



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

LOS ANGELES CHAPTER

2022 Volume XXVII Issue 1

CRFG-LA meetings at Sepulveda Garden Center are currently suspended. We hope everyone is staying safe and healthy.

CRFG Annual Scion Exchange

Saturday, January 22, 10:00 am

Location: Private Residence near Sepulveda Gardens

(address to be provided a few days before the event)

Our annual scion exchange will take place in person!! It will be a grafting demo/scion exchange for L.A Chapter members only, please. Bring plant materials to share (seeds, cuttings, scions, etc.) PLEASE DO NOT BRING SCIONS FROM PATENTED TREES. NO CITRUS PLEASE! (Help prevent the spread of Citrus Greening Disease.) PLEASE LABEL YOUR SCIONS CLEARLY with fruit type and variety.

- Scions should be 1/4" - 3/8" diameter (pencil size) and contain several buds (2 -3 minimum).
- Bundle by variety in a moist paper towel(s) and place in a ziplock-type bag, leaving a slight opening in the bag for the wood to breathe. The towel(s) should stay damp while the wood is stored.
- Label each bag with fruit variety, as well as any additional information you feel is pertinent (i.e. minimum chilling hours; pollinator needs; vigor; where successfully grown, etc).
- Please include your name on the scion bags, in case people have questions.
- Keep scion bag in vegetable bin of your refrigerator until the morning of the exchange. Be careful not to let the scion wood freeze!
- At the event, please wait to make your selections until directed.
- Please limit your selections to two of any variety, until everyone has had an opportunity. Then feel free to go back for more!

2022 Chapter Officers & Committees

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ZOOM MEETING:

Saturday, February 26, 10:00 am

Speaker: Dr. Jonathan Crane

Topic: Lychees

The L.A. Chapter of CRFG is excited to welcome Dr. Jonathan Crane as he shares his insights about this rare fruit. Dr. Crane is a specialist in tropical and sub-tropical food crops and has more than thirty years of experience with production systems for these kinds of crops. He will be discussing the locations, cultivars, issues, and cultural practices to favor flowering and fruiting, and the threat from the lychee erinose mite. He currently works at the Tropical Research and Education Center at the University of Florida.

Save the date!

CALENDAR FOR LA CHAPTER 2022

March 25	The Tony Stewart Memorial Tree Symposium, Sylmar HS
April 23	Garden Tour: Aura Carmi
May 21	Garden Tour: La Verne Nursery
June 25	CRFG Annual Plant Sale
July 23	Garden Tour: Conejo Valley Botanic Gardens
August	No Meeting - Fruit Festival
September 24	To be announced
October 22	To be announced
November 19	To be announced
December 10	Holiday Party

Words From Our Chairman

The Chairman's column is going on hiatus for a while.

LOOKING BACK

By Deborah Oisboid, Editor

November 20 - Jujubes

At our November meeting we met (via Zoom) Dr. Shengrui Yao, an expert in horticulture and pomology, who is studying growth habits of jujubes in New Mexico. She introduced us to the jujube and its fascinating botanical quirks.

Jujubes are sometimes called "Chinese dates" because they are approximately the same size and shape. That's where the similarity ends. Jujube trees are in the buckthorn family, and have multi-branched trunks with thorny joints and compound leaves. Although there are over 800 jujube varieties in their homeland Asia, only about 100 cultivars are grown in the United States.

The Chinese jujube (*Ziziphus jujube*) thrives in a temperate climate. There are also Indian jujubes (*Ziziphus mauritiana*), which prefer a tropical climate. And wild jujubes (*Ziziphus spinosa*) can still be found their original growth sites. They are very long-lived trees. The Jujube King tree in China is over 1000 years old and is still producing fruit!

Jujube fruit are a drupe: fruit which develops from the female part of the flower; a fleshy part surrounds a central seed. However, some jujubes have up to 2 seeds, while others have no seeds inside.

Both the seeds and fruit are important in Chinese medicine. About 60% of traditional Chinese prescriptions use some form of dried jujube fruit because of their mediation affects to reduce the toxicity of other herbs.

The fruits can be eaten either fresh or dried (depending on the cultivar). They may be processed for culinary use, drinks, or wine. Jujube wood is very hard, good for instruments or kitchen utensils.

There are four types of growth on a jujube tree:

- Primary = the main structure, scaffold
- Lateral = creates the base of the fruiting structure
- Fruiting spurs = "mother-bearing" shoots, could transform to a primary shoot if stimulated
- Branchlets = fruit-bearing shoots, contain the leaves and fruit.

There are usually thorns/spines at each node. Spines can

be hooked or straight or absent. Dr. Yao has found most nursery plants have the worst/strongest/longest spines. Interestingly enough, the main bud of a fruiting spur can transform into a primary shoot, depending on the cultivar or growth stimulation. Different types of pruning can either stimulate growth or stop it.

Other than pruning the trunks every year, Jujubes do not require much pruning. They do not respond like apples or peaches. Some cultivars branch out well, but others need more trimming to create structure. Young trees need the most attention. Shortening the lateral branches can sometimes stimulate the primary shoot into branching. Branches need to have a strong connection to the main trunk, angling 45 degrees or more away from the main branch. The optimum time to prune jujubes is before they leaf out.

Jujubes can be propagated from root suckers - if the mother tree was not itself from a root sucker. (Otherwise you get a wild tree instead of a known variety.) Grafting is widely done by nurseries, using wild jujubes as rootstock. Jujubes can use many different grafting methods: cleft, bark, and whip-and-tongue grafting. Dr. Yao is also working with a nursery in Oregon, providing cultivars for tissue propagation, but that has been less successful so far.

There are many cultivars, but almost no hybrids due to the tiny size of the flowers. Jujube flowers are good nectar plants for pollinators/bees.

Standard fruit trees, such as apple and cherry, put out flower buds one year, and those buds mature into fruit the following year. Jujubes grow flower buds, bloom, set fruit, and ripen all in one growing season. Their flowers only bloom for one day, but the tree can remain in bloom for up to 2 months.

Once the tree leafs out, a shoot can contain branchlets, flowers, and fruit all at the same time. This can create nutrient competition within the tree itself.

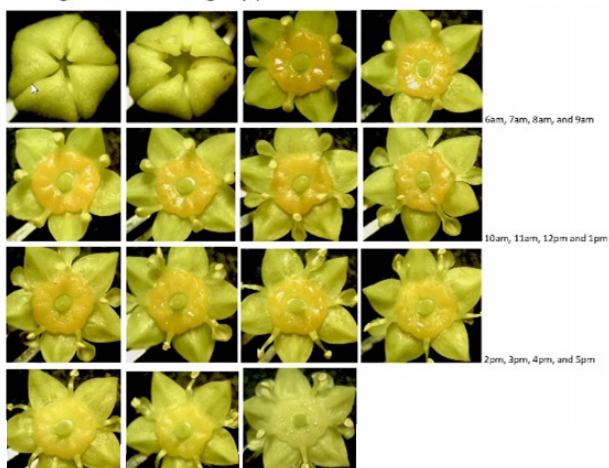
The inflorescence of a jujube tree has the flowers arranged in a "definite inflorescence," or cymose pattern. The cluster of flowers looks like a branching tree. The cluster grows primary flowers (from the main part of a stem) and secondary and tertiary flowers branching away to either side. The latest/youngest flowers often do not grow fruit. Depending on the cultivar, there can be one flower, 4 flowers, or even 10 flowers in an inflorescence.

Flowers show up about the same time as leaves start to open. The Lang cultivar is a morning bloomer. The Li cultivar is an afternoon bloomer, with flowers typically opening after lunch.

The "flower" we see is actually the sepals (bud covers) folded open. True petals, which open later in the day, are much tinier, and are located between the sepals. The yellow center is full of nectar. The center also contains the female ovary, which produces the jujube fruit. When it is finished blooming, each flower female part is almost completely separated from the sepals/honey.

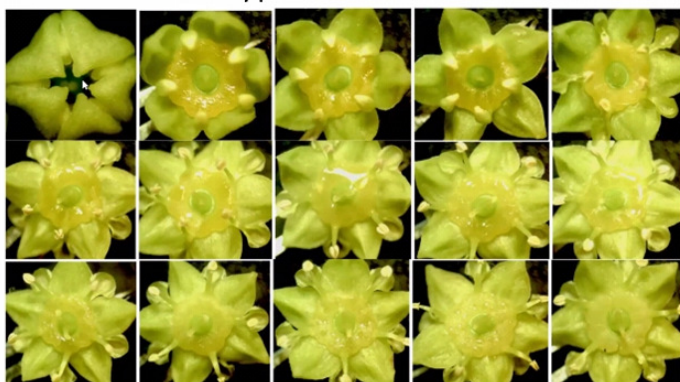
Blooming process:

'Lang' - morning type



Photos (c) Dr. Shengrui Yao

'Li' - afternoon type



Dr. Yao's main interest is the wide adaptability of the trees. Did you know jujubes can grow in Tibet? The trees can tolerate a wide range of soil and weather conditions, including heat and drought. Jujubes are precocious and long-lived. They are winter hardy in her test-growing areas of New Mexico, which can get as cold as -20F.

Dr. Yao has three cultivar trials under way in New Mexico right now. The three trials have slightly different planting densities, and contain about 17 different fresh-eating jujube cultivars. The Los Lunas site (USDA zone 7a) has slightly better soil than the ones at Alcalde (USDA zone 6a) or Leyendecker (USDA Zone 8z), while Alcalde is the warmest of the three sites.

In the trials, fruit set was dependent on many things: the

cultivar, the weather, cross pollination, insect activity, nutrient competition, cultural management, and so on. Fortunately, jujubes attract multiple types of insects, not just honeybees.

When there was no killing frost, the fruit would hang on the trees a long time. Dried fruit, which are yellower in color, are less mature. Southern fruit typically were a richer color because they had more time to mature in a season.

Comparing the three test sites, there was a distinct difference in productivity from north to south. In general, for the same cultivars, the fruit were larger and the trees more productive in the southern trial area. They also had higher soluble solids (sugars) than those grown in the northern sites. Dr. Yao expects jujube fruit grown in California to grow bigger than those in New Mexico.

The trials have been running for a few years so far. The intention is to run trials for 10 years, to average out extremes.

Some of other the observations Dr. Yao told us about:

- Of the fresh-eating cultivars, Dongzao had the best fresh-eating quality of the collection.
- Honeyjar, Maya/Gaga and Russian #2 had excellent fruit quality, were productive but smaller size, very suitable for home gardeners.
- Kongfucui (KFC), Li/Shanxi Li/Redland/Daguazao/Dabailing were very productive with large fruit.
- Alcalde #1 was earliest producer, with big fruit, although the tree itself was relatively small compared to others. She thinks this variety would be suitable for marginal regions. It was not as productive in the trials, but she's not sure how it would perform in California.
- KFC and Sherwood can be eaten both fresh and dry.
- Of the drying/multipurpose cultivars, Jinsi #2, Jinsi #4, Pitless, and Huizao had smaller trees, while Sihong and Jinkuiwang were bigger trees.
- Xingguanb and Globe varieties are good as dry fruit only (not fresh eating).

Although testing has not yet concluded, Dr. Yao's team has so far observed that jujubes in general do best with a 50F/10C average annual temperature. Tree height appears to be weather-dependent, but extended testing will confirm that. Fruit grow bigger and sweeter in the south (warmer, longer growing season).

