

COLLIER FRUIT GROWERS NEWSLETTER

FEBRUARY 2019



Steve Cucura of Fruitscapes Nursery on Pine Island will be the February 19th speaker. He is the vendor for our semi-annual fruit tree sales at Freedom Park. His Nursery is highlighted as the 'American Made' winner in the June 2016 issue of 'Martha Stewart Living' magazine. The nursery has also received many other accolades as the 'best' nursery in South Florida.

With a wide selection of warm weather fruits and organic vegetables under the chickee hut and fruit trees in the orchard, a day trip to the nursery is well worth it. There are often hot prepared foods and bake goods available for purchase.

Steve will give a belief synopsis of his recent trip to Bolivia. In preparation of the upcoming Fruit Tree Sale on Saturday, February 23rd, he will also present an overview of the 'best' fruit trees suitable for growing in Southwest Florida.

Meeting: TUESDAY, February 19th.

The tasting table starts at 7:00 pm. The meeting starts at 7:30 pm at the Tree of Life Church, Life Center, 2132 Shadowlawn Dr.



BURDS' NEST OF INFORMATION THIS and THAT FOR FEBRUARY

There is still time early to mid February to prune back the peaches, nectarines, grapes and plums. The classic pruning for peaches and nectarines resembles an OPEN UPSIDE DOWN umbrella. Try to trim out the center to allow sunlight. That will create more evenly sized fruit.

MANGOS: Don't worry, mangos are still working on pushing flowers, flowering can happen as late as the end of March. You can fertilize now, even without the flowers. It won't hurt and probably will help.

0-0-18 is recommended, same amount as your other fruit trees however less is better than more, though, potash can't burn the leaves. Feather the fertilizer starting from half way OUT from the trunk, out to and even a wee bit beyond the trip line. NEVER THROW FERTIZER AGAINST THE TRUNK of any tree.

CITRUS: Citrus trees are pushing new growth. The Asian citrus phyllid calls this PARTY TIME. Let's be party poopers and eliminate them by spraying with a mixture of Farm Soap: 1oz per gallon together with minor elements (vitamins for the tree). Follow directions on the bottle. Spray early in the morning or late afternoon. Ten days to 2 weeks later, spray again, EXCEPT 1/2 oz per gallon of the Farm Soap and same amount of the Minor Elements. Safer Soap is OK if you don't have the Farm Soap.

Why is this done? It is done to repel the phyllids and feed the tree through the leaves. Think about fertilizing the citrus. 8-2-8 or 10-2-10 is what we like to use. Many of the citrus trees are already in flower. Again, don't fertilize heavily, too much nitrogen will burn the leaves.

*** 0-0-18 does not lose its potency once the bag is opened, BUT, 8-2-8 or 10-2-10 does deteriorate - close the bag well, if you have had an open bag for more than a year, put that fertilizer on your bananas and buy a new bag for the citrus etc. Avocados - peaches, nectarines plums and grapes use the same citrus fertilizer.



FEBRUARY FRUIT TREE SALE: SATURDAY, FEBRUARY 23, 2019

RECIPE OF THE MONTH:

Mamey is often used in desserts, smoothies and shakes but rarely as an ingredient in entrees. Here is an entree recipe from the Tropical Fruit Growers of South Florida's website, www.tropicalfruitgrowers.com. The recipe calls for Pernod or anise flavored liqueur but feel free to omit it or substitute a flavoring of your liking.



recipe: Mamey Glazed and Spiced Chicken

1 c. Mamey

1/4 c dry white wine

¼ c. water

1 T/ Pernod or anise flavored liqueur

¼ t. ground cinnamon Pinch ground cloves

Pinch ground nutmeg

4 6oz. chicken breasts

2 T/ olive oil

2 cloves garlic

1 t/ salt

½ t. pepper

4 sprigs fresh mint

To Prepare the glaze:

In a small bowl of a food processor, pulse together the Mamey, wine, water and Pernod. Add in the dry spices and set aside.

