



NEWSLETTER

JANUARY 1989

**TAMPA BAY CHAPTER of the
RARE FRUIT COUNCIL INTERNATIONAL, Inc.**

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(Including renewals)

MEETINGS ARE HELD THE 2nd SUNDAY OF THE MONTH AT 2:00 P.M.

NEXT MEETING JANUARY 8, 1989

MEETING PLACE. HILLSBOROUGH COUNTY AGRICULTURAL BUSINESS
CENTER (COUNTY AG. AGENTS' BUILDING, SEFFNER)
Take I-4 to Exit 8 South, State Road 579; go
past traffic light at U.S. 92 intersection.
Building is less than 1/2 mile on left (East)
side of U.S. 92. Use parking lot. Meeting
room in rear of building. Main door will
probably be locked. Walk around.

PROGRAM. SKIP COE IS A MEMBER OF THE BONSAI SOCIETY.
He will show slides and speak on the making
of Bonsai. He is an excellent speaker and
will provide pointers which should be useful
in dwarfing trees for small yards. Many
fruiting trees such as the Jaboticaba can
be used to make excellent bonsai plants.
In addition we will have a short question
and answer session with our local experts
so bring your most pressing questions with
you. As usual, we will have our refreshment
table and raffle.

A MESSAGE FROM THE PRESIDENT

It is getting hard to think of something new for our monthly meetings.
I need some input from you on what you like to do at meetings. We have
heard most of the speakers available. Some many times. Give me some ideas,
write them down, or tell me at the meeting.

Congratulations to Janet Conard and Kay Netscher on completing the
Master Gardener training program with Hillsborough County Cooperative
Extension Service. They will assist the Extension Agents in answering
questions at the office and in other extension education programs. We
have just completed a perennial garden at the center with a planting of
bulbs on which we will keep records and evaluate for future use. For
those with an interest in volunteer work and time to do it, this is a
great program to get into.

For those who need pH tests, bring samples to the meetings and I will
have them done by the Extension lab.

Al Hendry

DECEMBER PLANT RAFFLE

<u>Plant</u>	<u>Donor</u>	<u>Winner</u>
Black Surinam Cherry	Armando Mendez	Nels Gullerud
Black Surinam Cherry	Armando Mendez	Steve Charlton
Momocillo	Armando Mendez	F.C. Galang
Wild Passiflora	H. Seekins	?
Wild Passiflora	H. Seekins	Molly Charlton
Japanese Plum	Honeycutt	Jim Murrie
Japanese Plum	Honeycutt	Nels Gullerud
Julie Mango	RFCI	Mike Oratowski
Orlando Seedless	RFCI	Molly Charlton
Lychee	Nels Gullerud	Walter Vines
Apple Mint	Nels Gullerud	?
Rosemary	Nels Gullerud	Bobbie Puls
Avocado	Lydia Oratowski	Al Hendry
Avocado	Lydia Oratowski	Steve Charlton
Apple Mint	Nels Gullerud	F. C. Galang
Cactus Fruit	?	?

HOSPITALITY TABLE

Joan Murrie	- Mango Quickie Crumb Cake
Lillie Belle Simmons	- Seedless Watermelon
Walter Vines	- Persimmons (frozen)
Bea Seekins	- Mincemeat & Apple Kringle, Cran-Raspberry Juice, Apple Juice, Cream for Fruit

RECIPE OF THE MONTH:

MANGO QUICKIE CRUMB CAKE by Joan Murrie

1/3 cup butter or margarine
 2 eggs
 1 tsp almond extract
 1/2 box yellow 2-layer cake mix
 1 cup mango chunks
 1 cup milk

Topping:

1/3 cup melted butter
 1 cup slivered almonds
 1/2 box yellow cake mix

Melt 1/3 cup butter or margarine in a 13 x 9 baking pan. Combine 1/2 box cake mix, eggs, mango chunks, almond extract and milk in a mixing bowl. Stir until smooth and pour into baking pan. Combine topping ingredients and crumble over cake batter.

Bake at 350°F for 25-30 minutes.

INTERAMERICAN SOCIETY OF TROPICAL HORTICULTURE MEETING by Al Hendry

I attended the 35th annual meeting of the I.S.T.H. at Santa Marta, Columbia, November 15th to 20th. This was a joint meeting with Federation de Productores de Hortalizas y Frutales of Columbia.

The meeting was held at a modern convention hall in a hotel a short distance from town and directly on the Caribbean Sea. Santa Marta is the oldest European-founded city in South America. It was settled in 1525 by Rodrigo the Bastard. It is about 1400 miles south of Tampa.

