

APRIL / MAY 2023

Fruit Growers of SWFL

Published by Collier Fruit Growers





The Meetings of the Bonita Springs Tropical Fruit Club will held On Saturday, April 8 & 22 and May 13 & 27, at 4:30 pm. Bonita Springs Fire Control & Rescue District Station 27701 Bonita Grande Drive 34135

Both events will be "potluck" events, bring a dish or dessert

Please remember to pay your 2023 renewal dues: \$30 per individual or family.



The Collier Fruit Growers' Meeting will be held Monday, April 17 and May 15, Starting at 7:00 pm.

The Greater Naples Fire/ Rescue Station 14575 Collier Blvd., 34119

Enter through the east door Collier Boulevard (Rt. 951) side of the Administration Building

Please remember that it is time to pay your \$15.00 renewal dues for 2023 or risk not receiving the monthly newsletters. Please mail dues to: CFG, Inc. 1944 Piccadilly Circus, Naples, FL 34112.



The speaker at the April 17 Collier Fruit Growers meeting will be Veronica Perinon. She has work 30 years as an educator in Collier County Public Schools. Born in St. Lucia, she grew up in St. Croix, US Virgin Islands, but later moved to North Carolina to pursue an undergraduate teaching degree. With a master's degree in Educational Technology, Veronica worked as an Instructional Technology Specialist, helping students and teachers integrate technology into the classroom. She is dedicated to working with the Washington Family Ministry as they tirelessly help women overcome challenges in their lives.

Her passion for herbal remedies was inspired at an early age as she watched her grandmother use plants to help others. When her dad contracted leukemia, Veronica witnessed how the use of turmeric, beets, and carrots gave him strength. At times, consuming soursop tea made a remarkable difference and allowed him to rest easily. From her dad's experience, she turned her attention fully to plants and began exploring the healing properties of various herbs and their transformative power in helping the body. One of the natural remedies is sea moss, which has early recordings of its medicinal use from 400 BC. Sea moss, *Chondrus crispus*, is a sea algae that contains 92 of the 102 minerals needed by the human body. Sea moss has many potential health benefits, including promoting gut and joint health, boosting the immune system, improving digestion, and supporting healthy skin, hair, and nails. It is also rich in iodine, which supports thyroid function, and potassium, which is essential for heart health. Sea moss can also help remove mucus from the lungs, making it an effective natural remedy for respiratory issues such as asthma and bronchitis.

Today, her son shares the same passion for herbal remedies. Their daily conversations often revolve around the benefits of herbs and sea moss. Every day they learn about new plants and how they can help the body.



Kevin Cruz will again speak at the May 15 membership meeting of the Collier Fruit Growers in part 2 of his presentation on combining ecological restoration with sustainable food production. Kevin has worked on various organic farms in the US and Guatemala before starting his own farming projects. Using a combination of Permaculture and Agroforestry principles, he is transforming degraded land into abundant and resilient food forest systems in both Florida and Honduras. View Kevin's video [HERE](#).

Baobab Banana Bread

One of the best (& healthiest) versions of Banana Bread out there! Melt in your mouth moist and packed full of Antioxidants, fiber, vitamin C, potassium, magnesium, and calcium! Prepping takes just minutes, slow, long 45–55-minute bake provides incredible, delectable goodness!

Prep Time: 10 min, Cook Time: 45 min, Total Time: 55 min, Yield: 1 loaf.

Ingredients:

- 3 medium overripe bananas (mashed into large chunks)
- 1 cup nondairy (or dairy) milk
- 1/3 cup vegetable, sunflower or light olive oil
- 1 tsp apple cider vinegar (can sub lemon juice)
- 1 tsp vanilla extract
- 1 1/2 cup Baobest Baobab Powder
- 1/2 cup brown sugar
- 1 tsp baking powder
- 1/2 tsp baking soda
- 1/2 tsp salt
- 1 tsp cinnamon



Instructions:

1. Preheat oven to 350 degrees.
2. Grease 9" x 5" nonstick loaf pan with vegetable oil or cooking spray.
3. Using a large bowl, mash the bananas into chunks, add vanilla, oil, milk and apple cider vinegar.
4. Mix until well combined.
5. In a medium bowl, combine flour, baobab powder, sugar, baking soda, cinnamon, salt and baking powder.
6. Combine wet ingredients with dry ingredients and fold until just combine.
7. Pour into your greased baking pan and bake for 45-55 minutes or until a toothpick comes out clear from center of bread.
8. Let loaf cool before removing from pan (10 – 20 minutes)
9. Enjoy!

