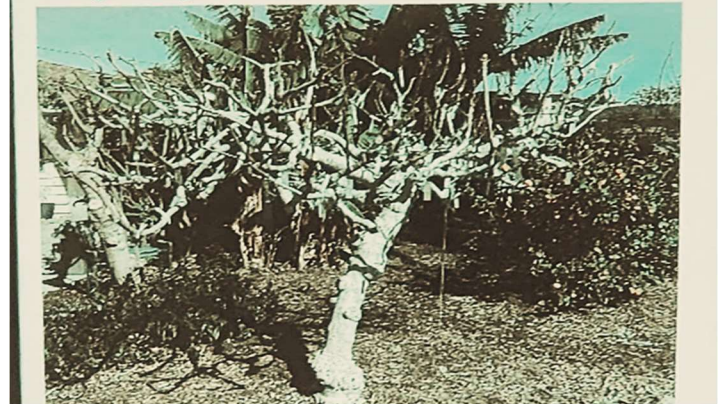
And if you want to add more varieties of the same fruit type in a small area, you learn grafting.

His own property is only about 5000 square feet, yet he packs a whopping 402 varieties of fruit into it.

Including 250 figs.

That is not a typo. Mark has three primary fig trees with multiple grafts. His largest "Frankenfig" tree has well over 100 grafts on it all by itself.

Multi-grafting: this fig tree has about 100 varieties on it



When his family first moved into the house 14 years ago this fig tree was growing by the driveway. He almost removed it because he believed he did not like figs. He's changed his mind since then! There are thousands of fig varieties, and more are introduced every year. Mark says if you can't find a fig that you like then you probably don't like fruit!

He admits he does not get a large harvest of each variety. Some years he only gets one or two fruits from a graft. But he gets to taste a huge number of

different figs each year. He loves trying out new flavors. And if one doesn't pique his fancy, he'll just graft on another one.

Mark is an ichthyologist and marine biologist. He has no background in horticulture. He says his only knowledge about knives came from when he worked in a fish market one summer. His original opinion of grafting is that it didn't make sense: sticking a branch onto a branch and have it grow? Preposterous! Now he knows better.

"Grafting is addictive. When you see this little stick that you've grafted onto something bud out and produce fruit, it's incredible. It's producing life! As a biologist, I love it and I can't stop."

Mark says grafting is simple as long as you follow three rules: Have a healthy rootstock, have a healthy scion, and do it at the right time of year.

Grafting is easy: two easy, very useful grafts

Cleft graft



Bark graft



The simplest grafts he knows are cleft and bark grafts. Cleft grafting is sliding a Vee shaped scion into a simple notch (or slice) in the rootstock, ensuring the cambium layers match, and wrapping well. Mark doesn't like using a cleft graft on figs because the scions are too brittle.

Bark grafting is easiest if the bark is ready slip off. Cut the top off the rootstock, peel the bark back, slide in the scion and wrap it well. Make sure the cambium layers are matched and that air can't get in.

His favorite graft is whip and tongue. It's aesthetic, strong, and self-supporting, although it takes practice to master. An angled slice is made in both rootstock and scion, and then a second cut at the midpoint creates the "tongue" which locks the two pieces together. When Mark switched to whip and tongue grafts on figs, he had tremendous success.

Someone suggested that beginning grafters start with apples and pears because otherwise you'll think you're a hopeless failure. Apples and pears almost guarantee every graft. It gives you confidence.



What tools does he use? A sharp grafting knife or box cutter, pruning shears, "buddy" tape to exclude air, vinyl tape for final wrapping, and an industrial strength Sharpie pen for marking. (The cheaper Sharpies will fade after a few months.) He likes vinyl grafting tape because it's thin and won't strangle the graft. Vinyl tape is thin, and unless the plant is very soft with very thin bark, it will not girdle or damage the bark.

Parafilm versus buddy tape? Buddy tape 100% of the time! It's more expensive, but easier to work with. It's a little more plastic and forgiving, so you can yank on it.

Question: figs have a very strong sap flow. How do you avoid having sap ruin a graft? Some people do a relief cut to allow the sap to drain out so it won't affect the graft. (Mulberries are also awful when it comes to weeping sap.)

After a lively discussion about grafting, Mark gave us a virtual photographic tour of his incredibly densely-packed garden, stopping every so often to extol some of his favorites.



Mark and his wife made a conscious decision when they bought the house to get rid of anything that was ornamental - except for very pretty plants or those which smelled nice. Everything else is edible.

He admits his garden is tightly packed. There's a tiny bit of lawn in the back, but most of it is filled with fruit trees. "If you're claustrophobic, mine might not be a good yard for you to visit!"

In front, there is a huge tree at the curb which he calls the bane of his existence. It's over 20 feet tall, owned by the city, and shades everything in the front yard at some time during the day. Shade, combined with the cool coastal climate, means the front yard doesn't get the warmth some trees need to produce their best.

