



FRUIT GROWERS OF SOUTHWEST FLORIDA

MAY - JUNE 2024

PUBLISHED BY THE COLLIER FRUIT GROWERS



COLLIER FRUIT GROWERS

**The Collier Fruit Growers Monthly Meetings will be on
Monday, May 20 & June 17, starting at 7:00 pm.
The Greater Naples Fire Rescue Station
14575 Collier Blvd. 34119**

Enter through the east side door of the Administration Building.

Bring tropical fruit or a fruit-based bake item for the tasting table.

Please bring trees, seedlings, plants, or fruits for the raffle. Tickets are \$2.00, three for \$5.00.

Remember: It is time to renew your \$15 annual family membership.



Justine Gibbs will speak at the May 20 Membership Meeting of the Collier Fruit Growers. Justine is an owner of JusTeeny’s Greenies, a family operated, “direct to community,” microgreens farm in Naples, that grows a variety of organic microgreens and herbs. These are then delivered directly to restaurants and consumers. Justine will explain which microgreens are currently available and how they are grown and harvested.

Food is a huge part of healing our bodies. Microgreens are abundantly packed with the same vitamins and minerals that our bodies are made from. When we eat microgreens in their raw form, we get healthy dose of everything our bodies truly need. They are truly real micro-vitamins.



Daniel Blank will address the Collier Fruit Growers at their June 17 Meeting. Daniel uses organic methods on his twenty-acre 12 Seasons Farm in Olga, south of the Caloosahatchee River. Danny is the former farm manager at ECHO in North Fort Meyers. He has a post graduate college degree in Sustainable Agriculture and has taught at Warner College and FGCU.

Danny will again give us a current update of fruit trees for his 2023/24 growing season, and the methods employed to maximize crop yields after Hurricane Ian. Farmers have found that the use of compost and frequent nutrient feedings help offset the effects associated with citrus greening. Danny will have a sampling of his fruits and vegetables for sale at the meeting.

Please consider donating to the Collier Fruit Growers Agricultural, Nutritional, and Wellness program through PayPal™ by clicking the button below:



**The Bonita Springs Tropical Fruit Club will meet on the second and fourth
Saturdays, May 11 & 25, June 8 & 22, at 4:30 pm.**



Bonita Springs Fire Control & Rescue Station

All the meetings are potluck events.

Remember to pay your annual dues in person or online.

Proposed CCPS School Agricultural, Nutritional & Wellness Program

Tim Moshier, Collier County Public School Board Member for District 5, invited the CFG Board Members to the monthly school board meeting on April 8th to discuss plans for a health and nutrition garden school program. Daniela, Rodger, and Michael spoke for the CFG club at the Board Meeting held at the Everglades City School.

After the Board Meeting **Michael Cartamil**, the only teacher with a degree in Agriculture in CCPS, conducted a tour of the school's vegetable gardens and his science classroom where there is a temperature-controlled grow box, and a small demonstration size aquaponics system. Outside, Michael explained that two existing 8-foot diameter tanks and associated piping will be utilized to create a fully viable aquaponic system in the fall 2024 school semester. School Board Member **Tim Moshier** attended the entire tour around the school.

The growing season for annual fruits and vegetables is unique to south Florida, very similar to the typical school year, with the planting of seeds and cuttings in late August until the final harvest in May. Our south Florida climate is also suitable to grow to a wide variety of tropical warm weather fruits.

On Monday, April 15th **Kathleen Morales Perez, BSW** (Public Health Specialist, Southwest Region Family, Youth and Community Sciences, UF/IFAS Extension Family Nutrition Program) attended the April 15th CFG Board Meeting to discuss the next steps required for CFG prepare and submit a formal written plan to the CCPS Board. CFG is very grateful to Kathleen, who is willing to share her time and knowledge to guide us through this process. Kathleen discussed adapting the same program as the Lee County School District, "[Healthy Living Collaboration](#)." Kathleen invited CFG Board Members to the 'School Garden Celebration' in April to meet and connect with all who participated in getting the Lee County Program running with success.

