RFCI **NEWSLETTER** APRIL 1989

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

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(INCLUDING RENEWALS)

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

NEXT MEETING . . . . . APRIL 9, 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 is in rear of building. Main door will be locked. Walk around.

PROGRAM . . . . . PROPAGATION WORK SHOP - This will be an opportunity to receive valuable instruction and tips on grafting, budding, air layering and rooting provided by our own experts. This will also be an opportunity to get some of your seedlings grafted. Bring rootstock for loquat, carambola, avocado, sapodilla, white sapote, and black sapote; scion wood will be available. If you have other seedlings which you would like to have grafted, call Bob Heath at 289-1068 in the evening for availability of scions.

NOTE: DO NOT BRING ANY CITRUS.

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CONGRATULATIONS TO AL HENDRY, who has been invited to head up the Tropical Fruit Tree Research Center based in Antarctica . . . . . April Fool!

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NEW MEMBERS:

W.B. & MARIA MENDEZ, 4115 Crosswater Drive, Tampa FL 33615 (884-0529)

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BOB HEATH discovered a new variety of delicious solanum growing in his yard. As soon as he recovers from his stomach poisoning he'll tell us about it... April Fool!

STRAWBERRIES By Dr. Craig Chandler

Dr. Chandler is a horticultural research scientist at the Agricultural Research and Education Center in Dover, an extension of the research center at the University of Florida in Gainesville, one of the various centers scattered throughout the State. At the moment, the three faculty members there are working almost exclusively on strawberries. This summer they expect to put in a blueberry planting at their station in cooperation with some of the other scientists from Gainesville.

Strawberries are not exactly rare, being one of the most widely grown fruits in the world and probably one of the most popular small fruits. Strawberries are a very adaptable crop and are grown in all 50 states of the United States and many of the countries of the world. It is a very nutritious fruit and has as much vitamin C per gram of weight as oranges.

The state of Florida is number two in the nation in production of strawberries, following far behind California, which has considerably more acreage devoted to their production. Presently between 5,000 and 6,000 acres is being used for strawberry production in Florida, most of which is within a 40 mile radius of Plant City, probably the densest concentration of strawberries growing in the United States. Florida is the major supplier of winter strawberries, California's major production occurring in late March and April, after Florida strawberries are on the decline. The strawberries found in the markets throughout the United States in December, January and February are grown in Florida.

The strawberry is a herbaceous perennial in the rose family, a family with many other fruit crops. Apples, pears, peaches, plums, blackberries and raspberries are a few of those. In Florida strawberries are grown as an annual, being planted in October, grown thru the winter, and destroyed in the spring, and new plants put in again in October. In more northern areas, strawberries are grown as a perennial. They are normally planted in the spring, and grown through the summer. Any flowers that form are pulled off and the plants are allowed to form a ground cover. The fruit is harvested the following spring. Strawberries are a cool weather crop; they don't like hot weather. In Florida, because of the extended summer, we have a lot of diseases develop if we try to grow the plants through the summer. The reason why we don't grow strawberries through the summer in central Florida is that most strawberry cultivars are photoperiodic, which means they are affected by day length, producing flowers and fruit under short day lengths, which are days with less than 12 hours of sunlight, the winter months. During the long days of summer they produce stolens or runners which produce the daughter plants.

The modern strawberry is a man-made species and is a relatively new crop. Most of our fruit crops have been cultivated for thousands of years but the modern strawberry as we know it has only been cultivated for about 200 years. The species name is Fragaria ananasa, which is a hybrid between two native American species. The two species are Fragaria chiloensis and Fragaria virginiana. Virginiana is native to the woods of New England. The chiloensis is native to the west coast from Patagonia to Peru and California to Alaska, as well as in the mountains of Hawaii. The strange part of this is that the actual hybridization of these two strawberry cultivar species took place in Europe. Five plants from Chile were taken to Europe in 1714 and there crossed with the virginiana from New England. The hybrid produced large fruit as well as firmer berries. Isaac Walton once remarked, "Doubtless, God could have made a better berry, but doubtless, God never did." The original species have both male and female plants but a curious thing occurred when they were hybridized, in that the hybrid produces both male and female flowers.

