



NEWSLETTER

JULY 1988

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

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(INCLUDING RENEWALS)

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

NEXT MEETING - - - - - JULY 10, 1988

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 - - - - - "GROWING LYCHEES" BY L. G. ALLEN.
Mr. Allen is a lychee grower in Bradenton,
Florida. He has a small grove and has
been experimenting with several varieties
over the years.
He will be accompanied by Ray Jones,
president of the Manatee County Chapter.
Come to the meeting for valuable infor-
mation, good food, the raffle and a
pleasant social hour.

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June Hospitality Table:

Al Hendry: Mango chutney, banana nut bread, cookies
Arnold & Lillian Stark: Banana fruit bread
Janet Conard: Papaya juice, peanut butter & banana cookies
Joan Murrie: Papaya chunks
Irene Rubenstein: Calamondin squares
Nels Gullerud: Key lime pies
Bob Heath: Centerpiece

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WATER - THE CUP OF LIFE by David E. Bracciano

David Bracciano works for the West Coast Regional Water Authority, which covers the three-county area, Pinellas, Hillsborough and Pasco Counties. In this three-county area, most of the drinking water comes from underground waters, which means it comes from the aquifer through wells. The City of Tampa is the only major water supplier that gets its water from surface water, which is the Hillsborough River, and Tampa augments its supplies from ground water.

The West Coast Regional Water Authority was formed during the early 1970's because of a need to better regulate water supplies. Tampa and St. Petersburg had experienced considerable growth during the 1930's. During that time, the cities put in wells right near the population centers, and of course, shortly thereafter, they began to experience overdraft. This means they were pulling salt water into the supply wells from the Gulf, so it was necessary to move their wells further inland away from the salt water. Then the City of Tampa, about 1940, put in the Hillsborough River dam. It was built on top of the old Tampa Electric Company dam which had been destroyed sometime before. The dam creates a reservoir which is the main source of water for the City of Tampa. The City of St. Petersburg moved their wells into northeast Pinellas County and into northwest Hillsborough County. In the early 1970's Pinellas County and St. Petersburg purchased land in Pasco County to install new well fields. One site was the Crossbar Ranch. At that time, Pasco County was very unhappy that Pinellas was taking the water out of their county. They felt as though it was their water and it was being given to someone else. In 1974, the Regional Water Authority was formed to alleviate some of these water concerns. The Water Authority is a supplier of water for the five member authorities that make it up, the Pinellas County Board of Commissioners, the St. Petersburg City Council, Pasco County Board of Commissioners, Tampa City Council, and Hillsborough County Board of Commissioners. The Authority does not distribute water, but it provides the well fields and other sources. The member governments actually distribute all the water from the well fields that the Authority provides.

When the Authority looks at a possible supply source area, they put in a series of monitor wells to determine the availability of water and the quality. Also, they determine what the pressure is in the aquifer or, in other words, what the rise in the wells will be. Areas that have a large fluctuation in water level in the wells are poor areas for well fields. They also look at leakage, which means the amount of water that leaks down from the surface into the permanent aquifer and to a lesser degree, they consider water quality. They also look at the desirability of resting well fields. This means having more than sufficient wells to supply the water and being able to leave a well field unpumped to recharge the aquifer and the wetlands that surround the well field. They are also looking at well field rehabilitation, which requires the acidizing of wells to remove the calcium carbonate and other debris that is interfering with water flow so as to make the well work a little longer. They are also looking into the possibility of recharging the aquifer which simply means taking surface water and pumping it in to the aquifer where the water table has dropped. This is probably a very long term process.

A lot of consideration is also being given to waste water re-use. Pinellas County has an excellent program for waste water re-use, as do Hillsborough County and the City of Tampa.