Nutrition facts, amount per serving: Calories: 185 calories, Total Fat: 10 g, Cholesterol: 0 mg, Sodium: 254 mg, Potassium: 262 mg, Total Carbohydrates: 27 g, Dietary Fiber: 3 g, Sugars: 21 g and Protein: 1 g.

Note: The above bread recipe is from: <https://baobest.com/recipes/baobab-banana-bread>.

Baobab Smoothie

Prep Time: 15 to 20 minutes

Author: Juka's Organic

Make the best smoothies with our recipes or you can use your own smoothie recipes and you simply just add some baobab powder. Baobab powder adds creaminess and a tangy flavor to any smoothie recipe you like. It just makes all smoothies taste better.

Ingredients:

- 2 spoons of baobab
- 1 banana
- 1 cup strawberries
- 1 orange
- 1/4 cup plain or vanilla yogurt, or milk.
- 2 teaspoons honey, a pinch of cinnamon
- 1 cup ice or 1/2 cup cold water
-



Directions:

Wash and peel all fruits and add to blender and blend until all is completely smooth and drink up!

You Can substitute with your favorite fruits & just have fun with It!

Note: From: <https://jukasorganic.com/blogs/baobabowder-recipes/smooth-out-your-smoothie-with-baobab>

Florida State Statute

Section 604.71 - Local regulation of vegetable gardens

Florida State Statute

Section 604.71 - Local regulation of vegetable gardens

(1) The Legislature intends to encourage the development of sustainable cultivation of vegetables and fruits at all levels of production, including for personal consumption, as an important interest of the state.

(2) Except as otherwise provided by law, a county, municipality, or other political subdivision of this state may not regulate vegetable gardens on residential properties. Any such local ordinance or regulation regulating vegetable gardens on residential properties is void and unenforceable.

(3) This section does not preclude the adoption of a local ordinance or regulation of a general nature that does not specifically regulate vegetable gardens, including, but not limited to, regulations and ordinances relating to water use during drought conditions, fertilizer use, or control of invasive species.

(4) As used in this section, the term "vegetable garden" means a plot of ground where herbs, fruits, flowers, or vegetables are cultivated for human ingestion.

Fla. Stat. § 604.71

Added by 2019 Fla. Laws, ch. 120,s 1, eff. 7/1/2019.

The Florida State Legislator has confirmed a person's rights to grow edible fruit, herbs, and vegetables on their own property, regardless of County or Local Ordinances and Homeowner or Condominium Association's [HOA or Condo] Rules. This State Statute voids all previous and future related Local Laws, Regulations, or Ordinances. One may argue that if it specifically stated the HOA or Condo 'Bylaws' but even the related causes in that document are unenforceable.

Furthermore, "Florida statute explicitly prevents HOAs from prohibiting certain plants (and trees) on their members' properties. Therefore, homeowners in Florida may use techniques such as xeriscaping (landscaping using drought-resistant flora) without the interference of their HOA." [South Florida Law, PLLC]

The passage of Statute 604.71 does not however relinquish the homeowner of their responsibility to properly maintain their fruit trees and "vegetable" plots in a neat, responsible manner. Homeowners also need to exercise adequate care to minimize the impact that edible fruits and vegetables may have on wildlife.

For those residents who are seasonal or who spend a great deal of time away from their home in Florida, it is strongly suggested and in fact, encouraged to provide written trespassing waivers to certain persons in order that they may provide agreed upon gardening activities and/or pick the ripened fruit and vegetables. All excess produce should be given to local hospitals or worthy food banks for distribution. This should be done free and without charge in accordance with the essence of the above Statute.

Note: This is not a legal opinion.