In addition to the Frankenfig trees, his front yard includes the beginnings of a feijoa hedge, several types of bananas, mulberries, avocado, coffee, Biloxi blueberry, grumichama, caprifig, Valencia orange, Page mandarin, Chilean guava, Glenn mango, dwarf Meyer lemon, MacBeth loquat (with 12 more varieties grafted on!), and some scented plants such as plumeria and salvia.

His side yards are also packed with more bananas, multi-grafted nectarines and peaches, Methley plum, and a wall full of passionfruit vines.

Moving around to the backyard, he has Cherry of the Rio Grande, cherimoya, dragonfruit, avocados, mangoes, strawberry guava, stone fruits, and his larger banana clumps. He even managed to squeeze in a tiny vegetable garden, and a row of berry vines.

Altogether, he has 34 different types of fruiting plants. By creating grafted "cocktail trees" keeping everything tightly spaced, he has created quite the cornucopia!

He doesn't start getting figs until September because he doesn't have enough heat. Mark advised us to become familiar with the microclimates of our own yards and choose plants appropriate to those conditions.

Mark cautioned us to always consider the future when planting something new. Know your plants, and how they will grow and expand over time.

Mark loves bananas. In his climate he has no diseases or pests. They are very easy to grow in the right climate, and away from the tropics where there are many local diseases and pests. But watch out because banana trees

can get VERY big!

Advice: plan for the future...

- Plants grow!
 - give adequate space when planting
 - ... or plan to remove some plants as the yard fills in

newly planted → 18 months later



Someone suggested that Mark, as an ichthyologist, must have some great fertilizer available. Mark replied that fish start to smell bad if they are not buried deeply to avoid attracting vermin. It's a little too much work for him.

What fertilizer does he use? He admits he does less fertilizing than he should. He has heavy clay soil and moisture in the air, so he doesn't use much water either. But he will sometimes bring in a truckload of organic compost and top it with green waste or bark.

Mark commented that in the natural forests, anything that falls on the ground stays there. So, although he's not terrific at composting, he lets nature take care of itself.

However, he did suggest NOT putting your compost bin in a place where it's not easy to get to, because that will ensure you will NOT be composting.

Compost

- put in a convenient spot
- if open container, don't add fruit (just serves as food for pests)



Mark says if you love coffee and have lots of spare time, grow coffee plants! He does nothing to his and gets reliable coffee cherries every year. It does well in the shade, which is good for his garden's microclimates.

The year the Steeles bought their house, someone gave him a banana and that started him on his banana kick. It's his favorite fruit, and if anyone only wants to grow one banana, he strongly recommends the dwarf Brazilian. He also has Rajapuri, which is similar in flavor but has texture issues. But it's 2 to 4 feet shorter than dwarf Brazilian and much easier to harvest.

Mark recommends planting bananas in a spot that's at least 4 by 4 ft wide. You can propagate off little shoots or big shoots. Just make sure you have roots on them!

Bananas spread underground by rhizomes, getting wider at the base. A cluster of bananas is called a "mat." You need to remove the pups that are going the direction you don't want as soon as you see them, or they will get out of hand. Use a hatchet. Or a pry bar!

One reason you need continual maintenance is because bananas start shading each other and the plants get smaller and smaller, and the fruit gets smaller and smaller. Each stalk gets less water, less sun, and fewer nutrients.

There is also something called "stooling," where new growth starts on top of the old corms (roots). They are tall but not stable, so they're at risk of falling over.

Bananas: eventually mats need regeneration



Also, too many banana stems inhibit fruiting, so trimming the pups and keeping three or four adults makes them stronger and healthier. You get slower growth when you have a lot of pups. They will still flower, but it will take longer.

Speaking of maintenance, Mark says you need to stay on top of pruning in a small garden. Do it regularly. Sometimes if you prune heavily, trying to open things up or reduce the size for the space available, you can damage the trees and get fungus. It's better to maintain constantly instead of pruning heavily every few years.

Mark cautions that you can get into an endless cycle, where you trim off drooping branches, but those are the

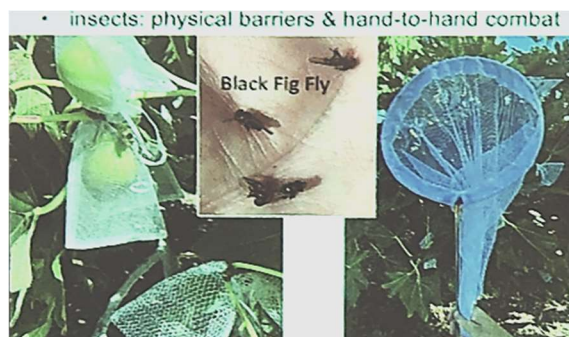
grafted fruit, so you have to regraft them back onto the top. Over and over again.