On Thursday, April 25th, Daniela and Rodger went to Island Coast High School in Cape Coral. The school has one of the highest producing gardens in the county, growing approximately 3000 pounds of vegetables this school year alone, for use in the school cafeteria. During this visit, they had a tour through the school's garden supporting facilities. Included were three tanks filled with Tilapia fish that were raised by the students. During this amazing visit, the students and Master Chef served delicious tacos filled with grilled Tilapia and vegetables that they produced.

We believe every child needs knowledge on how to grow and eat healthy in a sustainable manner. Planting a seed in their young minds will help them to grow into healthy, responsible adults.

Let's help our younger generations and get involved. Please consider signing up for future volunteer help. Volunteers needed are for Thursday morning meetings at IFAS, to keep our nursery organized, and numerous opportunities abound including the propagate of fruit trees for the school program as well as the CFG needs. If you are unable to donate time, funds are greatly appreciated by clicking on the "[Donate](#)" button.

One hundred percent of ALL funds donated will go towards the school program.

Kathleen promised to return to future CFG Membership Meetings and to assist in the presentation of the proposed school agricultural program to the CFG members.

A breakfast meeting was held on April 29 with Tim Moshier, School Board Member, further promoting the Ag Program. Mr. Moshier again expressed his enthusiasm and pledged his support for the Program. The next step is to circulate a questionnaire to determine what school gardens and programs currently exist throughout the district.

Note: Another worthy mention is a group of wonderful permaculture people from the Naples Agorist/Permaculture (NAP). Check them out on Facebook, they have monthly Food Forest meetings and Educational forums.

Recipe for Grumichama Jelly:

YIELD: varies on the amount of fruit, TOTAL TIME: approx. 30 minutes

Ingredients:

Bucket full of Grumichamas (can substitute Jaboticabas)

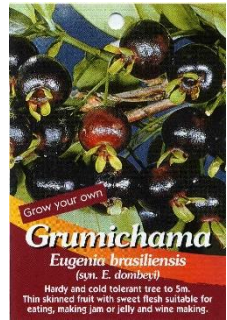
Sugar

Jam setter

Limes

Instructions:

1. Pick all the grumichamas from the trees. Don't worry about removing the stems or the frilly bits on the fruit where the flower was. Wash the fruits, and then put them in a large pot and just cover with water. Bring to the boil and simmer for at least half an hour to an hour. Make sure the water doesn't evaporate. Add more water if you need to, during the process. Once the fruit is really soft, strain the juice.
[Fancy cookbooks tell you to strain it through muslin and leave it to drip for 24 hours and not to squeeze the juice through the muslin. Just ignore this. Do not use muslin, just a strainer. You can mash it and squeeze the fruit to get more juice out if you want - it will mean the final product will be cloudier.]
2. Measure the juice you have recovered - how many capfuls? Then place this juice into a jam pan and add an equal number cups of sugar. Add the juice of a few limes/lemons and cook until the sugar has dissolved. Add the jam setter (amount depends on the quantity of juice) and boil for at least five minutes. Test the jam by placing a drip on a cold plate and when it wrinkles, the jam is cooked. If it does not wrinkle after 10 minutes, add more jam setter.
3. Sterilize the jars and lids before you start in the oven for about 20 minutes. Pour liquid into the hot jars and put lids on as soon as you can.



Recipe for Surinam Cherry and Carambola Jam:

YIELD: 6 cups (3 one-pint canning jars, with bands and lids), TOTAL TIME: 45 minutes

Ingredients:

5 carambolas, to make 3 cups when chopped

1 cup pitted, chopped Surinam cherries (see Note 1)

6 cups sugar

1 cup liquid pectin

Instructions:

1. Wash the carambolas, removing the ends and dark ridges. Chop coarsely; you should have about 3 cups.
2. Sterilize the canning jars and lids by placing them in a large pot of simmering water. Remove the lids and bands once they are hot. Allow the jars to remain in the hot water until needed.
3. In the bowl of a food processor, combine the carambolas and cherries or cranberries. Chop until the carambola is in 3/4-inch pieces.
4. In a large saucepan over low heat, stir the carambola mixture until it sizzles, then add the sugar. Allow the sugar to liquefy, then bring to a boil. Simmer, uncovered, for 15 minutes. Add the pectin, and simmer for another 15 minutes.
5. Pour the fruit mixture into hot, sterile jars. Cap with the bands and lids and allow to cool.