March 2023

Adansonia digitata – The African Baobab Tree

Scientific Classification							
Kingdom:	Clade:	Clade:	Clade:	Clade:	Order:	Family:	Subfamily:
<i>Plantae</i>	<i>Tracheophytes</i>	<i>Angiosperms</i>	<i>Eudicots</i>	<i>Rosids</i>	<i>Malvales</i>	<i>Malvaceae</i>	<i>Adansonia</i>



Adansonia digitata
in Tanzania

It is the most widespread tree species of the genus *Adansonia*, the baobabs are native to the African continent and the southern Arabian Peninsula (Yemen, Oman). These are long-lived pachycauls; radiocarbon dating has shown some individuals to be over 2,000 years old. They are typically found in dry, hot savannas of sub-Saharan Africa, where they dominate the landscape and reveal the presence of a watercourse from afar. They have traditionally been valued as sources of food, water, health remedies or places of shelter and are a

key food source for many animals. They are steeped in legend and superstition. In recent years, many of the largest, oldest trees have died. Common names for the baobab include monkey-bread tree, upside-down tree, and cream of tartar tree.

Synonyms: *Adansonia bahobab*, *Adansonia baobab*, *Adansonia integrifolia*, *Adansonia kilima*, *Adansonia scutula*, *Adansonia situla*, *Adansonia somalensis*, *Adansonia sphaerocarpa*, *Adansonia sulcate*, *Baobabus digitata*, *Ophelus sitularius*

Description: African baobabs are trees that often grow as solitary individuals, and are large and distinctive elements of savanna or scrubland vegetation. They grow from 5–25 meters (16–82 feet) tall.[2] The trunk is typically very broad and fluted or cylindrical, often with a buttressed, spreading base. Trunks may reach a diameter of 10–14 m (33–46 ft),[3] and may be made up of multiple stems fused around a hollow core. The hollow core found in many tree species is the result of wood removal, such as decay of the oldest, internal part of the trunk. In baobabs, however, many of the largest and oldest of the trees have a hollow core that is the result of a fused circle of three to eight stems sprouting from roots. The bark is gray and usually smooth. The main branches can be massive. It may take up to 200 years for a baobab tree to bear fruit, involving what is a very long commitment. All baobabs are deciduous, losing their leaves in the dry season, and remaining leafless for about eight months of the year. Flowers are large, white, and hanging. Fruits are rounded with a thick shell.



Open flower



Bisected flower



Each leaf comprises five leaflets



The fruit

Longevity: The growth rate of baobab trees is determined by ground water or rainfall. The trees produce faint growth rings but counting growth rings is not a reliable way to age baobabs because some years a tree will form multiple rings and some year none.

Radiocarbon dating has provided data on a few individual *A. digitata* specimens. The Panke baobab in Zimbabwe was some 2,450 years old when it died in 2011, making it the oldest angiosperm ever documented, and two other trees—Dorslandboom in Namibia and Glencoe in South Africa—were estimated to be approximately 2,000 years old. Another specimen known as Grootboom was dated after it died and found to be at least 1,275 years old. Baobabs may be so long-lived in part due to their ability to periodically sprout new stems.

History: The earliest written reports of African baobab are from a 14th-century travelogue by the Arab traveler Ibn Batuta. The first botanical description was by Alpino (1592) looking at fruits that he observed in Egypt from an unknown source. They were called Bahobab, possibly from the Arabic "bu hibab," meaning "many-seeded fruit". The French explorer and botanist, Michel Adanson observed a baobab tree in 1749 on the island of Sor, Senegal and wrote the first detailed botanical description of.

Distribution and Habitat

The African Baobab is associated with tropical savannahs. It is found in drier climates, is sensitive to water logging and frost and is not found in areas where sand is deep. It is native to mainland Africa, between the latitudes 16° N and 26° S. Some references consider it as introduced to Yemen and Oman while others consider it native there. The tree has also been introduced to many other regions including Australia, Asia, Jamaica, Puerto Rico, Haiti, Dominican Republic, US Virgin Islands, and Venezuela. A notable 'specimen' baobab tree, located in the US Virgin Islands, is seen as a living testament to centuries of African presence, as the seeds were likely introduced by an African slave who arrived at the former estate during the 18th century. According to the bronze memorial plaque, twelve women were rounded up during the 1878 'Fire Burn' labor riot, and burned alive beneath the tree. It has since been a rallying place for plantation laborers and unions.

The northern limit of its distribution in Africa is associated with rainfall patterns; only on the Atlantic coast and in the Sudanian savanna does its occurrence venture naturally into the Sahel. On the Atlantic coast, this may be due to spreading after cultivation. Its occurrence is very limited in Central Africa, and it is found only in the very north of South Africa. In East Africa, the trees grow also in shrublands and on the coast. In Angola and Namibia, the baobabs grow in woodlands, and in coastal regions, in addition to savannas. The African Baobab is native to Mauritania, Senegal, Sierra Leone, Mali, BurkinaFaso, Ghana, Togo, Benin, Niger, Nigeria, southern Somalia, Kenya, northern Cameroon, Chad, Sudan, Congo Republic, DR Congo (formerly Zaire), Eritrea, Ethiopia, Tanzania, Zambia, Zimbabwe, Malawi, Mozambique, Angola, São Tomé, Príncipe, Annobon, South Africa (in Limpopo province, north of the Soutpansberg mountain range), Namibia, Botswana. It is an introduced species in Java, Nepal, Sri Lanka, Philippines, Seychelles, Comoros, India, Guangdong, Fujian, Yunnan and has been planted in Penang, Malaysia, along certain streets. Arab traders introduced it to northwestern Madagascar where baobab trees were often planted at the center of villages.

Ecology

All baobabs are deciduous, losing their leaves in the dry season, and remaining leafless for about eight months of the year. The African baobab is largely found in savannah habitats, which tend to be fire prone. Adaptations to survive frequent fires include a thick and fire-resistant bark and thick-shelled fruit. Trees older than about 15 years have thick enough bark to withstand the heat of most savannah fires, while younger trees can resprout after fire. The thick outer shell of the fruit may serve to protect the seeds. Pollination in the African baobab is achieved primarily by fruit bats, in West Africa mainly the straw-coloured fruit bat, Gambian epauletted fruit bat, and the Egyptian fruit bat. The flowers are also visited by bush babies, galagos, and several kinds of insect.

With their hard coat, baobab seeds can withstand drying and remain viable over long periods. The fruits are eaten by many species and the germination potential is improved when seeds have passed through the digestive tract of an animal or have been subjected to fire. Elephants and baboons are main dispersal agents and so the seeds can potentially be dispersed over long distances. The fruits float and the seeds are waterproof, so African baobabs may also be spread by water. Some aspects of the baobab's reproductive biology are not yet understood but it is thought that pollen from another tree may be required to develop fertile seed. Isolated trees without a pollen source from another tree do form fruit, only to abort them at a later stage. The existence of some very isolated trees may then be due to their ability to disperse long distances but self-incompatibility.

The fruit, bark, roots and leaves are a key food source for many animals and the trees themselves are an important source of shade and shelter.

Conservation

The baobab is a protected tree in South Africa, and yet is threatened by various mining and development activities. In the Sahel, the effects of drought, desertification and over-use of the fruit have been cited as causes for concern. As of March 2022 African baobab is not yet classified by the IUCN Red List, although there is evidence that populations may be declining. Many of the largest and oldest African baobabs have died in recent years.

Uses

The roots and fruits are edible. The fruit has been suggested to have the potential to improve nutrition, boost food security, foster rural development and support sustainable land care. In Sudan – where the tree is called *tebeldi* تَبَلْدِي – people make *tabaldi* juice by soaking and dissolving the dry pulp of the fruit in water, locally known as *gunguleiz*. Water can also be extracted from some of the trunks.



A cow-herder in Senegal harvests baobab leaves for forage in the dry season.

Baobab leaves can be eaten as a relish. Young fresh leaves are cooked in a sauce and sometimes are dried and powdered. The powder is called lalo in Mali and sold in many village markets in Western Africa. The leaves are used in the preparation of a soup termed miyan kuka in Northern Nigeria and are rich in phytochemicals and minerals. The seeds can be pounded into a flour or to extract oil for cooking. Baobab leaves are sometimes used as forage for ruminants in dry season. The oilmeal, which is a byproduct of oil extraction, can also be used as animal feed.

The fiber of the bark can be used to make cloth. In times of drought, elephants consume the juicy wood beneath the bark of the baobab.

For Export

In 2008, the European Union approved the use and consumption of baobab fruit. It is commonly used as an ingredient in smoothies and cereal bars. In 2009, the United States Food and Drug Administration granted generally recognized as safe status to baobab dried fruit pulp as a food ingredient. Baobab powder is readily available online.

