



COLLIER FRUIT GROWERS NEWSLETTER

JUNE 2018



Josh Cohen was born in Staten Island, NY. His Parents had a love for the outdoors and horses. In 1988 his parents moved to NJ and bought a thoroughbred horse farm specializing in breeding, racing and boarding track layovers. He began working on the farm and also the backside of the racetrack. This was a precursor to his work today out in his groves.

Josh's wife Amber came from a 4th generation farming family here in Southwest Florida so their Lychee grove and farming was very natural for both of them to take on. They have three children who have been a part of this adventure from the start. We enjoy the dynamic way of family farming and instilling hard work values within their children. He is also a Sales Executive with a Technology company out of Santa Barbara, California. However, Josh's long-term goal is to own and manage more acres of tropical fruit, continuing to share and educate the American Markets of the wonderful taste and health benefits of Lychees & Longans.

Meeting Date: TUESDAY, JUNE 19th
The tasting table starts at 7:00 pm.
Meeting starts at 7:30 pm.
at the Tree of Life Church, Life Center, 2132 Shadowlawn Drive.

BURDS' NEST OF INFORMATION THIS and THAT FOR JUNE



FERTILIZING IN JUNE: Citrus and Avocados should be fertilized in June - 10-2-10 or 6-4-6 or 8-2-8 plus 0-0-22 WHY the 0-0-22? It helps the fruit to have good flavor. With citrus, it help that the fruit is juicy instead of the dry pithy no juice disappointment that some have experienced.

MANGOS: Have you tasted and loved a new variety of mango? Maybe not commercially available because the key word is research. Why research? Where was it propagated? Is it a seedling? It is not unusual for mangos grown on the east coast of Florida to not taste quite the same when grown here on the west coast. What is the fruiting pattern? Some mangos will have an abundant crop one year and only a sparse crop the next year. Also maybe friends 'rave' about a particular variety, taste, and try, it may not be a wow to your taste buds. The last word is patience; the variety will eventually be commercially available. Then you can buy or graft, if you have grafting skills and it is not patented.

Mango Grafting: Now that the consistent 90's F are here, it's the best time to graft from now to maybe the end of September. Grafting is a skill that has many steps of learning. Different fruit trees have different seasons for grafting to be successful.

RECIPE OF THE MONTH:

Now that summer is here, there are a lot of picnics and parties that require an easy portable dessert. This recipe fits the bill. Beware!!! They are rich, delicious and utterly addictive.

The recipe is from Ina Garten, The Barefoot Contessa. It makes about 20 cupcakes or about 60 mini cupcakes. You can halve the recipe, if needed.

recipe:

INA'S COCONUT CUPCAKES WITH CREAM CHEESE FROSTING

CUPCAKE INGREDIENTS:

3/4 pound (3 sticks) unsalted butter, room temperature
 2 cups sugar
 5 extra-large eggs at room temperature
 1 1/2 teaspoons pure vanilla extract
 1 1/2 teaspoons pure almond extract
 3 cups flour
 1 teaspoon baking powder
 1/2 teaspoon baking soda
 1/2 teaspoon kosher salt
 1 cup buttermilk
 14 ounces sweetened, shredded coconut



FROSTING:

1 pound cream cheese at room temperature
 3/4 pound (3 sticks) unsalted butter, room temperature
 1 teaspoon pure vanilla extract
 1/2 teaspoon pure almond extract
 1 1/2 pounds confectioners' sugar, sifted
 Preheat the oven to 325 degrees F.

In the bowl of an electric mixer fitted with the paddle attachment, cream the butter and sugar on high speed until light and fluffy, about 5 minutes. With the mixer on low speed, add the eggs, 1 at a time, scraping down the bowl after each addition. Add the vanilla and almond extracts and mix well. In a separate bowl, sift together the flour, baking powder, baking soda, and salt. In 3 parts, alternately add the dry ingredients and the buttermilk to the batter, beginning and ending with the dry. Mix until just combined. Fold in 7 ounces of coconut. Line a muffin pan with paper liners. Fill each liner to the top with batter. Bake for 25 to 35 minutes, until the tops are brown and a toothpick comes out clean. (Mini cupcakes take about 20 mins). Allow to cool in the pan for 15 minutes. Remove to a baking rack and cool completely.

Meanwhile, make the frosting. In the bowl of an electric mixer fitted with the paddle attachment, on low speed, cream together the cream cheese, butter, and vanilla and almond extracts. Add the confectioners' sugar and mix until smooth.

Frost the cupcakes and sprinkle with the remaining coconut.

Propagation was recently discussed at the nursery on April 25, 2018:

Mendel was such a pioneer by just planting peas at the monastery and observing what happened with dwarfs.

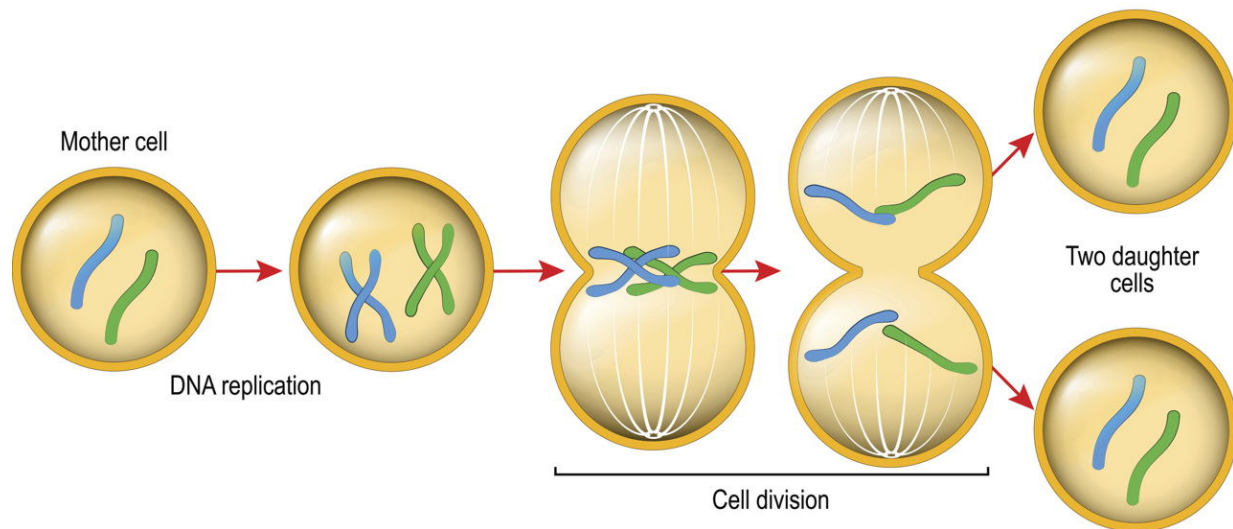
Crafton described the two kinds of cell proliferation as meiosis, that means reproduction or sexual cell division and mitosis, which is growth cell division. A common example of a meiosis cell proliferation is the mule, that is sterile. Why is it sterile? Because the mule has an uneven number of chromosomes which were derived from the mare when it was artificial inseminated by the male donkey. In animals, chromosomes cannot yet be divided and re-added. [There are five women in the United States today who are clones of only their mothers (similar to mangosteens) have no genes from the father.] But when it comes to plants, it's easy to double, or divide the chromosomes.

A "mule" plant, meaning a sterile plant, is one that doesn't make seeds that germinate. A common one would be when you cross a table grape with a Muscadine grape. You know Muscadine grapes are native to the Southeast United States and they have certain special qualities. Table grapes grow all over the world, usually in dry places like Spain, France and California. But in Southern Florida, Muscadine grapes have a natural immunity to Pierce's disease which will kill all the table grapes. That's why we can't grow California table grapes in Florida and the Southeast United States. Dr. Dunstan, at Alachua up near Gainesville, was able to successfully cross table grapes with Muscadine grapes. He had second generation hybrids at a time when a Ph. D. Candidate at the University of California wrote his dissertation on why it couldn't be done. The reason cited in the dissertation was because the chromosome count in the two species is different. Early trials used pollen from the table grape (*Vitis vinifera*) on the muscadine (*V. muscadinia*). Dr. Dunstan grew his vinifera in a screen house to keep it free of Pierce's disease and pollinated it with muscadine. Nature occasionally makes pollen grains with abnormal chromosome counts. For fear of having an uneven number of chromosomes in his hybrids, he treated his seedlings with colchicine to double the chromosomes. If they are doubled they can be divided (thus preventing seedlessness) where he would like to get thousands of offspring to select for desired traits.

Mitosis is the normal cell division where you take one cell with two sets of chromosomes, as it's chromosomes move apart and a cell wall forms in between, and you get the same number of chromosomes in both cells. So, if a cell has 24 chromosomes, each cell will have 24 chromosomes, and they are identical. That is normal mitosis cell division as the plant is growing; not sexual (meiosis) cell division. As a plant continues to grow, the cells just keep dividing and dividing. [Except in humans when you are 80 and your name is Clift, then your telomeres are finished. Your cells only divide so much in a lifetime and they wear out, they don't replace again. No more cell divisions occur.] During the period of normal cell division (mitosis), but before the cell wall forms, if you introduce the proper diluted form of Treflantm together with a minute quantity of DMSO [Dimethyl Sulfoxide (CH₂) SO], it will keep the fiber (cell wall) from forming. [Warning: If you use Treflantm in too high a concentration it will just kill your plant, as it is an herbicide.]

(Continue on the next page)

MITOSIS



**Picture from
Biology Wise.com**

What are the effects of having one big cell without a cell wall?
Instead of the normal amount, you have double the chromosomes.

Then, what are the visual effects?

The plant will usually have thicker leaves and shorter internodes, like patio tomatoes. Some flowers will be double, like hibiscus, adeniums, or day lilies.

Dr. Dunstan used an extract derived from the bulb of the autumn crocus (*Colchicum autumnale*) called colchicine. Nature does things that humans have to learn the hard way, the extract colchicine prevents the cell wall from forming, similar to Treflan[™], and doubles the chromosomes. So, if Dr. Dunstan developed a grape with 48 chromosomes, and he could double it again to get 96. Then coming back to the meiosis stage, he got pollen with 48 chromosomes and eggs with 48 chromosomes, so he could continue his breeding line.

A University of Florida Plant Breeder, with a Ph.D. in plant breeding, to whom Dr. Dunstan (who did not have a Ph. D. in plant breeding) had shared his hybrid table grape/muscadine plant information, wrote an article in the magazine 'Fruit South,' under the title "Grapes Breeding in the South." Apparently out of professional jealousy, Dr. R. T. Dunstan, who made the breakthrough bridging the two different grape species, was not mentioned in the article.

Crafton Clift; DoBee Guava

In 1975, I was working at Fairchild Garden, and every day before I went to the garden I stopped a mile away at the Montgomery Foundation (at the time it was the Fairchild's Nursery). Just outside the door of the greenhouse, on the right, I spotted a species of guava (*Psidium* sp.) that was two feet tall, and about two and a half feet wide. [A lot of people like dwarf trees, where the fruit is easy to harvest, and the trees can be used for shrubbery and so forth.] John Popenoe, the Director of 'the Garden,' lived only a hundred yards away, at the Montgomery Foundation. I considered that all of the fruit trees were his and I didn't pick the fruit or propagate them or have anything to do with them. They just weren't mine. We had a very good collection of Annonas from Africa and South America that the Rare Fruit Counsel had financed. But John Popenoe had assembled them and the only thing I ever did with them, really, is one day I had John go through the collection so I could put labels on them. But I made a big mistake, because I wrote the labels in red ink which only lasted an hour in the sunshine. So, I had to ask John to do it again. But, back to the dwarf guava in front of the nursery of the greenhouse.