Notes:

1. The Surinam cherry, also known as the 'Brazilian cherry' or pitanga, grows widely in the tropics. In Florida it is considered an evasive species because it propagates so quickly from seed.
2. Approximate nutritional analysis per serving: 50 calories, 0 grams fat, 0 milligrams cholesterol, 3 milligrams sodium, 0 grams protein, 14 grams carbohydrate.
3. Source for recipes: Daleys Fruit Tree Nursery's Bare Root Catalogue website.



Antidesma*, Species; *A. bunius*, *A. dallachyanum* and *A. montanum

Scientific Classification:

Kingdom: Plantae, Phylum: Tracheophytes, Clade: Angiosperms, Clade: Eudicots, Clade: Rosids,
Order: Malpighiales, Family: Phyllanthaceae (Euphorbiaceae), Genus: *Antidesma*.

***Antidesma bunius* Spreng.** (syn: Stilago) is a species of fruit tree native to Southeast Asia and northern Australia. Its common Philippine name and other names include bignay, bugnay or bignai, Chinese-laurel, Queensland-cherry, salamander-tree, wild cherry, and currant tree.

Dr. David Fairchild considered this to be a very valuable tree.

Description:

It is a variable plant which may be short and shrubby or tall and erect, approaching 30 meters (98 feet) in height. It has large oval-shaped leathery evergreen leaves up to about 20 centimeters (8 inches) long and 7 cm (3 in) wide. They are attached to the twigs of the tree with short petioles, creating a dense canopy.

The species is dioecious, with male and female flowers growing on separate trees. The flowers have a strong, somewhat unpleasant scent. The staminate flowers are arranged in small bunches and the pistillate flowers grow on long racemes which will become the long strands of fruit. The fruits are spherical and just under 1 cm (0.4 inches) in size, hanging singly or paired in long, heavy bunches. They are white when immature and gradually turn red, then black.

Each bunch of fruits ripens unevenly, so the fruits in a bunch are all different colors. The skin of the fruit has red juice, while the white pulp has colorless juice. The fruit contains a light-colored seed. The fruit has a sour taste similar to that of the cranberry when immature, and a tart but sweet taste when ripe.

Distribution and habitat:

Found in rainforests and semi-evergreen tropical forests, it is often grown as a backyard fruit tree in Java.

Uses:

The tree is cultivated across the tropics.^[3] The fruits are edible raw and most often used to make jams and jellies as well as wine and tea. At the 1990 Florida State Fair, 'Kampong' antidesma wine, (crafted by Patty Hylands of the Rare Fruit Council International) was awarded "Best of Show." In subsequent competitions, held in the US and England, antidesma wine was consistently rated as top of the berry wines which fooled many connoisseurs into thinking that it was a good 'Bordeaux' or petite sirah wine of some distinction. To a minority of people (approx. 5%) the fruit is bitter.

In Indonesia and the Philippines, leaves are eaten or stewed with rice. The bark is used to make rope, and wood used for timber.

***Antidesma dallachyanum* Baill.** Common name: Herbert River cherry, native to Australia. It is a small to medium dioecious tree. Fruit is used as a tropical substitute for cranberries. Fruits are larger, and the auxiliary fruit clusters ripen more evenly than does the *A. bunius*. Grows well in Florida.

***Antidesma montanum* Blume**, less common in Florida, is also in the family Phyllanthaceae which is native to Southeast Asia, from India to the Philippines. A dioecious tree that can grow up to 10 m (33 ft). The fruits are elliptic drupes which are larger than the fruit of *A. bunius* and *A. dallachyanum*. They ripen later than *A. bunius*. This is the most common, widely distributed species in the genus.