List of Species in the Adansonia Subfamily:

As of July 2020, there are eight recognized species of *Adansonia*, with six endemic to Madagascar, one native to mainland Africa and the Arabian Peninsula, and one native to Australia. The mainland African species (*Adansonia digitata*) also occurs on Madagascar, but it is not a native of that island. Baobabs were introduced in ancient times to south Asia and during the colonial era to the Caribbean. They are also present in the island nation of Cape Verde. A ninth species was described in 2012 (*Adansonia kilima*, Pettigrew, et al.) but is no longer recognized as a distinct species. The African and Australian baobabs are similar in appearance, and the oldest splits within *Adansonia* are likely no older than 15 million years; thus, the Australian species represents a long-distance trans-oceanic dispersal event from Africa. The lineage leading to *Adansonia* was found to have diverged from its closest relatives in Bombacoideae like *Ceiba* /*Chorisia* at the end of the Eocene, during a time of abrupt global climate cooling and drying, while a divergence of this *Adansonia*+*Ceiba* /*Chorisia* clade from *Pachira* was found to be more ancient, dating to the middle Eocene.

List of species of <i>Adansonia</i>		
Species	Common names	Native range
<i>Adansonia digitata</i> , L. (also includes <i>Adansonia kilima</i>)	African baobab, dead-rat-tree, monkey-bread-tree, montane African baobab, Gongolaze	western, northeastern, central & southern Africa, SW Asia (Yemen, Oman)
<i>Adansonia grandidieri</i> , Baill.	Grandidier's baobab, giant baobab	west central Madagascar
<i>Adansonia gregorii</i> , F.Muell. (syn. <i>A. gibbosa</i>)	boab, Australian baobab, bottle-tree, cream-of-tartar-tree, gouty-stem	Australia (Northern Territory, Western Australia)
<i>Adansonia madagascariensis</i> , Baill.	Madagascar baobab	northwest and north Madagascar
<i>Adansonia perrieri</i> , Capuron	Perrier's baobab	northern Madagascar
<i>Adansonia rubrostipa</i> , Jum. & H.Perrier (syn. <i>A. fony</i>)	fony baobab	central-to-south part of western Madagascar
<i>Adansonia suarezensis</i> , H.Perrier	Suarez baobab	northern Madagascar
<i>Adansonia za</i> , Baill.	za baobab	west and southwest Madagascar

Why We Use Botanical Names for Plants

Learn the Language of Plant Taxonomy

By DAVID BEAULIEU

Updated on 01/11/22

For over 200 years we have used the classification model of botanical nomenclature (that is, scientific plant naming, also known as botanical names) instituted by Linnaeus (1707-1778), the language of plant taxonomy that is employed around the world. Plant taxonomy is the discipline underlying the system of classification used by botanists and horticulturists to organize plants and identify them clearly. Improving on the models developed by his predecessors, Linnaeus simplified the naming procedure through the "binomial" system.

The Binomial System

Linnaeus' binomial system uses one Latin name to indicate the genus, and another to indicate the specific epithet. Together, the genus and epithet comprise the "species." By definition, "binomial" means "characterized by having two names," from the prefix "bi-" (indicating "two") and the Latin word for "name," *nomen*.

For example, botanical nomenclature classifies Oriental bittersweet as *Celastrus orbiculatus*. The first part of the name, *Celastrus*, is the genus, the second, *orbiculatus*, the specific epithet. Although another plant, bittersweet nightshade, also has "bittersweet" in its common name, you know immediately when you see its Latin name (*Solanum dulcamara*, where the first Latin name is for the genus, nightshade, and the second is for the specific epithet, bittersweet) that it is not related to *Celastrus orbiculatus* (*Solanum* and *Celastrus* are two entirely different genera). A third plant, namely, *Celastrus scandens*, is also commonly referred to as "bittersweet" (American bittersweet), but the *scandens* in its botanical name clearly distinguishes it from its Oriental cousin.

Fun Fact

According to a report by the Royal Botanic Gardens, Kew, in the United Kingdom, about 391,000 species of vascular plants are currently documented.

Why We Use Botanical Plant Names

We use scientific plant names (or "botanical plant names") to avoid confusion since they are an international language of sorts. That does not mean that they, themselves are never confusing; botanists sometimes decide the current plant taxonomy is "wrong" and change the name. But, by and large, the use of the binomial system described above achieves greater clarity than the use of common plant names.

The Breakdown of a Botanical Name

Species, genus, and family are the three classifications you need to know. The species is a subset of the genus, and the genus is a subset of a family.

Capitalization and Format

The genus begins with a capital letter, whereas the first letter in the specific epithet is lower-case. Both are italicized.

- **Example:** *Ficus lyrata*

Why We Use Botanical Names for Plants

Learn the Language of Plant Taxonomy

CONTINUED

Translated Latin Names

In instances where we translate from Latin to arrive at the common name, we reverse the order of the names, putting the epithet before the genus.

- **Example:** *Solanum dulcamara*
- The common name is bittersweet nightshade, but *solanum* translates to nightshade and *dulcamara* translates to bittersweet.

Tip

The common name for a plant is not always a literal translation of the Latin name. For example, the common name for *Celastrus scandens* is American bittersweet, but the literal translation of the Latin, in this case, has nothing to do with either "American" or "bittersweet."

Third Names

Sometimes in plant taxonomy, you will see a third name. In such cases, we are simply getting more specific, accounting for variation within a species. Most commonly, this third name indicates a cultivar (cultivated variety); it will appear in single quotation marks and its first letter is capitalized.

- **Example:** *Salvia nemorosa* 'Cardonna'

But, sometimes, this third name indicates a variety (naturally occurring variety). A variety name is preceded by the abbreviation, "var." Unless the variety name is a proper noun, its first letter is not capitalized. But, like the genus name and specific epithet, the variety name is italicized.

- **Example:** *Cornus florida* var. *rubra*

Sometimes you will see spp., it means that the name is referring to several species within the genus.

- **Example:** *Origanum* spp.

Sometimes yet another word is added after the genus name and epithet, which is neither italicized nor set off by quotation marks—the name of the person who first described the plant. These names are sometimes abbreviated. When the name is abbreviated as "L," it stands for "Linnaeus."

Hybrids

When you see a genus name followed by the letter "x," followed, in turn, by an epithet, this is an indication that the plant is a cross between two different plant species—a "hybrid plant."

- **Example:** *Senecio* x. *peregrinus*



Citrus and Salinity

FEBRUARY 24, 2022 CITRUS, NUTRITION, RESEARCH

By Mongi Zekri

Please use this link to read this article online:

<https://citrusindustry.net/2022/02/24/citrus-and-salinity/>

Salts are a common component of soils that originate from mineral weathering, fertilizers, irrigation waters and soil amendments. The addition of most soluble fertilizer materials will increase soil salinity. However, it is only when salts are present in relatively high concentration that crops are damaged or adversely affected.

Salinity is of increasing concern in Florida because of saltwater intrusion into groundwater in areas where citrus is grown. The ions in soil solutions, which contribute significantly to salinity problems, are principally sodium, chloride, calcium, magnesium, sulfate, potassium, bicarbonate, carbonate, nitrate and borate ions.

All stages of citrus tree development, such as root and vegetative growth, are adversely affected by salinity. Salinity can also depress flowering, fruit yield and fruit quality. Citrus is generally classified as a salt-sensitive crop because growth and yield reductions can occur at relatively low salinity levels.

Salinity of irrigation water is determined by measuring the electrical conductivity (EC) of the water. Soil salinity is determined by measuring EC of the solution extracted from a water-saturated soil paste with an EC meter. Salinity is expressed in units of deciSiemens per meter (dS/m) or millimhos per centimeter (mmho/cm). Both are equivalent units of measurement. The total dissolved salts or solids (TDS) in parts per million can be estimated by multiplying EC in dS/m or mmho/cm by 700.

SALT DAMAGE

Salt damage is caused by a decrease in the water potential of the soil solution or by the toxicity of specific ions. Some researchers attribute most of the salt damage to osmotic stress, while others believe that salt damage is due to toxic effects of specific ions. Water is osmotically more difficult to extract from saline solutions. Salt addition is analogous to soil drying since both result in reduced water uptake.

Ion toxic effect is attributed to excess accumulation of certain ions in plant tissues and to nutritional imbalances caused by such ions. High concentrations of chloride and sodium in citrus leaves shorten the lifespan of leaves by increasing chlorosis and by promoting senescence and abscission. Accumulation of ions in large amounts in leaves can cause leaf burn and inhibit certain metabolic processes.

Depending on climatic conditions, visible sodium toxicity symptoms may appear when leaf sodium levels reach 0.2 to 0.5% of leaf dry weight. Chloride toxicity symptoms usually appear when leaf chloride levels reach 0.5 to 0.7%. For salt concentration in the soil, the threshold salinity is an electrical conductivity of the soil saturation extract of 1.8 dS/m. Above this threshold, yield can be reduced at a rate of 16% per dS/m.