Mark commented on apical dominance, where the vertical stem is stronger than the side stems. You can use thinning pruning to reduce height and encourage side growth. But that sometimes encourages fast leggy regrowth. How do you keep it in check? Active summer pruning is the best way to keep it under control. During the growing season, pruning causes some roots to die back. The plant basically balances root growth with shoot growth.

Another problem with pruning is preventing exposed horizontal branches from getting sunburnt!

Many of his fruits need help, and Mark will hand-pollinate them. Cherimoya gets the paintbrush method. For feijoa (pineapple guava), he runs his hand across the flowers as he walks past. It's easy and quick.

What about pests? For insects, Mark uses traps and sprays when physical barriers and "hand to hand combat" fails. Right now he is fighting the Black Fig Fly, which causes the fruit to all drop off the tree.



For pests such as birds and mammals (including humans!), he uses physical barriers (nets), scare tactics (mylar tape, motion-activated water sprays), or (gopher) traps.

There was so much to learn! Mark kept the pace moving easily, answering questions, showing photos, explaining his methods, advising, and raving about his favorite fruits! He even brought some potted fruit trees for our mini-plant sale, as well as a dozen or so dwarf Brazilian bananas for tasting. (Scrumptious!)

In addition, Kathy Vieth donated some wonderful gardening tools which were auctioned off. And our potluck table had fabulous fresh fruit (although not from Thousand Oaks: see below) including eight varieties of jujube for tasting. And there was a jello shaped like a brain in honor of the upcoming Halloween holiday.

It was an incredibly packed day full of excellent information and active and open garden conversations. Many thanks to everyone who donated to our auctions, and to the delicious potluck table. And special "thank you" to Mark Steele who made everything so easy to understand!



OFFER: ROOM TO RENT WITH GARDENS

Room to rent/house to share in peaceful Simi Valley. Must love plants, gardens, exotic fruit, dogs and outdoor water features. (You do not have to garden but your opinion will be frequently asked for.) Lots of amenities. Some flexibility on price. If interested, email roomforrent_1@crfg-la.org for price, location, photos, and more information.

WANTED: WAX JAMBU FLAVOR ADVICE

Ray Tyndall is looking for someone who is familiar with different varieties of Wax Jambu (Rose Apple/Syzygium Jambos) and can recommend a specific one for its flavor and adaptability to the Los Angeles climate. If possible, could you provide a fruit tasting? In you can help, please send an email to editor@crfg-la.org.

WARNING: COMPLETE FRUIT QUARANTINE IN THOUSAND OAKS!!!

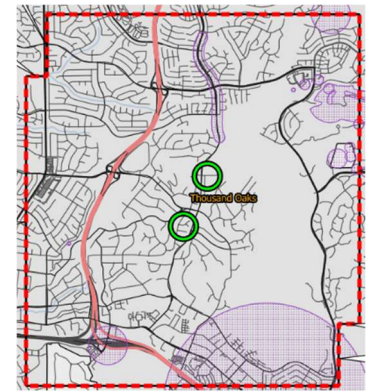
October 23, 2023 - CDFA has declared a quarantine in Ventura County following the second detection of *Bactrocera Tryoni*, Queensland Fruit Fly (QFF) in Thousand Oaks. CDFA considers this a major threat, as it is a pest to numerous crops grown in Ventura, including citrus, avocado, peppers, tomatoes, and strawberries.



The quarantine restricts the movement of **all host crops**. The quarantine is expected to last until no flies are found within 3 full life cycles.

To prevent the spread of fruit flies via infested homegrown fruits and vegetables, residents and people moving through the fruit fly eradication area are urged not to move any fruits or vegetables from their property. Fruits and vegetables may be

consumed or processed (i.e. juiced, frozen, cooked, or ground in the garbage disposal) at the property of origin. If they are not consumed or processed, dispose of them by double-bagging them in plastic bags and putting the bags in the garbage bin for



collection, not compost. There is no mention of plant materials but please assume plants and cuttings are also under quarantine out of an abundance of caution.

<https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=58143>

Thousand Oaks QFF Quarantine map:

https://www.cdffa.ca.gov/plant/pdep/treatment/2023/20231019_PEP_QFF_ThousandOaks_VenturaCounty_20231016_SoF.pdf

WARNING: CITRUS QUARANTINE IN SANTA PAULA!!!

October 3, 2023 – CDFA has declared a quarantine in Ventura County following the detection of the citrus disease Huanglongbing (HLB), or “Citrus Greening Disease,” in Santa Paula. These are the first HLB-positive trees detected in Ventura County.

The detection requires a mandatory five-mile-radius quarantine area around the find site. Citrus fruit, trees, and related plant material **MAY NOT** be moved outside of the quarantine area.

The quarantine area is bordered on the north by Ojai Road; on the south by E Los Angeles Avenue; on the west by Wells Road; and on the east by Balcom Canyon Road.

HLB quarantine maps for Ventura County are available online at:

www.cdffa.ca.gov/citrus/pests_diseases/hlb/regulation.html

Santa Paula HLB quarantine zone:

