



COLLIER FRUIT GROWERS NEWSLETTER

MARCH 2019

Alex Salazar is a Florida native and a graduate of the University of South Florida. He began studying tropical fruits as a teenager and started farming commercially in 2011. Alex is the owner of Tropical Acres Farms, Inc. in West Palm Beach. He has previous experience farming in Loxahatchee, FL. The farm includes around 300 varieties of mangos under cultivation along with dozens of types of avocados, Sapodilla, and other tropical fruit.



Alex will speak at the March 19th CFG Meeting *on the Sapodilla (Manilkara zapota)*. This is an evergreen fruiting tree of the Sapotaceae family and native to the Yucatán region of Mexico. Since its introduction, it has become one of the most widely found species of fruiting trees in the tropical world and is very popular for its unique, deliciously sweet fruit. With an extended season and many varieties from which to choose, the Sapodilla is a tree well adapted and deserving to be grown in South Florida landscape.

Meeting: TUESDAY, March 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 MARCH

CITRUS AND AVOCADOS

It's time to fertilize citrus and avocados. Choose your favorite 6-4-6 or 8-2-8 or 10-2-10. Check the label to make sure the chlorine content is not more than 4% chlorine because converts to salt. Too much salt (usually found in inexpensive fertilizers) is bad for the fruit trees. Sprinkle the fertilizer out by the drip line where the feeder roots are. When you see the new growth on the citrus, it's time to spray with either Safer Soap or the Farm Soap together with minor elements to kill the psyllids while at the same time FEED the tree through the leaves. Granular fertilizer can take about 4 weeks before it will feed a tree. Resist pruning citrus until after you see that the fruit has set, this way you prune selectively. Pruning before the flowers have set will mean less fruit. Remember to spray your pruning tools with rubbing alcohol or hydrogen peroxide as you go from tree to tree. NEVER use bleach as it will damage your pruning tools.

AVOCADOS

Use the same fertilizer as for citrus. It's normal for avocados to lose their leaves and just have flowers at this time of year. It is also normal that the trees will naturally drop some fruit, if there is a heavy set. Sadly we are seeing more and more avocado trees dying because of the Redbay ambrosia beetle causing Laurel wilt. Avocados are a Redbay relative. One day a dead branch is evident, then another, then after 4-5 weeks it looks as if the tree has been kissed with a blowtorch. The tree should be removed.

Because of the warm winter, many trees this year will not produce abundantly. Lychees and Longans need the low temps to trigger flowering. Persimmons also need a certain number of chill hours (about 45F or below). Mangos need cooler temps to trigger flowering. Some mango trees have set and then promptly aborted their tiny fruit. They might yet flower again. On the other hand, the warm winter temps are loved by Jak Fruit, Soursop and Guavas to name a few.

RECIPE OF THE MONTH:

I found this recipe on www.suwanneerose.com, an excellent blog for Florida living. This decadent pie will be a welcomed addition to any table.

recipe:

Black Sapote & Pecan Tart**Crust**

1 1/2 cups flour
1 stick cold butter cut in small pieces
1/4 cup confectioner's sugar
1/4 teaspoon coarse kosher salt

Filling

2 ripe black sapotes, peeled, seeds removed (about 1 1/2 cups pulp)
5 ounces semisweet chocolate, chopped
1/4 cup brown sugar
1 teaspoon vanilla
pinch of salt
3/4 cup whole raw pecans
whipped cream, for serving

Preheat the oven to 350. Add the crust ingredients to the bowl of a food processor. Pulse about 10 times, or until the mixture becomes coarse crumbles. Using the bottom of a glass or your hands, evenly press the mixture into a tart pan with a removable bottom.

Bake the tart shell for 15 minutes. Allow it to cool.

In a medium bowl, stir together the black sapote pulp, chocolate, brown sugar, vanilla, and salt. Spread into the tart shell. Arrange the pecans on top.

Bake for 20 minutes, or until the edges are golden brown.

Allow it to cool completely before lifting it out of the tart pan. Top with whipped cream before serving.

Persimmon Investigation by Eric Bina

Being very interested in fruit trees, and having lived in Champaign Illinois for years, I've discovered many of the local fruit trees. One of my favorites was a collection of old persimmon trees on the University of Illinois (U of I) Campus. They were originally on an overgrown piece of land not used. In the early 1990s this became the 'University of Illinois Arboretum,' they cut the brush, left the large trees and planted grass. It was now clear that the remaining trees had been planted long ago in rows. Mostly nut trees, but also my favorite row of old persimmon trees.

