RFCI NEWSLETTER AUGUST 1997

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

EDITORIAL COMMITTEE: BOB HEATH, THERESA HEATH, ARNOLD STARK, LILLIAN STARK

PRESIDENT: CHARLES NOVAK CHAPTER MAIL ADDRESS: 313 PRUETT RD, SEFFNER FL 33584 (including renewals)

MEETINGS ARE HELD ON THE 2nd SUNDAY OF THE MONTH AT 2:00 p.m.

NEXT MEETING: AUGUST 10, 1997

MEETING PLACE: RARE FRUIT COUNCIL CLUBHOUSE, 313 PRUETT RD, SEFFNER. Take I-4 to Exit 8 North, S.R. 579; go one mile to Pruett Rd. (see McDonald School sign). Turn right (East). Go one mile. See Clubhouse on left immediately past McDonald School.

PROGRAM: OUR GUEST THIS MONTH IS LARRY SHATZER, OWNER OF OUR KIDS NURSERY. He will be speaking to us about the fascinating world of gingers, particularly edible gingers. All ginger roots are edible in terms of not being poisonous; some are just not very palatable. Most gingers are cultivated for the beautiful flowers, which are among the largest and showiest of flowers. The so-called edible ginger, Zingiber officinale, and cardamom, Elettaria cardamomum, grown as spices or seasoning, have much less showy flowers. We will also enjoy the tasting table and plant raffle. Come and enjoy.

CONDOLENCES...

It is with heartfelt sorrow that we offer our condolences to the family of Armando Mendez on his demise Tuesday, July 15. Armando was a long time active member of the club and was loved by all of those who knew him. He will be sorely missed by those of us close to him who enjoyed his friendship and companionship in our horticultural endeavors.

FROM THE PRESIDENT by Charles Novak

We are saddened at the loss of Armando Mendez, a long time club member. He will be greatly missed.

The Rare Fruit Club Conference at the Fruit and Spice Park, July 11-13, was thoroughly enjoyable. I've never tasted so many mangoes at one time. It was interesting that several of us agreed on a favorite mango, Nam Doc Mai. The tour of the Kampong was a treat. We were allowed to take cuttings and seeds from the many rare and unusual tropical trees. If enough members are interested, we might possibly arrange a tour for the club. It would need to be a 2-day trip.

Please take the time to vote for the future of the club and clubhouse. This is a very important decision.

Larry Shatzer from Our Kids Nursery is our speaker for August. He will be presenting a program on edible ginger. Learn how to grow ginger and what parts are edible.

The following is a list of scheduled programs/speakers:

August 10	Larry Shatzer - Edible Ginger
September 14	Paul Beaver
October 12	Tom Economou
November 9	Chris Rollins
December 14	Christmas & Hanukkah Social
January 11 '98	Maryon Marsh - Herbs
February 9	Marian Van Atta - Living off the Land

In the spotlight this month is: Gerald (Jerry) Amyot for chauffeuring us around in his new van at the Rare Fruit Club Conference. We visited many places and carpooling was advised. Linda, Bob, Arnold, Lillian and I are very grateful to Jerry and his wife, Londa. Jerry is always ready to help when the need arises.

Some good news: The rate of the Africanized honey bee expansion in the Western Hemisphere has slowed from about 300 miles-per-year in the tropics to an almost stagnant rate in the United States.

The Rare Fruit Club Conference by Lillian Stark

On July 11, 12, and 13, 1997 nine of our club members attended the Rare Fruit Club Conference in Homestead. It was great fun. We toured some interesting plantings, met with members from other Florida clubs, tasted lots of fruit, and attended a lecture series. Following are some notes I took during the lectures. Because the room was very dark (slides were shown) and the speakers presented a lot of material rather quickly, the notes are not as complete as I would like. But, I hope you find them interesting and that they entice you to attend the next conference in person.

"Genetic Improvement of Bananas and Plantains" by Dr. Philip Rowe

There are 3 major banana problems: Black Cigatoka, which reduces yield by more than 50% and reduces shelf life; Panama Disease, a lethal Fusarium infection; Nematodes, which may be very severe. The first commercial banana introduced into Martinique in 1835 was the Gros Michel Banana. It was taken to Jamaica and became the most important fruit variety in the world in terms of volume by 1936. But, within 20 years all were dead due to Panama disease. This is an incurable infection and the only way to get around it is to plant naturally resistant strains, such as the Cavendish types. Grand Nain is the primary one used.