There is also a variety of strawberry called ever bearing, which are day neutral, which means that they are not as affected by the length of the day as are most strawberries. They will tend to flower and fruit regardless of the length of the day.

The strawberry is propagated vegetatively as shown in Figure 1, where a stolen or runner is growing from the mother plant and a daughter plant is emerging from that runner. The daughter plant, of course, is genetically identical to the mother plant. In the north, at certain times, the plants are allowed to produce daughter plants through the summer and in the fall all the strawberry plants are dug. The daughter plants are separated from the mother plant and sent to the farmers throughout the United States for the next season's crop. Figure 2 shows a cluster of fruit on a single stem. The little circles represent the seed which is actually the fruit of the strawberry. The fleshy part of the strawberry, the part we eat, is really stem tissue. Its true fruit are the little nut-like berries on the surface of the strawberry. The actual seed is within these little fruit. The strawberry in the middle in Figure 2 is what we call the primary berry and it will be the largest berry on the cluster. The two adjoining berries are called secondary and the other two are called tertiary, and will be progressively smaller than the primary.

Strawberries are location specific, which means those berries produced in the north and adapted to the north will not do well in the south and vice versa.

The most important objective in the breeding program in Dover is fruit quality. A strawberry that is ideal in all other qualities but lacking in fruit quality is not going to be well accepted by the public. The most important factor in fruit quality is flavor. The next objective they have is productivity. A strawberry with ideal qualities including good fruit quality but which is lacking in productivity or is productive at the wrong time is not going to be acceptable to the grower, who demands high productivity at the right time of the year. The third objective is to develop varieties that are easy to harvest. The strawberries grown in Florida are hand harvested. The field workers have to be housed, which is very costly. The growers like strawberries that are easy to pick and require fewer pickers per acre of crop.

Disease resistance: Florida has an ideal climate for many diseases. There are more diseases of strawberries in Florida than anywhere else, so we are very interested in developing varieties that have resistance to diseases that not only affect the plant itself but also the fruit. Development of all these characteristics requires crossing of complimentary varieties in an attempt to incorporate disease resistance, productivity, ease of picking and other qualities which appear in individual varieties. For instance, we may have a variety that has good fruit quality but very poor disease resistance and another variety with good disease resistance but poor quality, and in crossing these, we attempt to get high fruit quality and disease resistance in the same plant. Of course, outstanding offspring from crossing different varieties are very rare. Usually, the results produce lower quality with fruit not as good as either of the parents, so they have to grow tremendous numbers of seedlings to expect to obtain a few outstanding varieties, seedlings that have the best combination of good qualities from both parents. It takes usually a minimum of about seven years from the time a desirable variety is selected until it is released to the growers. From seed to a producing plant is no longer than a year. Seeds can be planted in the spring and the plant will produce fruit the following winter.

Also, strawberries tissue culture very easily compared to a lot of other fruit crops and the Dover workers expect to get into tissue culture in the near future to rapidly multiply those clones that they feel are desirable. Anthracnose is the major disease that they are concerned with at this point. It causes a crown rot which kills the plant, as well as fruit rot. It is ubiquitous in this area and they get a lot of infection from anthracnose during the summer.

The backbone of the strawberry industry in Florida is a variety called Selva which was developed in California. It's a very early variety, actually producing some fruit in November. It is easy to harvest and ships well, but it's deficient in flavor and it is not a heavy producer. But because it produces early in the season when prices are high, it provides the growers a good return. They have several selections at the research center that look promising. One is the No. 79-1126. It has more flavor than Selva and is more productive. Also it is firm so it should ship well. It is early but maybe not as early as Selva and it is a little more difficult to harvest because it produces a lot of leaves which tend to hide the berries. Another selection that looks promising is No. 82-1452. It appears to have potential for local markets and U-pick. It has good flavor, high sugar content; it's firm and has a good color, with a compact bush and fruit that are easy to find. Its most critical bad point is its tendency to crack right under the cap. It's a dry crack that doesn't seem to cause the berry to rot but it's not as acceptable for marketing.