Relatively few studies have been conducted to investigate the effects of a combination of water table and salinity on citrus, even though this condition is prevalent in Florida and many parts of the world. The severity of defoliation and twig dieback due to salinity is greatly accelerated by a frequently fluctuating water table.

IRRIGATION AND NUTRIENT MANAGEMENT

Good irrigation management should consider the salinity factor in the irrigation water and in the root zone. As soil dries, salts become concentrated in the soil solution, increasing water stress. Therefore, salt problems are more severe under hot, dry conditions than under cool, humid conditions. Increasing irrigation frequency and applying water in excess of plant demand may be required during hot, dry periods to minimize salinity stress.

Prior to implementing irrigation management, the water source should be tested for quality. The results of the test will determine if the water is suitable for citrus irrigation. The primary requisite for managing soil salinity is adequate drainage. When saline irrigation water is a potential problem, fertigation should be managed properly. A fertilizer program using frequent applications of relatively low fertilizer rates is recommended over a program using infrequent applications of high fertilizer (salt) concentrations. Selecting nutrient sources that have a relatively low salt index can reduce salinity problems.

Avoiding the addition of chloride from the application of muriate of potash (potassium chloride) and the addition of sodium from sodium nitrate are also good strategies. It is recommended to routinely monitor the TDS of irrigation waters to keep poor-quality water off the leaves, especially under dry weather conditions, and to keep the soil moist so as to not further increase its salt concentration.

Mongi Zekri is a multicounty citrus Extension agent with the University of Florida Institute of Food and Agricultural Sciences in Southwest Florida.

Collier Fruit Growers News

Tasting the Tropics' at Naples Botanical Garden

The Collier Fruit Grower will again be sponsoring the third annual 'Tasting the Tropics' on Saturday, July 1st, from 9:00 am until 2:00 pm, with a fruit display and tasting in Kapnick Hall. The schedule of individual activities will be published in the June FGSWF Issue of the newsletter.

Starting at 2:00 pm CFG will hold several lectures in Beuhler Auditorium. The keynote speaker will be Dr. Noris Ledesma, the world-renowned authority on mangoes. Other speakers will discuss the benefits and care of fruit trees in the home garden. A brief update on CFG progress of expanding a permaculture curriculum into the Collier County public schools will be presented. Mango tasting and light refreshments will be offered. The afternoon lectures will be free to all.

Members who are willing to help will receive free admission to the Garden.

School Education Program

Plans are underway to introduce an agriculture program into the third and fourth grades of the 32 elementary public and numerous charter schools throughout Collier County. The fruit club is collaborating with the Education Department's 'Let's Grow' program at Naples Botanical Garden, University of Florida UF/IFAS, Florida Gulf Coast University's permaculture curriculum, ECHO in North Fort Myers, One Flower Project in Fort Myers and, Cultivate Abundance in Immokalee to establish a proposed program to grow annual fruits & vegetables, and to propagate perennial fruit trees from cutting at the participating schools. The program will most likely span two school years, August to May each year. Students will be expected to take an increased responsibility over time. The program's implementation will depend upon the enthusiasm of the individual teachers and the School Board. The initial rollout of the program will most likely be in Immokalee where the benefits are warranted.

Several middle and senior high school teachers have expressed an interest in establishing Food Forest at their respective schools with biology classes and after school curriculums. Trees, plants, and the needed materials will be sourced through CFG and with outside donations. Student enthusiasm will increase as their education progresses.

Thrips Detected in Collier County

Scott D. Krueger, Environmental Specialist, Division of Plant Industry, FL Depart. of Agriculture and Consumer Services reported that as of February 2023 new [Thrips parvispinus \(Karny\) \(fdacs.gov\)](#) were detected in Collier County. The newly detected thrips are spreading quickly, causing damage, are hard to control, and are classified as a 'quarantine' pest.