The function of the ISTH is to disseminate information on tropical horticulture developed from research by universities and other government research centers and commercial growers. Members are mostly from Florida and tropical Caribbean and central and South American countries. There are also members in Israel and Guam. Research papers were read in Spanish and English and a simultaneous translation service was available.

I have titles and abstracts of papers read and will make available the proceedings with full papers when published.

To me, some of the more interesting ones were:

1. Utilization of Carambola as a Tropical Fruit Drink by Dr. Mathews of IFAS Univ. of Florida.
2. The Use of PLant Growth Regulators and Irrigation to Control Flowering of Acerola by L.S. Michelini of Barbados.
3. Effect of Growth Regulators on Winged Bean by Dr. Lee of University of Guam.
4. Brackish Water Irrigation of Container Grown Horticultural Crops by Dr. Fitzpatrick of AREC Ft. Lauderdale.
5. The First Decade of Clonal Propagation of Avocado Root Stocks by Dr. A. Ben-Ya' Acov of The Volcani Center, Israel.

There were also social functions and field trips as a part of the meeting. The normal dry season was wet so we were not able to go to some of the farms. We visited a government research station similar to the AREC stations in the United States.

A gene bank is a part of the station. Gene banks are designed to store genetic material for use by breeders and to provide a safe storage of genetic material in the event of a natural disaster. The wild ancestors of many of our food and fiber crops have disappeared because of human encroachment or climate changes. Material may be stored as seeds or if seeds cannot be stored, by living plants. Living material is planted at stations a long distance from the same crops planted commercially to prevent all from being destroyed in the event of disease. For example, the cacao bank is established in Miami, far from any commercial crops.

Gene banks are in existence around the world. The Rice Research Institute in the Philippines has 78,800 accessions of rice held in storage. Columbia has a large collection of bean and cassava germ plasm.

Germ plasm is usually freely available without political or commercial consideration. However, Ethiopia, where wild coffee originated, has held back rust resistant varieties. Date palms are prevented from leaving Israel. Jamaica holds back allspice and Malaysia, African oil palm. Brazil tried to hold a monopoly in rubber for years and various European interests tried with spices in Asia. Rubber and spices are now grown around the world in favorable locations.

The next ISTH meeting is to be in Guyana in 1989 on a date to be determined. The 1990 meeting is to be in Jamaica. The meetings are worthwhile to anyone with even a small interest in horticulture.

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EDIBLE NUTS OF THE TROPICS (adapted from Miami RFCI Newsletter)

What is a nut? Willis defines a nut as "an indehiscent, one-celled and one-seeded hard and bony fruit, even if resulting from a compound ovary." Lyman Benson in his book, Plant Classification, calls a nut "a hard, relatively large, indehiscent, one-seeded fruit." Meninger, in his Edible Nuts of the World, describes them as "any hard-shelled fruit or seed, of which the kernel is eaten by mankind." The Encyclopedia Britannica refers to nuts as "a term applied to that class of fruit, which consists generally of a single kernel enclosed in a hard shell. Botanically speaking, nuts are one-celled fruits with hardened endocarps, sometimes enveloped in a cupule or cup, formed by the aggregation of bracts as in an acorn." I shall therefore describe the word "nut" in its broadest sense, without attempting to discuss achenes, caryopses or drupes. Furthermore, since there are so many taxa, I will only mention a few "nuts" of economic and nutritional interest.

Nuts have been the food of man since time immemorial, and still constitute one of the main article of diet in many parts of the world. To early man they may have even been a staple food, as the contents of cave dwellings might suggest. To realize their importance at this point in time, one has only to consider the coconut in Southeast Asia and the Pacific area, or the peanut to millions in China, India, Africa, South and Central America.

A great number of nuts enter commerce for various purposes - articles of food, sources of oil, and even ornamentation. Certain edible species such as the coconut, Brazil nut, pecan are especially rich in fat, while others, such as the lychee, chufanut and water chestnut are not rich in either oils or carbohydrates. Some nuts yield oils hardly fit for human consumption, yet are very valuable in soapmaking, while still others furnish oils used in making paints and varnishes. Some nuts are used only in making buttons, cigarette holders and other tourist-oriented bric-a-brac.

Nuts of special interest include the betel nut (Areca catechu) in the Arecaceae. This is technically not a nut! In fact, no palms have nuts - their fruit are known as drupes. The "nuts" are two or three inches long, encased in an orange or scarlet fibrous covering. The kernels inside are about 3/4 inch long and reddish yellow. They are borne on a

single trunked palm which can grow up to 100 feet in height, even though the trunk of a mature specimen does not exceed 4 or 5 inches in diameter at the base. The "nuts" are an important article of commerce in countries like Ceylon, India, the Phillippines and Malagasay Republic, where they are chewed with a leaf of the Betel Pepper (Piper betle), a little finely ground lime, and other condiments like clove, cardamon or even cured tobacco leaves. There is no narcotic additive principle involved.