At this point Dr. Chandler showed us several slides of the strawberries they are working on in Dover.

Fig. 1

Fig. 2

MARCH PLANT DRAWING:

PLANT	DONOR	WINNER
Brown Turkey Fig	Frank Honeycutt	Harry Klaus
Celeste Fig	Frank Honeycutt	Monica Brandies
4 Cherry Tomato	Bruce Beasor	Frank Pupello
3 Cherry Tomato	Bruce Beasor	Bob Heath
3 Cherry Tomato	Bruce Beasor	A & L Stark
Surinam Cherry	Bruce Beasor	Al Hendry
Hot Pepper	Bruce Beasor	Lillie B. Simmons
Hot Pepper	Bruce Beasor	Frank Tintera
Sicily Loquat	Frank Pupello	Pearl Nelson
Papaya	Frank Pupello	Glen Myrie
Papaya	Frank Pupello	Monica Brandies
Pineapple	Frank Pupello	Steve / Molly Charlton
Acacia	Frank Pupello	Kay Netscher
Celeste Fig	Frank Tintera	Bobbie Puls
Celeste Fig	Frank Tintera	Jo Ann Cimino
Peruvian Guava	Frank Tintera	Jo Ann Cimino
Rheedia	A & L Stark	Lloyd Shipley
Avocado	Molly / Steve Charlton	Frank Tintera
Bromeliad	Jo Ann Cimino	Lillie B. Simmons
Annona	Armando Mendez	Kay Netscher
Black Surinam Cherry	Armando Mendez	Frank Honeycutt
Spanish Lime	Armando Mendez	Frank Honeycutt
Orlando Seedless Grape	RFCI	Pearl Nelson
Grumichama	RFCI	Bill Ryland
10 Carambola fruit	Bob Heath	Jim Murrie
Grumichama	Bob Heath	Al Roberts
Surinam Cherry	Bob Heath	Walter Vines
Pineapple	Bob Heath	Janet Conard
Dixie Grape	Lloyd Shipley	Jim Murrie
Yellow Plum	Lillie B. Simmons	Monica Brandies
Fennel	????????	Bruce Beasor

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ARNOLD STARK hatched his eggplant and produced gooseberries. . . . . April Fool!

HERB HILL'S Bonsai Jak Fruit committed Hari-Kari by overfruiting. . .April Fool!

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HOSPITALITY TABLE:

Bill Ryland - Babaco jam
Joan Murrie - Gin & Lime jelly & crackers & Papaya chunks
Lillie B. Simmons - Guava syrup
Bruce Beasor - Lemon Bread
Janet Conard - Banana Nut cake
Romagene Vaccaro - Carambola jam & crackers

MESSAGE FROM THE PRESIDENT

The tropical fruit industry in Dade County produces $50 million a year from over 25,000 acres of land. The "soil" is nothing but rock and some of the poorest in a state without much good agricultural soil. It is, however, warm and frost free and has, for now at least, adequate water.

The avocado, lime and mango have been grown for many years and growers have organizations such as the Mango Forum to represent them.

Other fruit now grown commercially are carambola, sugar apple, passion fruit, lychee, longan and a few others. The plantings are mostly small, some only back yards. These fruit are grown for sale around the world and have been for centuries but the technology is not always transferrable to Dade County. Legal pesticides are not available because of cost of registration and a small market. The market is mostly ethnic because of lack of information by the general public.

Recently Chris Rollins and some growers met and organized The Tropical Fruit Growers of South Florida, Inc. to work on some of their problems. The group will attempt to set up an Advisory Council through the legislature to advise the Commissioner of Agriculture on tropical fruit. Tasting booths will be set up in stores to educate the public on fruit. A research grove of carambolas has been set up at the Tropical Research and Education Center at Homestead.

Membership is open to anyone interested. Contact Jonathan Crane Ph.D at Florida Cooperative Extension Service, 18710 S.W. 288th St., Homestead, Fla. 33030.