Black Cigatoka came to the Americas in the 1960s and there is a need to spray frequently. Although Gros Michel is no longer used commercially, it is used in breeding. It is a triploid variety, and when pollinated, a few seeds are produced. A diploid variety is used as the pollen parent. Since the pollen is haploid, and the egg of the Gros Michel stays triploid, a tetraploid progeny results. In 10 years of work on this project, 10,000 hybrid seedlings were produced, finally getting a diploid that had a good fruit bunch to use as a male parent.

Only about 10% of the seeds planted in the soil will germinate, therefore the researchers crack the seed coat, remove the embryo and plant it in a test tube to achieve 50% germination. From this they can get a diploid with good fruit bunch characteristics and disease resistance. They then cross this with Gros Michel to get a larger tetraploid with resistance. This is also done to develop resistant strains to burrowing nematodes, Panama Disease and gray spore. Tissue culture is also used to rapidly multiply the hybrid progeny.

They have had some success with cooking bananas and plantains, but not too much yet with the dessert banana. Plantains are a staple food for 70 million people!. Cooking bananas are short and fat and have less aroma than the plantain, which is long.

"Lychee and Longan Workshop" by Dr. Noble Hendrix

The subtropical family Sapindaceae includes Lychee, Longan, Rambutan and Pulasan.. Lychees were imported to the US in the early 1800's and were grown in Florida by 1883. There are currently about 1000 acres of commercial lychee in Florida. Problems in cultivation include: nutritional deficiencies due to calcareous rock and acid sand, cold and wind. These plants need a high organic soil.

The 'Mauritius' variety of lychee is harvested in late May, 'Brewster' in June. Flowers are produced in December through February. Lychees are alternate bearers. This may be due to genetics, climate, or environment. In an attempt to induce flowering, Dr. Hendrix is experimenting with stopping irrigation in October to induce dormancy, and then restarting the water when the spikes form. Lychees produce few fruit per panicle whereas longans produce many. To get large fruit on longans it is necessary to prune fruit panicle, removing the central fruits when they are real small.

Prepare rows 25 ft apart, with plants set 28 ft apart in a staggered planting, so that the trees are 29 ft away from all other trees. (Other growers plant the trees as close as 18 ft apart.) The trees are pruned on the top and sides immediately following the crop to a center height of 15 ft, side height of 12 ft; the trees look like pentagons on a stick. Weeds are controlled with roundup. Pruning is to reduce tree height so the fruit can be easily harvested, and also to open up the canopy to light. To chase off birds: stand a 6 ft rebar in the field hung with metal pie plates. This makes a noise in the wind and shines in the sunlight, which may scare off the feathered fruit predators.

"Planting, Fertilizing Tropical Fruit Trees" by Gene Joyner

The macronutrients plants need include Carbon (C), Hydrogen (H), Oxygen (O), which they get from the air and water, Nitrogen (N), Phosphorous (P), Potassium (K), Magnesium (Mg), Sulfur (S), and Calcium (Ca), which they get from the soil. Micronutrients, also from the soil, include Iron (Fe), Manganese (Mn), Zinc (Zn), Copper (Cu), Boron (B), Molybdenum (Mo), and Chlorine (Cl^-, chloride). These elements are picked up by the root hairs. Most of the root mass is for stabilization, anchorage, not for nutrient absorption.

Fertilizer must be put in contact with the entire root system, not just close to the trunk of the tree. Spread the fertilizer under the entire canopy. There are actually very few absorbing root hairs up close to the trunk. Start spreading about 18" from the trunk and go all around the trunk up to 10 ft away! An alkaline pH limits micronutrient availability and thus it is best to apply micronutrients as a foliar spray. However, foliar sprays are short lived and must be repeated frequently. It is also difficult to reach adequately on large trees and there is a problem with leaf burn. The best soil pH is 6 to 7. Most water in Florida is alkaline and extensive irrigation can change the soil pH. Soil application of dry granular products is OK, but they must be watered in. There may be a problem with micronutrient availability if the soil is very alkaline.

The percent of N, P, K, (Mg) is written on the fertilizer bag. Nitrate nitrogen (NO_3^-) is the most soluble. It gives a quick response, but also disappears quickly. Ammoniacal nitrogen must be broken down in the soil before the plant can absorb it, and is thus slower to reach the plant and slower to be used up. The lower the percent chloride, the better for the plant. For 6-6-6 fertilizer, in a 100 pound bag, there is 18 pounds of nutrients and the rest is inert filler, such as sand. This is because the nutrients when concentrated are caustic and it is easy to kill a plant with them. For fruit trees use a 4-6-8 or 6-8-8 fertilizer and use 3/4 to 1 1/2 pound per 1" of trunk diameter 3 to 4 times a year. Trees with multiple cropping should be fertilized immediately after each fruiting.

Fertilizer is necessary even if you use mulch, but you don't need to do it as often. The mulch keeps the nutrients at the surface longer then when they are sprinkled on pure sandy soil. Sprinkle the fertilizer on top of the mulch and then irrigate, or apply just before a rainfall. Grass and sod can take up to 25% of the applied fertilizer, therefore sod should be cut away from the trunk. To control grass you can use lots of mulch. Use anything you can get your hands on that's free! The top can be dressed up with a "pretty" mulch, such as cedar. Planting right up against a house foundation is not good because of the zone of alkalinity around the house. The same applies to shell roads.

Iron deficiency is important in Florida. It is influenced by pH. Younger leaves show the problem first: veins are dark green while the rest of the leaf is very pale. It then turns all white. After applying iron, the new leaves will be OK, but the old ones will not recover and become green. Manganese deficiency appears as wider strips of white along the main veins. It is often co-deficient with iron. With a Magnesium problem, the bottom of the leaf is dark green, but the tips and edge of the leaf are white. As it becomes more severe, the green decreases and most of the leaf turns yellow-white and the leaves start to fall.

For most of the mineral deficiencies, the old leaves will not correct after treatment. The problem usually occurs in either the old or the new leaves, but not both at the same time. When zinc is deficient, the new leaves are small and curled, but not discolored. Molybdenum affects the younger leaves. They become strap-like, thick and rough, with an irregular shape, wrinkled with prominent venation.

Tip burn may be due to a potassium deficiency, or to wind, salt wind, or too much rain. This is common on lychee because the young leaf is very fragile and susceptible to strong winds when it first comes out. Too much fertilizer can cause growth cracks (vertical splits) in the trunk. This happens on thin bark young trees It is mostly cosmetic, but can be an entry route for disease.

"Important New Fruit Crop Insects and Diseases in Florida" by Dr. Robert McMillan

Mummified fruit on annonas is caused by *Diploidia* sp, a fungus, or a chalcid fly (which produces a bore hole). Two fungi are common in the tropics: Cercospora and Anthracnose. Anthracnose produces a pinkish surface with a spore producing sticky mass. The spores are transported by water (rain). Annonas are also susceptible to rust leaf spot, which also attacks Allspice. Spray with sulfur; do not use oil when spraying with sulfur, as it makes it toxic.

Baking soda ($NaHCO_3$) can be used as a fungicide against flower blight and anthracnose. Use 50 gram per gallon, or as a dust; horticultural oils may be added to the water (1%).

When avocado leaves get pale and hang down limp, dropping off the branch tips, the cause is often root rot. This is due to a fungus which occurs when there is standing water. The problem is not the water, it is the phytopthera fungus dispersed by the water.

(Rare Fruit Conference notes continued next month.)

EDITORIAL

"Soil, Water, Fertilizer & Magic" by Winston Kao, who introduced himself as an experimenter and an inventor. Unfortunately, the tape recorder failed to record his presentation. However, your newsletter editors wish to make some comments on his talk. He spoke of the necessity of improving our impoverished sandy soil in Florida with organic compost, mulch and manures, as well as the desirability of watering with good water, such as rain water, and the disadvantages of tap water and well water with its abundance of minerals and additives. He spoke of the advantages of natural organic fertilizers compared to the use of commercial fertilizers from Home Depot, Monsanto and Sunnyland Corp. He also spoke of a pseudo-magical device which will treat water that passes through it and miraculously solve all our problems of insect pests, fungus, scale, algae, bacteria and virus, calcium deposits in water heaters and pipes, etc., etc. Growing things should be so simple! Especially when it costs $750 to buy a 1/2" model.

Actually, this device has been around in one form or another for over 40 years. One of us first became aware of it in 1957 while working for Tampa Armature Works as an air conditioning engineer. At that time, Tampa Armature Works serviced stores of several large chains such as JC Penney & Lerners. There were no air cooled systems at the time; all air conditioning systems used cooling towers which required periodic maintenance to eliminate the algae and deposits that accumulated in the cooling tower, and in spite of this the condensers regularly scaled up and required cleaning with acids or physical wire tube brushes.

At that time there appeared on the market, under the trade name of Avis, a water conditioning device similar to the one that Winston is referring to. The device was accompanied by literature extolling its ability to clean water and backed up by letters from several "reliable" sources. Company engineers from JC Penney, Lerners, Woolworth's and others bought the story and untold thousands of the devices were installed on cooling towers around the entire country. Eventually, however, people became aware that the device did absolutely nothing and a lot of intelligent engineers had to admit that they had been fooled. How could this happen? How could intelligent, educated engineers fall for this kind of thing? It is just human nature. They so desperately wanted it to work that they actually believed for a time that it was actually working. Only after it was proven conclusively that the device did nothing were they able to accept the fact. No simple or complex catalyst will neutralize the salt in salt water, as well as add oxygen to water to change it from anaerobic to aerobic, kill bacteria, fungi, lichens, algae and insect pests and change the pH of the water. How we wish that such magic was possible! However, we'll have to go on watching the pH of our soil, fighting the bugs, bacteria, virus and fungi, chemically or organically as we see fit, using the best fertilizers we can find and improving the soil and mulching. Somehow, that seems like it may be more fun anyway and maybe we can save the $750.