The species was first described by Carl Ludwig Blume in 1827.

Varieties:

As of January 2023 'Plants of the World Online' listed four varieties, each of which has multiple synonyms.

- *Antidesma montanum* var. *microphyllum* (Hemsl.) Petra Hoffm.
- *Antidesma montanum* var. *montanum*, syn. *A. obliquinervium*
- *Antidesma montanum* var. *salicinum* (Ridl.) Petra Hoffm.
- *Antidesma montanum* var. *wallichii* (Tul.) Petra Hoffm.



Ripe bignay fruit

Grumichama - *Eugenia brasiliensis*

Scientific Classification:

Kingdom: Plantae, Phylum: Tracheophytes, Clade: Angiosperms, Clade: Eudicots, Clade: Rosids,
Order: Myrtales, Family: Myrtaceae, Genus: *Eugenia*.

Eugenia brasiliensis

The grumichama is a small, attractive tree that produces a delicious, cherrylike fruit. Indeed, many regard this species as the premier member of the fruit-rich *Eugenia* genus. It is native to the subtropical coastal areas of southern Brazil especially in the states of Parana and Santa Catarina.

Although the fruit is small and is somewhat susceptible to attack by the Caribbean fruit fly, the flavor is outstanding. Has been grown in Florida since 1911. For south Florida residents who yearn for a fruit resembling the northern sweet cherry, the grumichama represents an excellent choice.

Common names:

English: Brazil cherry, Brazilian cherry, grumichama, red-fleshed grumichama, Spanish cherry; Brazil: cumbixaba, grumixama, grumichameira, grumixameira (Portuguese); Czech: hřebíčkovec Brazílský; Danish: Brasiliansk kirsebær; French: bois de Nefle, cerisier du Brésil, jambosier du Brésil; German: Brasilianische Kirschmyrte; Spanish: grumichama, Ppomarosa forastera

Synonyms:

E. dombeyi (Spreng.) Skeels, *Myrtus dombeyi* Spreng., *Stenocalyx brasiliensis* O. Berg; *E. brasiliensis* var. *erythrocarpa* Cambess; *E. brasiliensis* var. *leucocarpa* Cambess; *Stenocalyx brasiliensis* var. *erythrocarpa* (Cambess.) O.Berg; *Stenocalyx brasiliensis* var. *leucocarpa* (Cambess.) O.Berg; *E. bracteolaris* Lam.; *E. filipes* Baill.; *E. ubensis* Cambess.; *Myrtus grumixama* Vell.; *Stenocalyx ubensis* (Cambess.) O.Berg⁸

Relatives:

Cattley guava, *Psidium cattleianum*; guava, *P. guajava*; blue grape, *Myrciaria vexator*; jaboticaba, *Myrciaria* spp.; feijoa *Feijoa sellowiana* and other members of the genus *Eugenia*, which includes more than 30 species with edible fruits.

Description:

Grumichama can be grown as a compact hedge, shrub or small tree in southern Florida (USDA hardiness zones 9b-10). It typically grows at a rate of about two to three feet a year in good conditions. The tree can reach a height of 15-20 ft. (4.5-6.0 m) and width of 10-12 ft. (3-3.6 m). The leaves are evergreen lasting for 2 years; shiny dark leaves; leathery texture; new growth is rosy-burgundy in color. Flowers develop on new growth. The flowers, borne singly in the leaf axils, are 1 in. (2.5 cm) wide; have 4 green sepals and 4 white petals, and about 100 white stamens with pale-yellow anthers. The fruit looks like a Bing cherry; produces more fruit if the winter is a little chilly; borne on long stems in clusters; persistent white sepals. Fruit sets several times a year; first crop is the largest; matures in April to May; one month from flowering.