Dr. Yao noted that the USDA hardiness zone scale is not appropriate for planting jujube trees, because the scale is based on minimal winter temperature. Jujubes are more

dependent on heat accumulation, especially for fruit quality. Southern California growers have the advantage of a long growing season: we can grow almost any variety we like! We also have more marketing outlets and a higher Asian population, so there are more choices.

If you know a good nursery who wants to collaborate with her, please let her know! (Contact me at editor@crfg-la.org and I will forward your information to her.)

Questions and answers!

- Do jujubes have a chilling requirement? No, they grow in both Florida and Phoenix/Arizona. There is no real chill requirement.
- Can it be grown in a small pot so it doesn't get large? Yes, for a couple of years it should be ok.
- Are jujubes ok with high winds? Young trees need staking but older trees should be stable enough.
- What's your favorite flavor of jujube? Dr. Yao likes Dongzao the best, but notes that once you get used to one flavor, you might find the others aren't as delicious.
- How close can jujube trees be planted together? At the test sites, the closest is 8 ft between plants. If you trim them smaller, you can probably grow them closer.
- Can you graft Indian variety to Chinese variety? Yes you can. However the trick is maintaining the grafts, as some are more vigorous than others. You have to be careful when pruning, to even out the growth.

So much to learn! We really appreciate the time Dr. Yao spent with us, and all the amazing information she provided. Thank you very much!

December 11 – End of year holiday party

Happy holidays! Our December party was a wonderful success. About 30+ people attended at the Conejo Botanical Gardens, outdoors under blue sky sunshine. The tents and festive decorations were generously provided by Kathleen & Son. There were beautiful decorations, wonderful music, delicious foods, and HOT coffee. Margaret brought some of her jaboticaba fruit (ripe and sweet), and Emory brought a tray of tree strawberries (flavorful and almost crunchy).

Before we ate, Candace introduced us to some interesting gardening concepts:

- Use a grapefruit spoon with serrated edges to scoop fruit out of skins, removing membranes from the insides of fruit, or pulling pits out of peaches or avocados, and even to remove the top from a pineapple.
- The tops from spray cans have a tiny hole in them which

could be used for drainage, and could make ideal seed starters.

- If you are planting sapote, make sure scions are fresh. Also, graft any scions the day you receive them.
- Scrub the flesh from sapote seeds until they're squeaky clean, and soak them in water (changing daily). They will split open and sprout for you in a couple of days.
- December is already too late for loquat grafting - most of the trees are already in flower. However, December is the perfect month to graft mulberries.

Candace also brought scions of her Tropical Peach (a very early bloomer), a bag of Gloriosa daisy seeds, and fresh bay leaves to share.

Lunch was splendid! A potluck feast suitable to the celebration. And there was lovely music, courtesy of Anwar's Bose setup. The decorations were wonderfully festive: red and white tablecloths, tulle curtains covered with snowflakes, pillars supporting beautiful poinsettia-filled flowerpots, scented cedar branches.

We had a White Elephant gift exchange and a surprisingly large plant sale, which included many banana pups, over half a dozen DIFFERENT varieties of coffee plants, a few drought tolerant plants and cactus, a pair of lovely large loquat saplings, and a mulberry seedling.

It was wonderful to see so many good friends in person, and the outdoor setting was just lovely. Happy New Year, everyone!

Classifieds

OFFER: Iron Chelate Fe 138 can mitigate the effects of iron chlorosis in plants. Roy Imazu is offering members one cup increments of Iron Chelate. Pricing is at the buyer's discretion and 100% of the proceeds from any sale will be donated to the CRFG-LA Chapter treasury. For information or to purchase some chelate, contact editor@crfg-la.org.



WANTED: Your gardens and ideas. CRFG-LA's Program Chair Anwar Hashash is looking for a few good events. Would you be interested in sharing your garden for a tour in 2022? (Zoom or in person.) Do you know of any places to visit? Experts to teach us? Let him know! program@crfg-la.org