I never touched it or even asked where it came from. Other people who were impressed by it when they came to the nursery would ask and John Popenoe would tell them all about it. Once we had a visitor from Malaysia, Borneo, Tony Lamb, a British guy, who had been in Malaysia seemingly forever. Tony came to Fairchild Garden once and John Popenoe was taking him through Montgomery Foundation. John Popenoe has long legs and walked with great strides. I typically would have to run to keep up with John. So, mostly, Tony Lamb lagged behind John Popenoe and stayed with me. So, if John Popenoe would say, "This is the..." [e.g. we had a tree there called some kind of Tamarind that was from Asia], John left me to fill in the cracks because Tony Lamb was not ready to walk so fast. When we came to the greenhouse, even though I was not brave enough to take fruit or seeds from that poor guava, Tony Lamb helped himself to the seeds, and took them back to with him Borneo.

So now, skip about twenty years ahead, Chris Rollins was at Fruit and Spice Park and he would organize annual trips to somewhere in Asia, Philippines or Malaysia. On one 30-day trip in particular to Borneo, Martin Price, the Director of ECHO, found growing, outside a greenhouse, in Malaysia, a dwarf guava, of which he brought seeds back to ECHO. I wasn't aware that this dwarf *Psidium* at ECHO, had come from Malaysia when I got it from ECHO and took it to the Kampong, just a mile away from its starting place at Fairchild Garden - Montgomery Foundation. But now it's legal because it came from ECHO and not from John Popenoe at Montgomery Foundation. Things that people in South Florida brought from Borneo, they tend to call Borneo this or that. Well, it doesn't matter if they collected it from Indonesia or Borneo, there are no guavas native to Asia. All two hundred species of *Psidium* are American, from the warm parts of Central and South America. So, if you bring Indonesian seedless guava or Borneo Red Guava, it is one of the best places on the planet to collect guava because when guavas were taken to Asia, we took good ones. I do know that Martin Price, brought that "dwarf" Borneo Guava from Borneo, where the gene pool wasn't so mixed up as it was in its native America. Anyway, David Hartman had a nursery near Sarasota in the Tampa area, and one also in Michigan. His family was famous for growing blueberries in Michigan. He may have gotten his Borneo Guava from ECHO, as I don't believe he was on that Borneo trip or brought it back himself. David said there was a local lady who came to his nursery, and he let her pick those little guavas to take them home and make a cobbler out of them. The next time he saw her, she said, "It do be good." So, David called that guava as a joke the Dobebe guava. So, if you run across a dwarf guava, going by the name of DoBee, that's how it got its name; the Dobebe Guava.



RESEARCH AT THE NURSERY



Experiments are being conducted to double the number of chromosomes in plant cells. Trifluralin prevents a dividing wall from forming when a cell reproduces while DMSO repairs the existing strands of DNA, thus increasing the amount of the cells' chromosomes. Treating young Mulberry seedlings with Trifluralin and a minute amount of DMSO [Dimethyl Sulfoxide (CH₂) SO] in solution, will force variations in the number of plant chromosomes to occur. Treating seedlings of several varieties of fruit trees will be attempted this summer.

Trifluralin – Treflantm (an herbicide) [Treflantm is a brand name of Dow AgroSciences, LLC]

<http://www.toxipedia.org/display/toxipedia/Trifluralin>

<https://www.hunker.com/12326720/what-is-treflan-herbicide>

DMSO – Dimethyl sulfoxide

<https://www.dmsol.com/PDF/MSDS.pdf>

https://en.wikipedia.org/wiki/Dimethyl_sulfoxide

[https://www.docgriffith.com/single-post/2016/09/14/\"Father-of-DMSO\"-Passes-at-91](https://www.docgriffith.com/single-post/2016/09/14/\)

<http://www.cdms.net/ldat/ld6MU000.pdf>

Note: This method does not employ Genetically Modified Organisms (GMO)

where genetic modification is accomplished by the addition of new strands of DNA in a plant, thereby modifying its genetic make-up. With GMO the DNA of a plant is modified by selected portion(s) of DNA derived from an organism (plant or animal), which is completely non-related to the original plant. [For example, a DNA from a plant (Plant X) that has high resistance to pests can be copied and introduced (added) to another non-related plant (Plant Y), so that, the Plant Y will have the same pest resistant trait.]