Propagation:

Most grumichamas in the nursery trade are grown from seed and seedlings produce acceptable quality fruits, but generally take about two years before they reach a bearing size. Seeds germinate quickly, about one month after planting, so if you propagate grumichamas from this year's crop or seed, you can have a good-sized shrub by the end of the year. Trees can be grafted or cloned by air-layer, although some varieties that typically produce larger fruit can be propagated by cuttings or by grafting.

General Requirements: Light requirement: Sun or part shade, Soil tolerances; Prefers deep, fertile, sandy loam; alkaline soils will cause deficiencies: iron, manganese, and magnesium, pH preference; 5.5-6.5, Drought tolerant, but not aerosol salt tolerant (needs protection from strong winds, Cold tolerance; 26°F (-3.33 °C), Plant spacing; 15-20 ft (4.6-6 m).

Roots; Shallow root system; mulch to help retain moisture in the soil.

Harvesting: The tree is regarded as remarkable for the short period from flowering to fruiting. In Florida, it has been in full bloom in late April and loaded with fruits 30 days later. The crop ripens quickly over just a few days.

Pruning: Little pruning is required. Keep to 10-12 ft for ease of harvest.

Fertilizing: Use of minor elements is desirable. Use nutritional spray on spring flush of growth.

Irrigation: The grumichama requires regular irrigation when young. Once established, it is moderately drought tolerant. ³

Pests: It is considered a host for fruit flies. Birds remain the largest problem for growers of the fruit. Some Brazilian growers use netting to keep birds from the tree. Mylar tape, Christmas tinsel, and used CD's hung from the tree can help minimize bird damage.

Fruit:

The long-stalked fruit is oblate, 1/2 to 3/4 in (1.25-2 cm) wide; turns from green to bright-red and finally dark purple to nearly black as it ripens. The skin is thin, firm and exudes dark-red juice. The red or white pulp is juicy and tastes much like a true subacid or sweet cherry except for a touch of aromatic resin. There may be 1 to 3 hemispherical, light-tan or greenish-gray seeds per fruit. Fruit is born singly on new growth. As anon-climacteric fruits, it must be harvested ripe.

Varieties:

Three varieties have been distinguished, based on little more than fruit color:

— var. *iocarpus* Berg (= var. *dombeyi*): fruits deep violet;

— var. *erythrocarpus* Berg: fruits red;

— var. *leucocarpus* Berg: in Brazil becomes a large tree to 65 ft (20 m) high and has fruits with white flesh. It is not as common as the red-fleshed type.

Food Uses:

Ripe fruits are eaten out of hand or made into juices, jellies, and marmalade. Seeded fruits are sometimes added to fruit salads. A sauce made of boiled fruits and sugar is used for pie fillings and cakes. ¹⁰

Grumichama jelly and syrup can be found at some of Hawaii farmers' markets. In the Caribbean, a reduction made from the juice of the fruit is used to accompany fish dishes. It can also be used as base for hot sauces. Processed puree is used in jam and jelly or in sauces. The pulp is juicy with a dry "grape like" skin. Approximately 6 pounds of fruit can be processed into 8 cups of puree, which can yield approximately 96-oz of jelly.

Medicinal Properties:

The bark and leaves contain 1.5% of essential oil. The leaf or bark infusion—1/3 oz (10 g) of plant material in 10 1/2 oz (300 g) water—is aromatic, astringent, diuretic and taken as a treatment for rheumatism at the rate of 2 to 4 cups daily, in Brazil.

Other uses:

The wood is cross-grained, compact, hard, moderately heavy, not very elastic, brittle, of medium durability, medium resistance to rot when exposed. The wood is used for lathe work, cabinet making, general carpentry, linings, and boxes.

General:

Father Tavares states that all the trees do not ripen their crops at the same time, some blooming later than others and thus extending the fruiting season from November to February (in Brazil). Three varieties are distinguished by him, one with dark red flesh, another with vermilion, and the third with white. All three are said to be equally good in quality.