To prepare the chicken:

Season the chicken with salt and pepper. In a large skillet heat the olive oil over medium high heat. Add the chicken breasts and cook until browned on the bottom, about 3 minutes. Turn the chicken and scatter the garlic in the pan. Pour the Mamey mixture into the pan, cover and simmer over medium heat until the chicken is cooked through.

To serve:

Transfer chicken to plates and spoon the sauce over the top. Garnish with fresh mint.

Serves 4

Rooting Lychee Cuttings, Under Mist By: Crafton Clift

In 1979, Rare Fruit Council International (Miami) had an assigned area at the USDA, SHRU, Miami where we could put air-layers on the Samoan breadfruit in our greenhouse, root cuttings of Carissa macrocarpa under intermittent mist, or have grafting classes that lasted two months.

One day, Dr. Robert Knight gave me some newly received lychee plants that I was eager to multiply. I gave cuttings to Rita O'Hearn and asked her to 'wound' them and put them under mist. I expected her to nick the bark at the base of the cuttings, but Rita didn't understand what I meant by 'wounding' and she made a crisscross cut in the base.

Seeing the callous form and the roots form that were 'plugged into the plumbing system' of the xylem was a new discovery for me and I wrote about it in our newsletter that circulated to members in Australia, Venezuela and Tennessee.

A year later, Dr. Rodney Catton was visiting from Australia and I was trying to explain this new method of 'wounding' cuttings, when he interrupted saying, "Oh yes, in Australia we call that the O'Hearn method of 'wounding' cuttings."

In August 2015, Rita came across an account of this experiment, reprinted below:

"The purpose of this experiment was to see if the litchi cuttings would root under mist.

Using the tips of the litchi cuttings, we planned to experiment using rootone, gibberellic acid and tips with nothing added. First, we cut the tips from the branches and made a cross (+) cut on the bottom of each tip. To one group we added rootone, another gibberellic acid and to the other nothing was added. The tips were placed in three flats with peat and perlite, and labeled according to the additive.

The experiment was started on September 27, 1979 and on April 12, 1980 we counted our successes and failures, with the following results:

23 with rootone resulted in: 5 rooted, 18 did not [i.e., 21.7% rooted]
14 with gibberellic acid resulted in: 4 rooted, 10 did not [i.e., 28.6% rooted]
28 with nothing added resulted in: 12 rooted, 16 did not [i.e., 42.9% rooted]"



When Mangoes Reached Egypt? By Crafton Clift

Dr. Robert J. Knight, Jr. in his article, 'Report on the Egyptian Mango Industry' (Florida Agriculture Experiment Station, Journal Series No. N-01179) wrote:

"This report presents information collected August and September 1994 by a team of mango specialists visiting Egypt. The mango (Mangifera indica L.) industry there is reported to be founded on budded trees introduced from Bombay, India in 1823, and most mangos in Egypt are said to be of Indian origin (El Tomy 1953).

This latter statement, however, may be debatable. Certainly, enough time has passed since the crop was introduced to permit a tradition of cultural methods to develop in Egypt, and to permit development of a large number of common (Baladi) seedlings of diverse types. If in fact all the germplasm of this crop in Egypt was brought from India, the plant material introduced was quite distinct from the Indian mangos taken to most parts of the world. Egyptian mangos are polyembryonic, in contrast to most Indian cultivars, and their predominant external color a grayish-green considered unappealing in many markets (Knight 1993) (1) is different from the clear or sometimes blushed yellow that is common to many Indian cultivars. Most Egyptian cultivars and many Balali seedlings bear fruit that is low in fiber. Most are sweet with a strong spicy flavor, and those which bring the best market prices have a pronounced, appealing

All of Indian's popular mango cultivars are monoembryonic. If in fact the germplasm that gave rise to today's Egyptian mango cultivars was introduced from India, it could have come from the southern coastal region, where polyembryonic types are known (Singh 1960). (2) Another possible source is coastal East Africa and Kenya, where mangos distinct from those of India, many polyembryonic, have long been grown (Wheatley 1956) and this possibly merits further investigation.'