Fruits that Ripen in April / May

Avocado, banana, Barbados cherry, blackberry, black sapote, canistel, cherry of the Rio Grande, coconut, custard apple, fig, grumichama (May), guava, jaboticaba, jackfruit, loquat, mango (early varieties in May), miracle fruit, mulberry, monstera, natal plum, nectarine, mulberry, miracle fruit, strawberry tree (muntingia), papaya, pineapple (early), sapodilla, Surinam cherry, tamarind, and white sapote

**The Poem 'Georgics,' Book II 'Arboriculture and Viniculture,'
(Continued from the March 2023 CFG newsletter)
Lines 61-135, written by Maecenas and Virgil in 29 B.C.**

BkII:61-108 Treatment of Individual Species

Labour must be spent on them all, of course,
and all have to be set in trenches and tamed at great cost.
But olives respond best as boles, vines in layers,
Paphian myrtles from the solid trunk:
tough hazels spring from suckers, and the giant ash:
and the shade-giving tree that garlanded Hercules,
and Chaonian Jupiter, from acorns: so too the tall palm
rises, and the fir that will meet the dangers of the sea.
But the wild strawberry-tree is grafted with a walnut shoot,
and barren plane-trees have carried vigorous apple:
the beech has shown white with pale chestnut flowers, and the ash with the pear's: and
pigs have crunched acorns under the elm.
Nor is the method of grafting and budding always the same.
Where the buds push out of the bark and burst
their tender sheaths, a narrow slit's made in the knot:
in this they insert a bud from a different tree,
and teach it to grow into the sapwood.
Or, again, trunks without knots are split open,
and paths are cut deep to the core, using wedges,
then vigorous shoots admitted: and, in a little while,
a tall tree with fine branches rises to the sky,
wondering at strange leaves and fruit not its own.
Also the strong elms are not of only one species,
nor the willow, lotus, nor the cypresses of Ida,
nor do rich olives only grow in one form, there are
oval orchads, long radii, and bitter-fruited pausians:
and so with apples and the orchards of Alcinous: nor are cuttings
the same for Crustumian pears, and Syrian, or the heavy volema.
The same vines don't hang from our trees
that Lesbos harvests in Methymna's branches:
there are Thracian grapes, and the white Mareotic,
one suited to rich soils, the other to lighter ones,
and the Psithian, better for raisin-wine, and the light Lagean,
sure to trip your feet, and tie your tongue some day:
the ripe purple and the early-ripening, and what should I say
of you Rhaetic? Still yours don't compete with Falernian cellars!
And there are Aminnean vines, their wine's most certain,
to which the Tmolian bows, and the king itself, Phanaean:
and the lesser Argitis, that none can match

CONTINUE

in quantity or in enduring so many years.
I wouldn't pass you by, Rhodian, fit for the gods
and the second course: or Bumastus, your swollen clusters.
But there's no final count of the many species or names,
nor indeed is it worth counting them all:
who wishes to know, will also want to learn how many grains
of sand, on the Libyan plain, are blown by the West wind,
or how many waves of the Ionian Sea reach shore
when an East wind strikes the ships violently.

BkII:109-135 The Effects of Climate and Location

Nor do all lands carry all kinds of plants.
Willows grow by rivers, and alders in dank marshes,
and the barren manna ash on rocky hills:
the coast delights in myrtles: lastly Bacchus's vine
loves open hills, and the yew the cold North wind.
See, the furthest regions are tamed by cultivation,
the Arabs at home in the East, the tattooed Scythians:
country's differ in their trees. Only India
bears black ebony, only Sabeans have frankincense.
Why tell you of the balsams that drip from perfumed wood,
or the berries of the evergreen acanthus?
Why mention the Ethiopian trees white with cotton,
or how the Chinese obtain silk from their leaves?
Or the jungles India bears nearer to the Ocean,
on that coast at the world's end, where no arrows
can reach the air above the tops of the trees?
Yet that people's not slow to handle the quiver.
Media produces bitter juices, and the lasting taste
of the healthy citron, which comes as an antidote,
and drives the dark venom from the limbs
if a cruel stepmother poisons the drinks,
mixing herbs with harmful spells, no one suspecting.
The tree itself is tall and looks like a bay
(and would be a bay if it didn't give off
a different perfume): no wind makes its leaves fall:
its flowers are particularly lasting: the Mede
sweetens his breath with it, and cures old age's asthma.

the Bonita Springs tropical fruit club



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/>
Meetup Link (events/meetings sync with the calendar on your phone!):

<https://www.meetup.com/Bonita-Springs-Tropical-Fruit-Club/>

Our **Website** (and newsletters with tons of info):

<https://www.BonitaSpringsTropicalFruitClub.com/>

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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. 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.



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