Other Edible *Eugenia* species:

Cherry of the Rio Grande, *E. involucrata*

Rain Forest Plum, *E. candolleana*

Pitomba, *E. lustration*

Surinam Cherry, *E. uniflora*



Further Reading Material:

Brazilian Cherry or Grumichama, University of Florida, Collier County ^{pdf}

Grumichama, Book: Fruits of Warm Climates, by Julia F. Morton (See the CollierFruit.org Website)

Chempedak - Artocarpus integer

Scientific Classification: Kingdom: *Plantae*, Clade: *Tracheophytes*, Clade: *Angiosperm*, Clade: *Eudicots*, Clade: *Rosida*, Order: *Rosales*, Family: *Moraceae*, Genus: *Artocarpus*, Species: *A. integer*

Description: *Artocarpus integer*, commonly known as chempedak or cempedak, is in the same genus as breadfruit and jackfruit. It is native to Southeast Asia. The fruit is an important crop in Malaysia and is also popularly cultivated in southern Thailand and parts of Indonesia, and has the potential to be utilized in other areas. It is limited in range to Southeast Asia, with some trees found in Australia and Hawaii.



Trees are large, evergreen trees. They can grow to a height of 20 m, although most reach only a dozen meters. The trees are monoecious, with male and female flowers growing on the same tree. There are many varieties, although few are named. The vigorously growing tree can bear heavy crops once or twice a year.

Fruit: Trees begin to bear fruit at 3–6 years for trees planted by seed and at 2–4 years for clonal trees. Blossoms are common from February to April and then again in August to October in southern Malaysia, as opposed to in western Java, where cempedak tend to flower in July and August. From flowering to ripening fruit takes about 2–4 months.

The syncarp may be cylindrical to spherical in shape, and ranges from 10 to 15 cm across and 20 to 35 cm in length.^[3] The thin and leathery skin is greenish, yellowish to brownish in color, and patterned with pentagons that are either raised protuberances or flat eye facets.

Fleshy, edible arils surround the large seeds in a thick layer. The arils are edible raw, or they can be prepared in a number of ways. They are yellowish-white to orange in color, sweet and fragrant, soft, slippery and slimy on the tongue and slightly fibrous. Ripe cempedak fruit has a pungent smell that has been described as harsh and penetrating like that of durian. The taste of the fruit is similar to the related jackfruit and breadfruit with a hint of durian. The seeds, which are also edible, are flattened spheres or elongated, about 2–3 cm in length.

Cempedak is similar to jackfruit in many ways, but is smaller than jackfruit and the peduncle is thinner. The male inflorescence of cempedak is pale green to yellow compared to the dark green of jackfruit. The cempedak flesh is darker yellow and juicier when ripe.

Conditions: Cempedak trees are normally planted in non-eroded and well-drained soils, although they can tolerate temporary flooding. They can be grown from sea level to 1,200 metres (3,900 ft) altitude at temperatures between 13–47 °C (55–117 °F) and with annual rainfall of 1,250–2,500 millimetres (49–98 in).

Propagation: In Malay archipelago, cempedak is usually cultivated with other fruit trees in mixed orchard systems of small farmers and occasionally in large fruit plantations. The trees are normally propagated by bud-grafting to maintain desired genetic traits. Plants are also propagated by seed, but the seeds spoil quickly after removal from the fruit, so they must be planted immediately after cleaning.

Harvest: The timing of harvest is critical in assuring fruit quality. One of the most reliable ways to determine the maturity of cempedak is to tap the fruit and listen for a dull hollow sound. Skin color can also be an indicator of maturity, as ripened skins turn from green to a yellow color. The development of a characteristic odor similar to that of durian can also mark maturity of the fruit, in addition to the spines of the fruits' skin becoming flattened. Fruit are harvested ideally before falling to avoid damage, loss of shelf life and premature ripening. The harvested fruit produces a latex exudate, and is left to drain in the field before being moved from the orchard. The fruit has a short shelf life of 2–3 days.

Uses: Cempedak is sought after for its edible, pulpy flesh that is typically yellow/orange and rich in beta-carotene. It has a sweetly unique flavor akin to that of durian and mango.