Several volunteers are needed who may have adequate space to plant between ten to twenty American Persimmon (*Diospyros virginiana*) seedlings on their property, so that in a year they may be grafted. The American Persimmon is very resilient to flooding for prolonged periods in Southwest Florida, and the successful grafting of many other varieties of persimmon onto this rootstock could be beneficial to local growers.



CFG Members who have successfully rooted Sycamore Fig (*Ficus sycomorus*) cuttings obtained from Dr. Brady after Hurricane Irma are encouraged to air layer seedlings so that they may be used as rootstocks. Most fig trees are susceptible to nematodes to which Sycamore Figs are immune. Therefore, grafting can be used to reduce the potential danger from nematodes.



Note: The Florida Department of Agriculture believes it can eradicate the peach fruit fly in Florida. For more information go to:

https://www.freshfromflorida.com/content/download/80866/2338372/PEST_ALERT_-_Peach_Fruit_Fly_Bactrocera_zonata.pdf

JUNE 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.
- Thursday 7 and 14 **Cornerstone Nursery** – Mango grafting methods as an art form will be the primary topic of discussion, 10:00 AM to noon, 8200 Immokalee Road. (This may be particularly helpful for persons with two-year old, non-grafted mango trees, planted in the ground.)
- Sunday 10 through Tuesday 12 **The Florida State Horticultural Society** will hold its 131st Annual Meeting at the Renaissance, Ft. Lauderdale, Cruise Port Hotel located at 1617 SE 17th Street in Ft. Lauderdale, Florida. For information about the Florida State Horticultural Society, including meeting details, on-line registration and FSHS Membership, is at fshs.org Check out the website to get more details and costs for the events, times and special accommodations. <https://fshs.org/meetings> or Contact: fshs@fshs.org
- 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.
- Saturday 16 **Grafting Tropical Fruit Trees at Fairchild Farm** with Dr. Noris Ledesma, 9 AM to Noon. The three-hour class will be spent in a practical session of the whip and tongue grafting technique; a challenge to master but has one of the highest rate of success. This class takes place at the Fairchild Farm, located in Homestead. Directions will be sent to registered students. Fee: Fairchild Garden Members \$40; Non-members \$55.
- 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.
- Tuesday 26 Monthly Workshop: **Bonita Springs Tropical Fruit Club**, 6:45 PM: First United Methodist Church, Fellowship Hall, 27690 Shriver Ave., Bonita Springs.
- Saturday, July 21 The **Univ. Florida, IFAC Collier County Extension Service will host a fruit tour of three area gardens. More information will be made available at a later date.**

Unusual Fruit News

"If you could eat a banana peel, would you? It is now possible in Japan, where a farmer has invented an organic banana with an edible peel. The Mongee variety is first planted at subzero temperatures, then it's thawed and replanted in a warmer climate, resulting in a lettuce-thin peel. Growers haven't yet figured out how to ship the bananas overseas, so for now, you have to travel to the city of Okayama to try one, a department store there sells the bananas for \$6.00 each!" *

* **Published in the June 2018 issue of Food Network Magazine.**



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 Dates: TUESDAYS,
July 17th and NO MEETING IN AUGUST**

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!

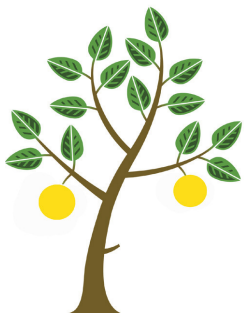
2018 CFG BOARD OF DIRECTORS

DIRECTORS:

President, Rodger Taylor - 239-384-9630
Bonnie Hawkins, Vice President
Melissa Parsons, Treasurer
Jennifer Adriaanse, Secretary

DIRECTORS AT LARGE

Crafton Cliff, Director
David Etzel, Director
Teddy Plaisted, Director
Jorge Sanchez, Director



VISIT US AT:
www.collierfruit.org