I have been harvesting these delicious fruit for years, but since 2016 I noticed that the U of I was cutting down a tree or two each year. They've begun to decline in old age and the University felt they were a safety hazard. Here is a picture of my favorite tree:



It is obvious it will be removed soon. So, I plan on collecting scions, and I've ordered some seedling trees as rootstock to eventually try and graft onto. Thus, my project to save my favorite persimmon.

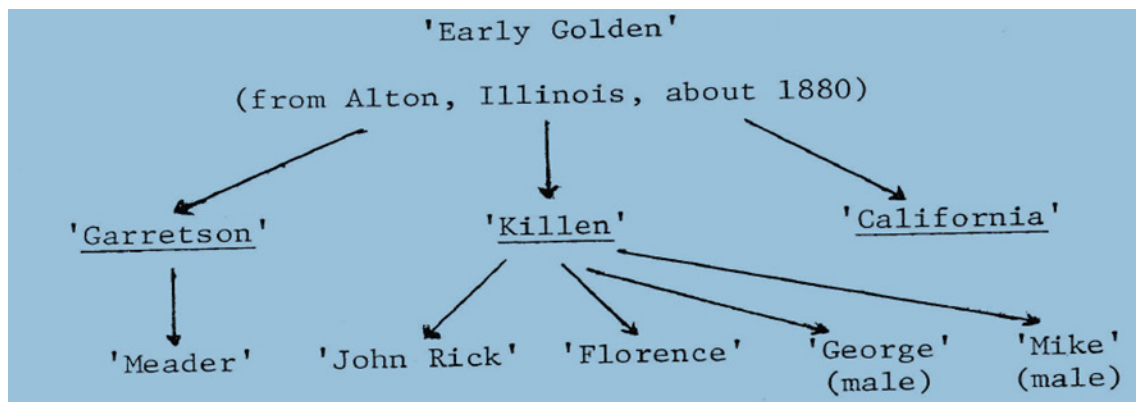
But saving isn't going far enough, I want to know what named variety this tree is. They were obviously once planted in a U of I fruit and nut research plot.

Internet research brings me to J. C. McDaniel, a Professor of Horticulture at U of I from 1950-1974. He is mostly known for his work on magnolias, but he also worked with nut trees, and fruits such as persimmons. While at U of I, the professor was also an active member of the Northern Nut Growers Association (NNGA), of which he was president for a while.

I joined the NNGA and contacted their librarian who allowed me to go through all the yearly reports from 1956 to 1974, where I could read everything J. C. McDaniel said about his persimmon work at the U of I.

From this research I know that as of 1974 the U of I was growing Early Golden, Garretson, Killen, Penland, Owen, Florence, Glidewell, John Rick, Wabash, Craggs, Beavers, Miller, and various selected seedlings. "Florence" and "John Rick" were selected and named at the U of I.

I found this family tree:



At this time, there are less than a dozen trees left standing in that row on the arboretum. Only two have what I would call excellent fruit. What I need is a plot map, which I'm sure Prof. McDaniel must have had.

Enter the internet again. In 1988 Prof. McDaniel's collected papers were donated to the University of Virginia. Here is the description of the collection in their library (<https://ead.lib.virginia.edu/vivaxtf/view?docId=uva-sc/viu01846.xml>). If a plot map exists, that is where it would be. While engaged in this search I also joined the North American Fruit Explorers (NAFEX). I found a member of that group who lives in Virginia and volunteered to check out those papers. I have not heard back from him yet...

Here is some fruit I collected from my favorite tree this year:



An interesting side-note: While on the internet I found the records of a U of I student in 2005 describing several old persimmon trees he had found on campus and trying to locate the variety. I tracked down that student to ask him if he ever found the answer. He had not, but in exchanging notes, it appears his trees are a different set than mine. Following his directions to another U of I wood-lot, I found four of his trees still standing (surrounded by the logs of their 'chain-sawed brethren').



fruit:

[**Editor's Note:** Members who happen to be "Snowbirds" can enjoy growing and harvesting many varieties of American persimmons while they are still North as far as New Hampshire.]

Mango Bacterial Black Spot by Randy Ploetz

Bacterial black spot (BBS) is a destructive leaf, stem and fruit disease in many mango-production areas of the world. In India, the disease is known as bacterial canker because of the cankers it causes on the stems of some cultivars. BBS can be the most important mango disease in areas where those caused by fungi are well managed.