The fruit is normally consumed in the areas where it is cultivated and can be eaten fresh or cooked. The large fruits are often cut open and sliced into pieces for sale. The seeds can be fried, boiled, or grilled, then peeled and eaten with salt. The taste of the seeds is like water chestnuts. The young fruit, like young jackfruit, can be used as a vegetable. In this case, the young fruit is peeled, sliced, and boiled, then sometimes seasoned or added as an ingredient to other foods, such as curries.

New Additions to the Collier Fruit Growers Library

“The Food Explorer: The True Adventures of the Globe-Trotting Botanist Who Transformed What America Eats,”

by Daniel Stone

The true adventures of David Fairchild, a late-nineteenth-century food explorer who traveled the globe and introduced diverse crops like avocados, mangoes, seedless grapes--and thousands more--to the American plate.

In the nineteenth century, American meals were about subsistence, not enjoyment. But as a new century approached, appetites broadened, and David Fairchild, a young botanist with an insatiable lust to explore and experience the world, set out in search of foods that would enrich the American farmer and enchant the American eater.

Kale from Croatia, mangoes from India, and hops from Bavaria. Peaches from China, avocados from Chile, and pomegranates from Malta. Fairchild's finds were not just limited to food: From Egypt he sent back a variety of cotton that revolutionized an industry, and via Japan he introduced the cherry blossom tree, forever brightening America's capital. Along the way, he was arrested, caught diseases, and bargained with island tribes. But his culinary ambition came during a formative era, and through him, America transformed into the most diverse food system ever created.

“The Secret Life of Plants,” by Peter Tompkins and Christopher Bird

Explore the inner world of plants and their fascinating relation to mankind, as uncovered by the latest discoveries of science.

In this truly revolutionary and beloved work, drawn from remarkable research by the authors cast light on the rich psychic universe of plants. The book explores plants' response to human care and nurturing, their ability to communicate with man, plants' surprising reaction to music, their lie-detection abilities, their creative powers, and much more. This classic book affirms the depth of humanity's relationship with nature and adds special urgency to the cause of protecting the environment that nourishes us.

“Mycelium Running: How Mushrooms Can Help Save the World,” by Paul Stamets

This book is a manual for the mycological rescue of the planet. That is right: growing more *mushrooms* may be the best thing we can do to save the environment, and in this groundbreaking text you will find out how.

The basic science goes like this: Microscopic cells called “mycelium”--the fruit of which are mushrooms--recycle carbon, nitrogen, and other essential elements as they break down plant and animal debris in the creation of rich new soil. What Stamets has discovered is that we can capitalize on mycelium's digestive power and target it to decompose toxic wastes and pollutants (mycoremediation), catch and reduce silt from streambeds and pathogens from agricultural watersheds (mycofiltration), control insect populations (mycopesticides), and generally enhance the health of our forests and gardens (mycoforestry and myco-gardening).

In this comprehensive guide, you will find chapters detailing each of these four exciting branches of what Stamets has coined “mycorestoration,” as well as chapters on the medicinal and nutritional properties of mushrooms, inoculation methods, log and stump culture, and species selection for various environmental purposes. Heavily referenced and beautifully illustrated, this book is destined to be a classic reference for bemushroomed generations to come.

“The Backyard Beekeeper, An Absolute Beginner's Guide to Keeping Bees in Your Yard and Garden,” by Kim Flottum

This book is not only a guide to beekeeping or a honey cookbook; it is both. No other book on the market provides an in-depth review of beekeeping and what honey is good for and how to use it. Beautifully illustrated, The Backyard Beekeeper is perfect for the health-conscious person who wants to sweeten up their life by saying no to processed sugars and yes, to eating organic, natural healthy food. This book is the complete "honeybee" resource with general information on bees, a how-to guide to the art of bee keeping and how to set up, care for and harvest your own hives, as well as tons of fun facts and projects that are bee related. The second half of the book is the complete guide to honey. It reviews the different types of honey, health effects as well as provides 100s of ideas and recipes for using honey in recipes, cosmetically in facemasks and shampoos, and for medicinal uses.