Brazil nuts and Sapucaia nuts are close relatives from the Amazon region. The Brazil nut in the Lecythidaceae is outstanding among the great nut trees of the world. It is enormous in size, often 150 feet or more, with a straight bare trunk, the massive top standing high above the surrounding forest, in low, river bottom land. Although the nuts are enjoyed in many parts of the world, they are not eaten in Brazil and the seeds are not planted there. There are no Brazil nut farms and little effort is expended to gather these nuts except from wild trees and that, too, only when they fall to the ground. An interesting adjunct is that these fruits are so heavy and hard (pods are 4-6 inches in diameter with a rough, brown, very hard shell which is 1/2 inch thick and lined with hard fibers) that they are dreaded as projectiles or bombs in the African jungle. Their weight is not inconsiderable and the momentum acquired by them as they drop gives them frightening velocity and force - an exceedingly dangerous missile! The nuts are usually collected by the Castanheiros (a name given to Indians or migrant workers who gather these nuts) and every year several of these persons are killed or badly injured by falling fruits.

The Sapucaia nut from southern Brazil is also not eaten in Brazil as a general rule. The nuts are similar to the Brazil nut in size and shape, but on the tip have a big irregular and crested aril which protrudes from the brown nut proper. Under certain soil conditions, the sapucaia may be poisonous. The name "Sapucaia" is said to be a native Brazilian word meaning "chicken" - from the fact that the nut was frequently fed to chickens.

In 1891, three hundred seeds of the Swarri nut were sent from the Royal Botanic Gardens, Kew, to the Seychelles, Port Darwin, Brisbane, Gold Coast, Java and Ceylon. Seeds introduced to the Peradeniya Gardens, Kandy (Ceylon) did not flower until 20 years later - due probably to unsuitable soil conditions, because it is known that this tree is somewhat fastidious in regard to soil and environment. In addition to raising young plants from seed, propagation by marcottage is also possible, as has been demonstrated at Peradeniya, Ceylon.

This tropical American nut from the Guianas called Butternut, which should not be confused with the Butternut (Juglans cinera) of the temperate zone, is larger and quite different in appearance from either the Brazilnut or Sapucaia (Paradise) nut - its two tropical confreres. It is about four times the size of the average Brazil nut and its most characteristic feature is its hard thick shell and brownish red color. It is covered with small wart-like protruberances. The kidney-shaped kernel is over 2 inches in length and 3/4 inches in diameter, surrounded by a brown testa or covering. The kernel itself is snow white, soft and of a particularly pleasant flavor. Its somewhat fatty consistency may have earned for it the name "Butternut". Over 60% of fat is present in the kernel. Chemically it is not one, but a mixture of fats that is present, and it is these that give the kernel its fine flavor and aroma.

The achene of the Breadnut (Brosimum alicatrum), a relative of the breadfruit (Artocarpus altilis), both of which are in the Moraceae, is about an inch in diameter and contains a single seed, which when roasted or boiled is nutritious. A theory has been expounded that this nut was used by the Mayans and certain Indian tribes in Central and South America as an added food source, to supplement their staple of Zea mays. It did not decompose or go rancid as easily as corn. Even today the pericarp, which is relatively sweet, is reduced to a meal, that is mixed with maize meal to make tortillas, or is baked with green plantain.

The cashew nut is characteristic of the Poison ivy family and can be harmful until roasted. It originated in the American tropics (probably the West Indies) but is now extensively cultivated in the drier areas of India, Ceylon and East Africa. The tree can reach up to 40 feet in height, grows easily from seed, and starts producing nuts when it is three years old. The kidney-shaped hard-shelled nut is borne on an enlarged fleshy receptacle called the cashew "apple" (or pulang, as it is known in Ceylon) which is about 2" in diameter and 4" long. At maturity the "apple" turns bright red or yellow. The shell contains an oil that is highly irritating to the skin, and the nuts should be heated to render the oil less caustic before the kernels are extracted. Since the caustic oil is expelled from the shell during roasting, the smoke must not come in contact with the eyes or the skin. The cashew is one of the most delicious of nuts after being roasted and it is rich in protein and fat. The oil, contained in the spongy layer of the shell, has high polymerizing and friction-reducing qualities, and is used extensively in the paint and varnish industry in the United States. It also has a strategic value in that it is used as a component of space-rocket lubricants. There are more than 300 patented uses for cashew by-products, including cattle feed.

(TO BE CONTINUED)

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