Bacterial black spot (BBS) was first identified on the east coast in Florida in 2015 in the vicinity of Boynton Beach and Lake Worth. Since that report, the disease has spread at least as far as the east coast of Lake Okeechobee and Broward County. The causal bacterium, *Xanthomonas citri* pv. *mangiferaeindicae* (Xcm), spreads easily via windblown rain. Thus, it is probable that BBS will eventually spread to Southwest Florida. In anticipation of its possible spread, the following description of the disease is provided.

Leaves, stems and fruit of mango are reported to be affected by BBS in other regions of the world, although in Florida it has only been observed on the fruit. Star-shaped lesions up to 2 cm in diameter develop initially on the surfaces of fruit of susceptible cultivars (Figure 1). Lesions usually ooze a clear, sticky exudate, and can develop into large star-shaped cavities that extend deep into the fruit flesh (Figure 2). Lesions differ from those caused by anthracnose (Figure 3), which are flat do not extend deep into the flesh of fruit. Both anthracnose and bacterial black spot can occur together on fruit (Figure 4).

Resistance to BBS varies greatly among mango cultivars, and 'Keitt', 'Haden', 'Springfels', and 'Lemon Zest' are among the cultivars that have been affected in Florida. The highest susceptibility to BBS appears to be among descendants of 'Brooks' and 'Haden'. Thus far, good resistance has been observed in descendants of 'Julie'. Non-'Julie' descendants that have BBS resistance include 'Duncan', 'Cac', 'Florigon', and 'Glenn'.

Pathogen-free planting material should be used when new orchards are established. Xcm moves only short distances in wind-blown aerosols (usually within orchards), and long-distance dissemination occurs almost entirely via infected propagation material and less frequently in surface-contaminated seeds. Windbreaks should be used to protect trees/fruit from windblown abrasion, as Xcm infects via wounds.

BBS can be difficult to control on susceptible cultivars, as the available chemicals are only marginally effective. During rainy weather, applications of copper-based bactericides are recommended. Their application should focus on protecting fruit and account for the length of time fruit are exposed to wet (infective) conditions.

Precautions to prevent possible infection include:

- Use local sources of rootstocks and scions that are known to be free of BBS. Make sure nursery stocks have been kept away from mango orchards to minimize possible contamination.
- Select a planting location that is protected from the wind, or establish a good wind break, to avoid the possible spread of BBS. However, the location should be in full sun with adequate air movement so that leaves can dry quickly after rain.
- Spray the trees with copper fungicide (every 2 to 4 weeks), except during flowering when a fungicide containing mancozeb should be used.

If a tree is found to be infected:

- Sprays containing copper can be applied to control BBS. [This disease is very difficult to control chemically once rainy season starts and economically impractical for back yard growers.]
- Regularly remove and destroy any infected twigs, branches and fruit.



Figure 1. BBS lesions on 'Keitt'. Note raised appearance of lesion when compared to the non-raised, flat anthracnose lesions in Figure 3.

Figure 2. BBS lesions on 'Springfels'.

Note the erupted, star-shaped appearance of the older lesion and their progression into the fruit flesh.



Figure 2. BBS lesions on 'Springfels'. Note the erupted, star-shaped appearance of the older lesion and their progression into the fruit flesh.

Figure 4. Fruit affected first by BBS followed by opportunistic development of anthracnose in the areas adjacent to the initial BBS lesions.



[Randy Ploetz is retired from the University of Florida. He is currently preparing an EDIS Publication on Mango Bacterial Black Spot.]

CBD Oil and Cream to Relief Pain by Jorge Sanchez Not Fruit Related, but a Subject of Importance

It's hard to ignore the possibilities that CBD has to offer in terms of health and wellbeing.

While clinical trials continue to be a bit of an obstacle here on US soil, they're still being done, and the results are extremely promising. CBD has been shown to be highly effective in treating pain, therefore people are using CBD products to alleviate pain caused by any number of underlying issues.

CBD can be consumed in any number of forms, including; tinctures, oils, capsules, edibles, topical creams, vapes, and even water. But which format is more effective at treating pain? More specifically, is CBD oil or cream better for pain alleviation?

HOW DOES CBD WORK TO REDUCE PAIN?