Dr. Knight tries hard to reconcile polyembryonic Egyptian mangos arriving from India in the same century that monoembryonic Indian mangos reached Florida. Rarely are such important introductions a onetime event.

 1 Knight, R. J. Jr. 1993, Evaluation important fruit characters in germplasm. Fruit Var. J 47(1)I 25-30

²Singh, L. B. 1960, The Mango Inter-Science Publishers, New York, 438 p. Illus. Map ³Youla Shawky, email: <u>youla mic@yahoo.com</u> Luxor, Egypt



Check out the photo to the left, which I took in Luxor, Egypt September 2010 on the east bank of the Nile, Luxor Temple, Holy of Holies. These are offerings or taxes carved in stone. In the upper right are two geese, dressed. In the upper middle is a pigeon. (Fifteen-foot tall brick pigeon houses are common in the Egyptian countryside). Under the pigeon is a gourd. (Roasted gourd seeds are still found in markets). Under the gourd are two mangos and under the mangos are six figs. "How do we know they are mangos?" I asked. "The hieroglyphics say mangos," was the reply of the tour guide Youla Shawka. (3) Mangos were in Egypt by 1500 B.C.

Getting to Know the CFG SecretaryMy name is Jennifer Adriaanse and I am a 5th generation Collier County native. I have been married for 9 years and have 7-year-old boy/girl twins. My parents raised me and my two siblings to love the outdoors. As a family, we spent our days either in the everglades, at the beach, or in the yard gardening and raising animals. Besides the numerous hunting and fishing trips, I also remember helping my dad take care of his many fruit trees: Mulberries, grapefruits, lemons, oranges, and tangerines to name a few. A beautiful vegetable garden full of greens was the focal point of our backyard.

Knowing from where our food comes and keeping it as organic as possible is a big priority for my husband and I. Therefore, we have started a variety of tropical fruits such as mango, mulberry, passion fruit, banana, lychee and papaya on our 2.5 acres of land. When the kids are not feeling well, I make them fresh Moringa tea from the garden. We also raise chickens for eggs and meat. I fertilize my 9 vegetable garden beds with homemade chicken poo tea and use the aged shavings from the coops to fertilize my young trees. I am on a mission to raise my family the way I was raised. Getting my kids away from electronics, into nature, and knowing from where our food comes is important to me.

Epsom Salt

Epsom salt is a popular and well-reputed supplement in organic gardening. With the recent push toward "green" living, Epsom salt is an ideal answer to a variety of organic gardening needs. Both cost effective and gentle on your greenery, Epsom salt is an affordable and green treatment for your well-tended fruit trees, both in pots and in the ground.

One-of-a-kind with a chemical structure unlike any other, Epsom salt (or magnesium sulfate) is one of the most economic and versatile 'salt-like' substances in the world. Epsom salt is intensely rich in these two minerals that are both crucial to healthy plant life. Throughout time, Epsom salt has been known as a wonderful garden supplement, helping to create healthy and vibrant greenery. It has long been considered a planter's "secret" ingredient to a lovely, lush garden, and is such a simple, affordable way to have a dramatic impact on fruit yields. Just as gourmet salt works the ingredients in foot to enhance and bring a meal to its full potential, Epsom salt enhances fertilizer and soil's capabilities to bring a deeper level of vitality to your garden soil's composition.

Magnesium is beneficial to all plants from the beginning of their life, right when the seed begins to sprout. It assists with the process of seed germination, infusing the seed with this important mineral which helps to strengthen the plant cell walls, so that the plant receives essential nutrients. Magnesium also plays a crucial role in photosynthesis by assisting with the production of chlorophyll, used by plants to convert sunlight into food. In addition, it helps the plant to absorb nitrogen, phosphorus and potassium, which are vital fertilizer components from the soil. Magnesium is believed to bring more blooms and therefore larger yields of fruit.

Sulfate is the mineral form of sulfur found in nature, which is equally important to plant life. Sulfate and magnesium are essential to the health and longevity of plants and trees, aiding in the production of chlorophyll, while providing the minerals required for plant nourishment.