The surface water and the Florida aquifer are separated by a confinement layer which is a layer of clay which separates the artesian aquifer from the water table aquifer. The artesian aquifer is actually under pressure. Major recharge areas of the artesian aquifer are areas like the Green Swamp, which charges water into the artesian aquifer and causes the pressure. Springs represent a breach in that confinement layer which allows water to rise due to the pressure, and allows the artesian aquifer to bubble out onto the surface. Sulphur Springs,

Weekie Wachee Springs, Silver Springs are all examples of the water that comes from the artesian aquifer. The Crossbar Ranch is approximately 8500 acres and is owned by Pinellas County. Cypress Creek well field water also goes to Pinellas County, the City of St. Petersburg and Pasco County.

The Authority spends a lot of time and money on water quality. They have their own laboratory where they do bacterial analysis on water sources. Iron bacteria is a bacteria that is normally found in shallow wells. It can be controlled by chlorination, but in wells from the aquifer, because they are anaerobic, there is no iron bacteria existing there.

We were shown an atomic absorption meter which costs about \$70,000.00 and is used for testing for metals in the water. By putting a sample of water in the machine, they can determine in parts per billion, the amount of iron, lead, cadmium, or other metals are actually in the water. Then we were shown a gas chromatograph, which identifies organic compounds in the water, such as vinyl-chloride, carbon tetrachloride and similar compounds. We also were presented with a liquid chromatograph, which can identify long chain compounds which would not be detected by the gas chromatograph. We also saw a gas chromatograph mass spectrometer. It costs approximately \$180,000.00 and can detect over 40,000 different compounds in the water. It has a room all for itself. It can identify and qualify compounds that are known and some that are unknown. By the year 2000, they anticipate using the Hillsborough River reservoir with an augmentation from the Tampa Bypass Canal by pumping out of the Bypass Canal into the Hillsborough County reservoir. The Bypass Canal was constructed in the 1960's by the U.S. Army Corps of Engineers to divert flood waters from the Hillsborough River into Tampa Bay. In the process of dredging, they breached the artesian aquifer and since that water is under pressure, the Bypass Canal is being fed by underground springs from the aquifer.

They are also studying the possibility of using the treated water from the Hooker Point Sewage Treatment Plant, running it through a supplementary treatment plant, and then pumping it in to the Tampa Bypass Canal, where it would eventually be pumped across the structures that separate the Hillsborough River reservoir from the Bypass Canal, and become part of the Tampa water supply.

The Southwest Florida Water Management District, known as SWIFTMUD, is responsible for surface water management at the surface water levels and ground water management, which means that they monitor the amount of withdrawals that are made from the ground water. They are a regulatory agency and they regulate West Coast Regional Water Authority. The Water Authority has to go to the Southwest Florida Water Management District for a permit to withdraw water from the ground and SWFWMD will allow them to withdraw only a certain amount of water per day out of each well. SWFWMD regulates West Coast Regional Water Authority supplies. The Water Authority is also regulated by the Department of Environmental Regulation as far as water quality. Southwest Florida Water Management District regulates on quantity, D.E.R. regulates on quality. So when the Water Authority says they are meeting quality standards, they are meeting the D.E.R. standards.

* * *

What tree is always happy?

Maybe the Hawthorne!

* *

What is the wisest fruit?

How about the Elderberry!

* * *



JUNE PLANT RAFFLE

Plant Name	Donor	Name
Papaya	J. Murrie	Frank Honeycutt
Papaya	J. Murrie	Maya
Papaya	B. Heath	?
Cattleya Guava	B. Heath	Maya
Grumichama	B. Heath	Maya
Orlando Seedless Grape	RFCI	Janet Conard
Cactus	Pearl Nelson	Maya
Malanga	Nels Gullerud	M. Brandies
Lychee Seedling	Nels Gullerud	M. Brandies
Pink Quagah	A. Mendez	M. Brandies
Momocillo	A. Mendez	Alarcon
Atemoya	A. Mendez	Al Roberts
Lavender	M. Brandies	Maya
Mint	M. Brandies	B. Heath
Tansy	M. Brandies	Maya
Pennyroyal	M. Brandies	J. Murrie

Recipe of the Month

CALAMONDIN BARS (Irene Rubenstein)

2 cups flour
 1/2 cup powdered sugar
 1-1/2 sticks margarine or butter
 4 eggs
 2 cups sugar
 dash salt
 1/3 cup calamondin juice
 powdered sugar

In a bowl combine the flour and the 1/2 cup powdered sugar. Cut in the margarine. Press mixture into a 13 x 9 inch baking pan and bake in a 350° oven for 20 to 25 minutes, or until golden.