CBD - or Cannabidiol - is found in great abundance in the cannabis varieties. Both CBD and THC - another cannabinoid found in high levels in the cannabis plant - have miraculous effects on the body that rival even the most powerful and well-recognized pharmaceuticals.

While THC induces feelings of euphoria and alters the mind, CBD does not possess such psychoactive properties. Both cannabinoids take effect in the body by interacting with the endocannabinoid system (ECS), which is made up of cannabinoid receptors and their associated metabolic enzymes.

The ECS plays an integral role in maintaining homeostasis in the body. When certain processes are out of balance, a disease can ensue, causing pain to be experienced. But by putting the body back into balance, symptoms such as pain can be effectively alleviated.

Cannabinoid receptors of the ECS are throughout the body on the surface of cells, while endocannabinoids interact with and activate these receptors. CBD can mimic the activity of these endocannabinoids that are naturally produced in the body to induce similar effects, such as pain alleviation.

The receptors of the ECS lie on the surface of cells and monitor conditions occurring outside of the cell. They transmit information about any changes in conditions to inside the cell, which initiates a cellular response to deal with these stressors.

When THC is consumed, it binds to CB1 receptors in the brain, which causes users to get 'high,' while still providing certain health benefits. But CBD does not directly bind to these receptors and instead indirectly interacts with the CB2 receptors that are found mainly in the immune system, though they (along with CB1 receptors) are also found throughout the body.

The ECS is directly responsible for regulating specific responses in the body, including pain control, among many others. When CBD is consumed, it takes on the role of endocannabinoids to reduce pain resulting from an imbalance in the body.

The body is encouraged to use both CBD and its naturally-occurring endocannabinoids more efficiently to regulate pain. That's why so many people have already been able to effectively treat their pain without the need for potentially-addictive NSAIDs and opioids.

CBD has the amazing capability of alleviating various levels and types of pain, including arthritis and joint pain, inflammation, muscle spasms, muscle soreness, cramps, tendonitis, and even headaches.

The question is, what's better for pain: CBD oil or topical creams?

WHAT IS CBD OIL?

CBD products come in a variety of formats, including CBD oil. This specific product varies in potency, though it is said that oil formats tend to be more potent than other types of CBD products.

CBD oil can be extracted from both the hemp or marijuana plant, though the latter will typically come with a level of THC that will likely produce some sort of mind-altering effect. Further, marijuana-derived CBD with THC levels over 0.3% is considered illegal on a federal level as well as in many states where marijuana has yet to be legalized.

There are a few different ways to extract CBD oil, though the CO2 extraction method tends to result in the purest CBD oil. This extraction method involves the use of carbon dioxide in an environment of very cold temperatures and high pressure. Such an extraction method not only result in a pure form of CBD oil, but it also tends to come with far fewer solvents and residue that may be left behind with other methods of extraction.

CBD oil can be applied topically on the skin via spray or a roll-on applicator. Via this route, it can be made more effective by exercise and movement to spread the oil in the muscle or joint that is painful helping to decrease inflammation. It also can be taken orally under the tongue and this usually a thicker or more viscous oil using a dropper or syringe, after which it is absorbed through the mucous membranes directly entering the bloodstream without having to go through the digestive system.

WHAT IS CBD CREAM?

Creams are produced with the extracted oils from the hemp or cannabis plant that is then infused into a topical cream base. Like CBD oil, the CBD from creams interacts with the CB2 receptors of the ECS to provide pain-relieving effects.

Creams are applied directly to the site of pain. The cream is rubbed onto the skin, after which the CBD infused in the product is absorbed into the skin to take effect.

WHICH FORMAT IS BETTER FOR PAIN: CBD OIL OR CREAM?

Both CBD oil and cream work quite well for pain relief. Creams can be applied directly to the area where the pain is felt for more targeted pain relief. However, it may take a while longer for the effects to be experienced as the CBD is absorbed into the skin.

CBD oil, on the other hand, may provide slightly faster effects because of its ability to bypass the digestive system and go straight to the cells of the body to take effect. In the meantime, CBD oil may also alleviate any other symptoms that the user may be experiencing, including anxiety, sleep disorders, or poor appetite.

FINAL THOUGHTS

Both CBD oil and cream have shown to have powerful effects on alleviating pain. They each have their own unique benefits, and can both be used to relieve pain, regardless of what the source of the pain may be. Ultimately, the choice between which format to use will depend on the users' specific preferences, as they are both highly effective in reducing pain and many other discomforts. When purchasing these oils, to assure the quality of oils purchased, you can ask the seller to show you a certificate of purity from an independent laboratory that has verified the purity of your oil. This will assure the safety and quality of the product you purchased.