Raffle: July 1996

Plant Name	Donor	Winner
Akebia Chocolate Vine	Novak	Betty Fairbanks
Camphor	Novak	Gene ?
Grewia asiatica	Novak	Bob Heath
Ubos	Novak	Zmoda
Satin leaf	Novak	Gyula Nemeth
Flacourtia rukam Bitungol	Novak	Gyula Nemeth
Flacourtia rukam Bitungol	Novak	Lou Abolida
Inga (Costa Rrica)	Stark	Ed Musgrave
Blackberry Jam Fruit	Stark	Sandra Johnston
Apple Banana	Phil Brown	Zmoda
Ice Cram Banana	Phil Brown	Stephen Bechdolt
Rajapuri Banana	Phil Brown	Joseph Divan
Olive seedling	Zmoda	Betty Fairbanks
Rangpur Lime	Zmoda	Sally Lee
Rangpur Lime	Zmoda	Ron Opat
Ginkgo biloba	Bob Heath	Ricky Maseda
Passion Fruit	Bob Heath	Jerry Tennant
Papaya	Bob Heath	Paul Barry
Mulberry	Bob Heath	Ron Opat
Atemoya	Bob Heath	Jerry Tennant
Tree Basil	Bob Heath	Ron Opat
Anise	Bob Heath	Ron Opat
Fig	Born	Amoda
Namwah Banana	Baker	Stark
Namwah Banana	Baker	Jim Davis
Lychee	Wells	Lou Arbolida
Carambola	Sam Ramirez	Jerry Tennant
Cuban Oreganp	Ricky Maseda	Betty Morris
Lemon Grass	Ricky Maseda	?
Aloe	Ricky Maseda	Sherry Baker
Plantain	Ricky Maseda	Betty Morris
Citrosa	Ricky Maseda	Gain Stearns
Unknown	Gyula Nemeth	Lou
Unknown (2)	Gyula Nemeth	??
Roselle	Elaine Sarrasin	John Bell
Lychee	Sherry Baker	Lou
Pineapple guava (2)	?	Ed Musgrave

Tasting Table: July, 1996

Novak: Plantain Chips; Tropical Cupcakes; Fig Jam
Sherry Baker: Cinamon Coffee Cake
Amyot: Banana Cake; Mango Salsa
Sarasin: Calabaza Baked Pudding
Janet Conard: Friendship Cake
Pat Jean: Grapes
Stark: Limequatade
Mills: Chocolate Cake
Musgraves: Carrot Cake

Thank You Thank You Thank You

To: John Bell for mowing the field, Fred Born for donating pots, and to Charles Novak for growing all those really neat seedlings and giving them away to members.

What's Happening

July-August, 1997

by Paul Zmoda

This is Banana weather. These large herbaceous plants will grow extremely well with all the heat and rain we've been having if you remember to feed them well. Nothing is sadder to see than a malnourished banana barely clinging to life. Pile on the compost and manure of your choice and occasionally sprinkle on some fertilizer. This is what keeps them happy and healthy.

Bananas grow best in full sun, but this is not an absolute necessity. They can produce fairly well in the filtered shade provided by large trees which will also give them some frost protection in winter.

It seems that the spraying for the Mediterranean fruit fly is also controlling the Caribbean fruit fly as well. I haven't seen one since the spraying began and my cattleya guavas are in fine shape this year and quite delicious too. The spray program is having no noticeable effect on the many types of local caterpillars; in fact, I have never had so many infest my passifloras.

FREE to a good home: three seedling loquat trees. These are different types which sprouted from seed brought back from Israel by member Edith Freedman. I would be interested in their growth and future fruit quality. Call me at (813)932-2469 if you have a suitable site for them.

New plantings: Figs, Apple Banana, Feijoas, Downy Rosemyrtle, Citrus, Guavas, Passionfruits, Olives and Chinese Pistachio Nuts.

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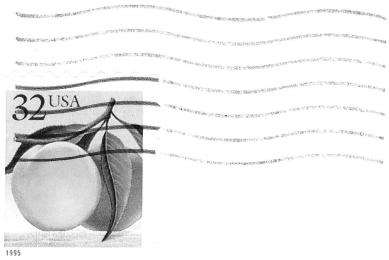

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