Meanwhile, beat eggs at high speed with electric mixer until light and pale yellow in color. Gradually add sugar and salt, then calamondin juice. Continue to beat at high speed. Pour over hot crust and return to oven for 20 to 25 minutes longer, or until golden. Sprinkle at once with powdered sugar. Cool. Cut into squares.

Makes about 5 dozen.

HOW TO DIG A HOLE

(from December 1981 Newsletter)

A good planting hole for your newly acquired tree need not be expensive. The following instructions will give consistently good results despite the rule of "a \$10.00 hole for a \$5.00 plant".

Dig an adequately large hole, approximately twice the diameter of the plant's root ball and up to two spades deep, if possible. The root system must not be cramped in its initial growth, needing loosened soil in which to become established. The shape of the hole should be cylindrical, not bowl-shaped. Fork over the bottom and roughen up the sides since the spade may have glazed them, thus possibly inhibiting root growth. While digging, separate the top soil and sub-soil into two piles. Then place the top soil (or sod) into the bottom of the hole. Be sure to remove and kill all grubs found in the soil. If aggressive weeds or grasses surround the hole, line the sides with thick layers of newspaper before filling. This will give the tree about a year free of competition before the paper composts. Avoid colored ink, such as comics and slick ads, as it is reputed to be rich in poisonous heavy metals.

In Florida, adding fertilizer to a planting hole is usually discouraged, but if you must, mix only a handful of 100% organic fertilizer containing trace minerals into the remaining sub-soil. Do not overdo and be certain that it is "100% organic" so as not to burn the roots. If you have compost, peat, or other thoroughly decomposed organic materials available, mix this into the subsoil, also. Never use undecomposed material as the tree could be killed by the anaerobic composting gases generated in the ground. The tree could also be killed by root rot as the ground begins to sink when the organic shrinkage occurs due to decomposition.

Add enough of this soil mix to the hole to be able to set the plant at its original depth as grown in the container. If there is any question, set the plant shallower, not deeper, as there will be a natural tendency for the filled hole to settle as time passes. Before setting the plant in the hole, fill it with water and allow it to settle (the hole, that is).

Set the plant in the hole, surrounding it with the mixed soil, all the while running water to thoroughly wet the fill. This will settle the mix as well as ensure that the root ball does not dry out due to its own moisture being blotted up by drier soil around it. Do not tamp the loose earth as that would defeat the whole process. You want the soil settled, not compacted. Most planting guides suggest a dish or saucer shaped depression in the ground around the base of the newly planted tree so as to retain water. This 'saucer' must be above ground level, not below (adjacent ground level, that is). Were it below ground level, root rot might occur.

Do stake the tree if wind is to be a problem and provide a windscreen if possible. If the plant or tree has suffered any shock due to the transplanting, provide some temporary shade. This also would be advisable if the plant had been grown under shady conditions and is now in the full sun.

How to Dig a Hole, continued:

Burlap on a support frame is one excellent method of shading. Wet the burlap to raise the humidity and to cool the air flowing through it.

Keep your new plant or tree watered during its period of establishment, at least twice a week, and water the foliage as well. Remember, in general, trees do not die, they are killed. As a grower, it is only practical that you perform an "autopsy" on each dead tree. Usually the cause of death will be found in the top 12 inches of the root system. The most common causes are: root rot, nematodes, insects in the trunk heart, and tap-root spiral due to being pot-bound at planting. All are preventable and/or treatable.