MARCH CALENDAR OF EVENTS



Thursday, February 28, Fairchild Tropical Botanical Garden, **Book Signing**, Spend an exciting evening with Daniel Stone, author of *The Food Explorer*; 6:00 PM Meet and Greet, 7:00 PM Signing, 10901 Old Cutler Road, Coral Gables, Free for Fairchild Members (with valid membership card); \$25 General Admission \$25, VIP \$50.



Friday 1 & 29 UF/ IFAS Extension Collier Co. – **Florida-Friendly Landscaping for Associations Workshop**, Collier County Museum at Government Center, 3331 Tamiami Trail E, Naples

For more information go to: <https://tinyurl.com/yc767qfo>



Saturday & Sunday 2 & 3 Fruit and Spice Park – **Asian Festival**, 10:00 AM Sat. to 5:00 PM Sun., 24801 SW 187th Ave, Homestead, Admission \$12.



Tuesday 5 Monthly Meeting: **Caloosa Rare Fruit Exchange**, 7:00 PM, Fort Myers-Lee County Garden Council Bldg., 2166 Virginia Ave., Fort Myers.



Weekly Workshops: Every Thursday **year around**, 9:00 AM until at least 1:00 PM, **Cornerstone Nursery**, 8200 Immokalee Road, North Naples – Learn about fruit trees, volunteer in the nursery, or just come and listen to Crafton's stories.



Friday, Saturday and Sunday 8, 9, & 10 Fairchild Tropical Botanic Garden - **Orchid Festival**, 9:30 AM to 4:30 PM Daily, 10901 Old Cutler Road, Coral Gables, General Admission \$25.



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. Alex Salazar, owner of Tropical Acres Farm, West Palm Beach will speak about sapodillas.



Tuesday 26 Monthly Workshop: **Bonita Springs Tropical Fruit Club**, 6:45 PM: First United Methodist Church, Fellowship Hall, 27690 Shriver Ave., Bonita Springs.



Friday 29 See Florida Friendly Landscaping for Associations Workshop, above.



Fruits which Ripen in March:

Avocado, banana, Barbados cherry, black sapote, canistel, carambola, citrus, coconut, custard apple (end of season), guava, jaboticaba (early), loquat (end of season), mulberry, miracle fruit, strawberry tree, papaya, pineapple (early) and sapodilla, strawberries, and other annual fruits.

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 Strader 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 will 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 as we will have private tours and workshops at four preeminent botanical facilities: EARTH Univ., CATIE Tropical Agriculture Center, Lankester Gardens, and the Atlantic Rainforest Ariel Tram.

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. There is only a very limited number of places remaining. 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.

Getting to Know the President of the Collier Fruit Growers

Rodger Taylor grew up in Southeastern Pennsylvania tending to fruit trees and rabbits. As a Boy Scout Rodger got the travel bug by participating in the 13th World Scout Jamboree in Japan. As a licensed Profession Engineer, he was part owner of an engineering consulting firm for more than ten years. When the opportunity arose, Rodger chose a career in the Pharmaceutical Industry, which took him to many countries in Europe, Eastern Asia, South America, as well as Australia and the Philippines. Rodger was instrumental in the formation of an Independent Homeowners' Association in quickly developing rural Bucks County, PA to represent the mutual interests of the established residents in local government, and the non-profit 'Friends of the Farmstead, Inc.' (FOF) to preserve a 110-acre farm against pending development. He served as the President of FOF, which in turn was instrumental in the creation of the 'Bucks County Parkland Preservation Trust' to acquire and protect in perpetuity as much open farmland and environmental sensitive areas as possible throughout the County. While working in Ireland, Rodger purchased and rebuilt a pre-famine granite cottage in the Wicklow Mountains near the village of Hollywood, 55 kilometers south of Dublin.

Rodger has been a resident of Naples for over nine years. Currently, he serves on the Board of Directors for the Homeowners' Association where he lives. When he is not attending to his fruit trees or Board activities, Rodger may possibly be found sailing in the Gulf of Mexico.

Upcoming Meeting Date: **TUESDAY,**

April 16th (Dr. Stephen Brady), May 21st (Noris Ledesma), and June 18th

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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