Fruit Trees benefit from Epsom salt: Simply work two tablespoons per 9 to 10 square feet into the soil over the root zone three or four times per year.

Fruits Trees in containers: Add one tablespoon of Epsom salt to one gallon of water and apply the surface of the soil once per month.

Annual Fruits: Add one tablespoon of Epsom salt to one gallon of water, then spray the entire plant immediately after transplanting into the ground or individual pot, later when it begins to grow (or after a month or so from transplanting), and lastly when the fruit begins to mature.





Florida Citrus Arboretum

On Monday, January 14, Crafton Clift, Micah Bishop, Carl Peralte, and Rodger Taylor traveled north to visit the Florida Citrus Arboretum. Located in Winter Haven, it was established in 1975. Currently specimens of 242 varieties are represented in the arboretum's collection. It is maintained by the Bureau of Citrus Budwood Registration in the Division of Plant Industry. The arboretum, consisting of 6.5 acres of trees and shrubs, was established for horticultural study, a source of germplasm, and exhibition. It is well worth the trip for anyone interested in Citrus.





Micah, Carl, & Crafton together with Jason Johnson of the Arboretum.

Citrus is unique in that most varieties can be cross pollinated and grafted on to one another. Three of the 'Core' species, Pomelo (*Citrus maxima*), Mandarin Orange (*Citrus reticulata*) and Citron (*Citrus medica*), along with two 'Pure' species Micrantha (*Citrus micrantha*) and Kumquat (*Citrus japonica*), which are 'native' varieties, share in a common very complex floral anatomy. It has been determined that from these five species most commercial varieties/ cultivars are descended. Genomic analysis of most 'native' and hybridized cultivars within the genus *Citrus* suggest that the progenitor of the modern species came from the Himalayan foothills that rapidly expanded, to include approximately ten 'native' species in India, Southeast Asia and Australia.

Citrus varieties, from the pea sized fruit of the Procimequat to the large Citrons, are growing in the arboretum. The Prickly Ash is considered 'native to Florida,' in that its introduction predates human history. The Afraegle is noted for its rock-hard 'shell" and Glycosmis for its short hedge shape appearance. The Microcitrus Papuana has a green elongated bean shape appearance and the Flying Dragon US has seemingly deadly thorns and small berry size fruit. The commonly called White Sapote is actually a citrus.

Asiatic Citrus Canker, is caused by the bacterium *Xanthomonas citri* subsp. citri, is a serious disease that produces necrotic lesions on the fruit, leaves and stems causing unsightly fruit blemishes and premature leave drop. Contact Dr. Doug Caldwell (i.e., Dr. DougBug) at the Collier Extension Office or go the Website http://canker.ifas.ufl.edu for more information.

Citrus Greening or Huanglongbing (HLB), is acknowledged to be the largest problem facing Florida citrus growers. It is caused by the bacterium *Candidatus* lieribacter app., which affects all citrus species. The best minds have been working to abate its advance, but currently there is no solution. Methods to slow its advance include heavy fertilization and tenting/ application of sustained heat for 36 to 48 hours. Visual symptoms are chlorotic 'marbleized' foliage with leaf drop, partitioning with dying of individual branches, and reduction in fruit production, size, & deformity. The lieribacters are spread by the Asian citrus psyllid. Some varieties of citrus are less prone to greening, but all eventually succumb to the disease. Commercial growers are realizing that citrus trees need to be replaced on a ten to fifteen-year cycle in order to maintain yields. One solution may be the development of genetically modified species or cultivars.

There are also many mites, insects, other diseases, scaling, nutritional deficiencies, herbicide toxicities and other disorders that affect citrus. IFAS Extension Publication SP176 'Identification of Mites, Insects, Diseases, Nutritional Symptoms and Disorders on Citrus,' written by Stephen H. Futch is a handy pocket size field guide which all persons growing citrus should refer to frequently.