Many of the tropical fruits grown in Dade will grow here and some might grow better due to our better soil, not good but better than theirs, and cooler winters, many times too cool, though.

Organizations like ours serve to introduce new varieties and useful cultural practice. So even if you do suffer set-backs from weather and pests, you are collecting information on new fruit for this area and possibly we can have some commercial planting of tropical fruit here.

Good news on citrus: The Sun Chu Sha Mandarin root stock from China shows promise as a flat woods root stock. It has shown a high survival rate and resistance against blight, foot rot and tristeza. A limited supply of budwood will be available in the spring. This wood will produce seeds for planting out for root stock. For information contact Don Hutchinson at USDA Research Center, 2120 Camden Road, Orlando FL 32803.

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ANNOUNCEMENT: The U.S. Department of the Interior has just placed sandspurs on the endangered species list. Killing any of these noxious weeds may now result in a prison term of not less than 10 years. . . . . April Fool!

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It has recently been discovered that fruit contain pectin and fructose, which are only hazardous to your health if you are a strict carnivore! (April Fool!)

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Using tissue culture techniques, Walter Vines has crossed a lychee with a potato. At last, cold protection for fruit - it's produced underground!
(April Fool!)

TOM HUGHES has developed a mutant grape that is as big as an apple and is seedless. . . April Fool!

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RECIPE OF THE MONTH

Ann's Lemon Bread (from Bruce Beasor)

4 Tbs margarine	1 tsp baking powder
1 cup sugar; 1/3 cup sugar	1/2 tsp salt
2 eggs	1-1/2 cups flour
1/2 cup milk	2 lemons

Cream margarine with one cup sugar. Add 2 beaten eggs and milk. Sift together baking powder, salt, and flour. Add to egg mixture with the grated rind of one lemon. Bake in large loaf pan for 50 minutes at 350^{0}. Combine 1/3 cup sugar with juice of one lemon and drizzle over warm loaf.

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THE TREASURER has sent a postcard from Brazil thanking us for her trip around the world. . . . . April Fool!

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CELSO GOMEZ-SANCHEZ now has 4917 varieties of persimmon growing on 1/3 acre. For most of these varieties, a pollinator has yet to be identified... April Fool!

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ELECTION

Our annual election was held at the March meeting in accordance with the bylaws. Fourteen members were elected to the Board of Directors for the following fiscal year. From this group at the following Board Meeting the new slate of officers was selected. The new Board members are as follows:

Bruce Beasor	Frank Honeycutt
Monica Brandies	Armando Mendez
Edith Freeman	Kay Netscher
Celso Gomez-Sanchez	Bill Ryland
Nels Gullerud	Arnold Stark
Bob Heath	Lillian Stark
Al Hendry	Walter Vines

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HAROLD SEEKINS' wood collection has sprouted and fruited. He needs the following for his collection: Banana, Strawberry, and Pineapple. Donors should please realize the necessary pieces must be at least 40 inches in diameter.
(April Fool!)

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THE NEXT MEETING will be held in far more spacious quarters - the phone booth at the corner of Kennedy and Central. . . . . April Fool!

NEW SLATE OF OFFICERS:

President.....Al Hendry
Vice Presidents.....Bob Heath & Arnold Stark
Treasurer.....Kay Netscher
Recording Secretary.....Lillian Stark
Corresponding Secretaries.....Edith Freeman & Bob Heath

Membership Chairperson.....Monica Brandies
Library Chairperson.....Frank Honeycutt
Plant Drawing Chairperson.....Frank Honeycutt
Program Chairperson.....Al Hendry
Plant Sale Chairpersons.....Bob Heath & Arnold Stark
Botanical Council Liaison.....Edith Freeman

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FRANK HONEYCUTT made a mistake last month and raffled off the Library. We could not read the winner's name on the plant list so would whoever won it please return it?! (April Fool!)

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The first International Symposium on Orange Berry Cultivation will be held February 30, 1990 at White Sands, Nevada. . . . . (April Fool!)

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Tampa Bay Chapter
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FIRST CLASS MAIL

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