Brassinosteroids Research May Provide a Way Forward for Citrus

By Scott Thompson, Central Florida Ag News Columnist: January 11, 2023

For five years, Dr. Fernando Alferez and his UF/IFAS research group in Immokalee have been working with '[Tree Defender](#)'™ individual protecting covers (IPCs), studying how to help newly planted citrus trees in an area of widespread HLB. The results have been clear: Protecting the trees with IPCs from the moment they are planted keeps them free from Huanglongbing (HLB / citrus greening). IPCs are an effective tool against psyllids and greatly reduce canker. Here is an excerpt of Dr. Alferez's report, which points to another tool — brassinosteroids (BRs) — in the fight against HLB:

"... Our team has seen greatly improved fruit quality in 'Tree Defender' protected trees. We planted Valencia orange trees protected with IPCs in Feb. 2018 and have evidence from the first two crops (Feb. 2021 & 2022), showing significantly more °Brix and a better °Brix/acid ratio than non-protected trees. This is relevant because these crops were harvested *after* IPC removal. In the first crop, about 60% were infected. By the second, all of the trees were HLB-positive. Installing IPCs from the beginning is a beneficial kick-start that lasts at least two seasons even though the trees become infected.

Next month, we will harvest the third crop that has now been 100% infected for about one year. We are anxious to know the new data on fruit quality.

Our challenge now is to prolong tree health and keep trees producing quality fruit in a sustainable way once IPCs are removed and the trees are exposed. This requires some of the other tools in our toolbox, including the application of BRs to the trees once the IPCs are removed.

BRs are plant growth regulators that can induce immune responses in some plants, although research about citrus is scarce. Some data shows that BRs delay HLB infection because the treatment activates the immune machinery in the tree. Trees treated with BRs have less incidence of psyllids and fewer psyllid eggs and nymphs than non-treated trees. Progression of HLB infection is significantly reduced with BRs treatment, as is rust mite damage.

However, we do not know how long the effects of BRs last. This will dictate how many applications are needed and will determine the cost per acre. Thanks to a National Institute of Food and Agriculture (USDA-NIFA) grant, we are confident that we can answer this question."

Further Information: BRs are a class of **polyhydroxylated steroidal phytohormones** in plants with similar structures to animals' steroid hormones, that regulate physiological and biochemical attributes that include seed germination, flower development, root formation and resistance to various abiotic and biotic stresses. BRs regulate a wide range of physiological processes including plant growth, development, and immunity, that have shown promise in reducing pests and diseases in a wide range of plants, including citrus.

An in-depth report of Dr. Alferez work with IPC 's and BRs is available on the '[Citrus Industry](#)' website.

This is exciting work from Dr. Alferez, and it appears that BRs may be a way forward for the Florida citrus industry. [He recommends spray applications of BRs solution (6.2 oz. to 100 gals. of water) on all citrus trees, once per month year-round to reduce the infection rate.

Brassinosteroids can be sourced from [Repar](#) Corporation with headquarters in Silver Spring, Maryland.] The company's core business is marketing pesticides, including agricultural chemicals and biopesticides consistent with farming and industry needs. Warning: BRs cannot be considered as "Organic."

[] Denotes Specific information provided by Dr. Alferez.



Feel free to join BSTFC on our **Facebook group**, where you can post pictures of your plants, ask advice, and find out about upcoming events!

<https://www.facebook.com/groups/BSTFC/>

Link to the next meeting:

<https://www.facebook.com/groups/BSTFC/events/>

Our Website (and newsletters with tons of info):

<https://www.BSTFC.ORG>

Jorge Sanchez, President
Mario Lozano, Vice President
Tom Kommatas, Secretary
Janice Miller, Treasurer
Crafton Clift, Director
Eric Fowler, Director
Luis Garrido, Director



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Collier Fruit Growers

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, That 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 ANNUALLY



COLLIER FRUIT GROWERS

VISIT US AT:

www.CollierFruit.org

CFG Officers
President, Daniela Craciun
Vice President, Michael Cartamil
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Kris Boone
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