Jokes. . .

Could we call a football a passing fruit?

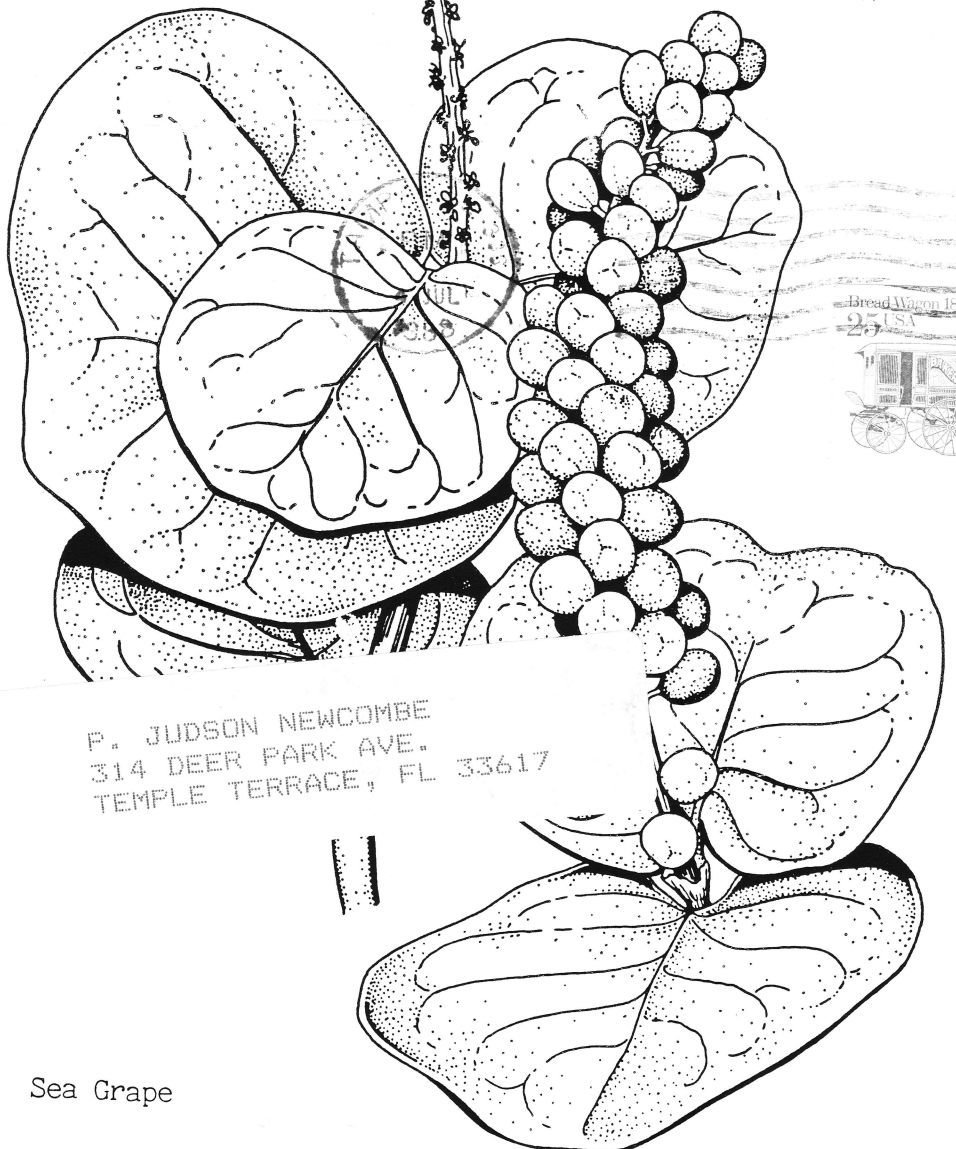
* * *

Where did Mango?

To put the caraway.



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Sea Grape