Daniel Blank suggested the following remedies for the amateur gardener in reducing the effects of <u>Citrus Greening</u> when he spoke at the Collier Fruit Growers Meeting January 15:

- Heavily fertilize and mulch under the citrus trees. Use sulfur-based fertilizers; avoid using 'cheap' fertilizers which contain oxides. Use a well-balanced Palm Fertilizer, rich in micro-nutrients. Triple the amount manganese and make sure to add boron at the recommended rate (See IFAC Publications).
- Spread granular elemental sulfur 2 to 3 times per year to reduce the soils pH to near 6.0. The recommended amounts can be obtained on the internet.
- OMRI-Approved fertilizers can be obtained affordably from 7 Springs Farm, https://www.7springs.com They are a supplier of organic approved (OMRI) products for commercial growers and homeowners as well.
- Be aware of the specific citrus rootstock used. Those that appear to be more tolerant and ones which growers are using in new plantings are US-942 & US-897 (dwarfing rootstock), which were highly recommended by Daniel.
- Cover young trees in fine netting for the first three years to avoid them from being infected by the Asian citrus psyllid. Specially made nets equipped with a resealable opening and tie, for around the trunk, are available from The Tree Defender at a reasonable price, Tel No. 863-439-2877, https://www.thetreedefender.com
- Sugar Bells, Navel Oranges and W-Murcotts are some of the most tolerant cultivars to greening. Avoid other varieties of oranges and grapefruit.
- Water trees faithfully year-round, but most importantly March through June until the rainy season begins.

Costa Rica Tropical Fruit Tour July 27 - August 3

There is time to still register for this fascinating custom Natural History and Fruit Tour to Costa Rica, organized by Charlie Stading of 'Explorations. Designed specifically for tropical fruit enthusiasts, gardeners, and nature lovers the tour highlights the beauty of Costa Rica's botanical diversity. The tour with be escorted by a local English-speaking guide and the use of private transportation allowing for short stop and flexibility in the schedule. Interested persons should view the detailed itinerary on the Collier Fruit Growers website [CollierFruit.org] or contact Charlie at: Carlie@GoExploring.com

This tour is a great opportunity for education, we will have private tours and workshops at four preeminent botanical facilities in Costa Rica.

* **EARTH University**, a private, non-profit university where we have one and a half days to explore and learn. In addition to workshops on their 990-acre campus, we will visit their plantations and Ethnobotanical Garden to learn about different plant properties and their medicinal use by locals. We will also hike in their forest reserve that encompasses 2,471 acres of primary and secondary forest for preservation of biodiversity, research, and student learning opportunities. On the 1.2-mile trail hike, one may see a diverse selection of flora and fauna, including three of the four types of monkeys found in Costa Rica, 152 species of birds, ancient almond trees, various insects, tropical flowering plants, and more.

* CATIE Tropical Agriculture Center, a research center with 2,500 acres where we have all day for touring and learning. It features thousands of plant species from all over and the grounds include a botanical garden, which boasts more than 4,400 genetic samples. In addition

to tropical fruit tastings, we will visit their Germplasm Banks and Forest Seed Bank.

* Lankester Gardens, where we have a half day to tour this world-famous garden. The 27 acres of grounds contain trails and impressive display of more than 3,000 unique plant varieties in the gardens, including rare orchid species that most people will never see in their lifetimes. A research center for the University of Costa Rica, the gardens feature bromeliads, palms and cacti growing amid secondary pre-montane forest, and many visitors come to Lankester to view the

more than 1000 orchid species.

* Atlantic Rainforest Aerial Tram founded by Dr. Donald Perry on the Eastern flank of Braulio Carrillo National Park in a private reserve. An open gondola goes up to 170 feet off the ground with up to four passengers and a naturalist guide. An immersive nature experience over the forest canopy, it is the longest and only guided tram in the country. The tour also includes a guided trail walk, and visits to the Butterfly Garden, the Orchid Garden, and Terrarium housing amphibians and reptile species.

The accommodations have been specifically chosen for their lush landscaping and surrounding nature, are destinations themselves.

- * **Hotel Buena Vista** is a beautiful Spanish-colonial style resort and only hotel in the area atop a mountain with a 360° panoramic view of 3 volcanoes; Poas, Barva and Irazú. The hotel grounds have extensive tropical gardens including many fruit trees. It even has its own nature walk/coffee trail.
- * Casa Turire a small, upscale hotel is built in the style of a hacienda. Located in the heart of the verdant Turrialba agricultural region with lush grounds, this beautiful place is bordered by La Angostura Lake.
- * **Rio Perlas Resort and Spa** is located on 270 acres of forest in the beautiful and verdant Orosí Valley. Built with colonial-style architecture, the rooms are spread out, offering nature and tranquility. At the intersection of Rio Perlas and Rio Navarro rivers, the resort is known as one of the most beautiful rainforest and mountain hotels in Costa Rica and is surrounded by an abundance of forest views. Numerous hiking trails with waterfalls are within the hotel grounds.

The group size is limited to the first 20 people to reserve and there are currently spaces left. Besides being a fun and educational experience, the tour is also a fundraising opportunity for your choice of nonprofit organization as a portion of the trip price includes a donation.

Starting and ending in San Jose, Costa Rica, the trip cost is \$1,800 per person in double occupancy. A single supplement is an additional \$450.

FEBRUARY CALENDAR OF EVENTS

- Tuesday 5 Monthly Meeting: **Caloosa Rare Fruit Exchange**, 7:00 pm, Fort Myers-Lee County Garden Council Bldg., 2166 Virginia Ave., Fort Myers.
- Tuesday 12 Monthly Meeting: **Bonita Springs Tropical Fruit Club**, 6:45 PM Tasting Table, 7:15 PM Program: First United Methodist Church, Fellowship Hall, 27690 Shriver Ave., Bonita Springs.
- Tuesday 19 Monthly Meeting: **Collier Fruit Growers**, 7:00 PM Social, 7:30 PM Program: Tree of Life Church, Life Center, 2132 Shadowlawn Drive, Naples. The speaker will be Steve Cucuca, Fruitscapes.
- Saturday 23 **Collier Fruit Growers' Fall FRUIT TREE SALE**, 9:00 AM to 3:00 PM, at Freedom Park, 1515 Golden Gate Parkway, Naples. -- Come early for the best selection of trees. This is the Organization's semi-annual fund raiser.
- Tuesday 26 Monthly Workshop: **Bonita Springs Tropical Fruit Club,** 6:45 PM: First United Methodist Church, Fellowship Hall, 27690 Shriver Ave., Bonita Springs.
- Saturday & Sunday, March 2 & 3 Fruit and Spice Park Asian Festival, 10:00 AM Sat. to 5:00 PM Sun., 24801 SW 187th Ave, Homestead, Admission \$12.



Fruits which Ripen in February:

Avocado, banana, black sapote, canistel, carambola, citrus, coconut, guava, jackfruit, macadamia nut, mamey sapote, papaya and sapodilla, strawberries, and annual fruits.





There's a **NEW** Collier Fruit Growers Facebook page: https://www.facebook.com/CollierFruitGrowers/?ref=br rs

CFG Members are encouraged to submit fruit related articles on the page. Your comments are also encouraged. Please LIKE and share our page with your friends. Be sure to LIKE our new page!

Upcoming Meeting Date: <u>TUESDAY</u>, March 19th, April 16th, and May 21st

The Collier Fruit Growers Inc. (CFG) is an active organization dedicated to inform, educate and advise its members as well as the public, as to the propagation of the many varieties of fruits that can be grown in Collier County. The CFG is also actively engaged in the distribution of the many commonly grown fruits, as well as the rare tropical and subtropical fruits grown throughout the world. CFG encourages its members to extend their cultivation by providing a basis for researching and producing new cultivars and hybrids, whenever possible. CFG functions without regard to race, color or national origin.

REMEMBER TO RENEW YOUR MEMBERSHIP!

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