



NEWSLETTER

AUGUST 1982

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

CHAPTER MAIL ADDRESS: P.O. BOX 16003, TAMPA, FL 33687

MEETINGS ARE HELD AT 2:00 PM, THE SECOND SUNDAY OF THE MONTH, AT THE SEFFNER AGRICULTURAL BUILDING, UNLESS OTHERWISE NOTED

NEXT MEETING..... SUNDAY, AUGUST 8, 1982 AT 2:00 PM

MEETING PLACE..... HUGHES' VINEYARD, McINTOSH ROAD, DOVER
USE EXIT 9 ON I-4 AND TURN LEFT (WEST)
JUST PAST THE CHEVRON STATION ON
McINTOSH ROAD

THE PROGRAM.....Following a short business meeting, members will be free to explore the vineyards and to pick their own grapes per Tom Hughes' instructions. You will be charged for the grapes you pick, as the general public will be right alongside you, picking also. It will be in the height of the muscadine harvest and Sunday is a regular business day at the vineyards at that time of year. Tom also has named varieties of grape plants for sale.

Our meeting will be held in Tom's gazebo and Betty Dickson will set up a fruit display table there. Please bring sample quantities of any fruit (ripe, that is) that you can spare, the rarer the better. Betty is trying to arrange TV news coverage of the meeting in order to kick off our Plant Sale publicity campaign. It will help immensely to have a wide variety of fruit to show the camera(s) if we are lucky enough to get coverage. (Last year we were pre-empted by a PATCO demonstration in Tampa.)

As usual, bring plants for the monthly plant drawing - and seeds for exchange, if you have any.

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NEW MEMBERS

Marion Goldich, 8967 Beacon, Fort Myers 33908, Tel. (813) 936-2940

Jack Walker, P.O. Box 10207, St. Petersburg 33733, Tel. 535-5765

REPORT OF JULY 11, 1982 PICNIC MEETING AT
EUREKA SPRINGS COUNTY PARK

The picnic meeting at Eureka Springs was a very pleasant one and the turnout larger than expected. Like at Ft. DeSoto Park, we got bumped from our planned site and ate lunch and held our meeting under the trees. The weather cooperated and, due to the high shade, it was very comfortable. Perhaps we shall do it again next year.

President Bob Heath conducted a brief business meeting with the upcoming field trip meetings and the Third Annual Plant Sale preparations being the only topics of discussion. The meeting was followed by the monthly plant drawing conducted by Bill Lester.

JULY MEETING PLANT DRAWING RESULTS

| <u>PLANT</u> | <u>DCNOR</u> | <u>WINNER</u> |
|---------------------------|------------------------|------------------------|
| White Sapote | Paul Rubenstein | Ann McDowell |
| White Sapote | Paul Rubenstein | Pat McDowell |
| Surinam Cherry | Bill Lester | Elby Pence |
| Pitaya Cactus | Bob Heath | Nancy Lester |
| Abakka Pineapple | Bob Heath | Glen Myrie |
| Plantain | Armando Mendez | Glen Myrie |
| Ladyfinger Banana | Armando Mendez | Lorraine Ball |
| Papaya | Armando Mendez | Lorraine Ball |
| Lemon Grass | Armando Mendez | Arnold & Lillian Stark |
| 'Brazos' Blackberry | Arnold & Lillian Stark | Pat McDowell |
| 'Brazos' Blackberry | Arnold & Lillian Stark | Ann McDowell |
| Mulberry | Arnold & Lillian Stark | Ann McDowell |
| Jalapeno Pepper | Mary Ellen Morrow | Theresa Heath |
| Red Variegated Banana | Tom Patterson | Glen Myrie |
| Papayas | Ray Thorndike | Theresa Heath |
| White Sapote | Ray Thorndike | Ann McDowell |
| White Sapote | Ray Thorndike | Mary Ellen Morrow |
| 'Beaumont' Guava | Ray Thorndike | Jim Calhoun |
| 'Okinawa' Peach | Ray Thorndike | Jim Calhoun |
| Mexican seedling Avocado | Ray Thorndike | Arnold & Lillian Stark |
| Muscadine Grape | Betty Pence | Glen Myrie |
| Fig | Betty Pence | Nancy Lester |
| Clerodendron (Ornamental) | Elby Pence | Arnold & Lillian Stark |
| Cereus spp. | Christine Prodanas | ? |

Welcome back to Christine Prodanas, who arrived a bit late and brought several plants, including some species of Cereus noted above. Unfortunately, none of these plants got recorded as to species name and the winner.

PLANTS FOR SALE

SEEDLINGS: Cherry of the Rio Grande, Jaboticaba, Grumichama, White Sapote, 'Beaumont' Guava, Bignay, Governors Plum, Miracle Fruit.

AIR LAYER: 'Dade' White Sapote

SLIPS: Brazilian Pineapple, Hawaiian Pineapple

Very limited quantities.

Ray Thorndike, (813)- 646-2137 (Lakeland)

BUDDING & GRAFTING CLASSES

Grace Calhoun suggested having a program on budding & grafting soon. Unfortunately, the past programs that we have had did not accomplish much and future 'hands-on' sessions are not contemplated at this time. We may have a program on propagation in March by Tim Crocker of Gainesville, but whether that will involve 'audience participation' or not has not been determined yet. The trouble with the programs that we did have lay not with the speakers, who were excellent, but with the members, who were not all that enthusiastic. There are also time limitations on Sunday afternoon and much prior preparation is necessary for a really useful 'hands-on' demonstration.

Palm Beach and Miami have found that the answer is to hold scheduled classes on dates other than regular meeting times and to require reservations for a limited number of 'students.' Classes are held at an appropriate site with grafting materials, rootstocks, scion and bud wood, etc. provided. A fee may be charged to defray expenses. Budding & grafting knives are sold by the Council at cost to members needing them.

Such classes must be held at a suitable time of year to permit successful 'takes' of the grafts on whatever cultivars are to be used. Each 'student' must perform one or more grafts himself ('hands-on' training) in order to understand the techniques and to carry home enough confidence to graft his own valuable plants later.

First, we need an organizer. Grace Calhoun very kindly volunteered. Her phone number is 961-3367. Anyone willing to help please contact her or husband, Jim. Perhaps we should make this an ad hoc committee which will organize periodic classes from now on.

Second, we need a location for the class(es). The Calhouns have invited us to use their home, which is located in North Tampa.

Third, we need expert instructors. Grace will contact local prospects. We do have members who qualify. Hopefully they will come forward and make themselves available.

Fourth, we must pick a suitable time and season. Logically, it will be on a weekend, probably a Saturday morning. Please make your preference known.

Finally, we need interested 'students'. Contact Grace Calhoun at the regular meetings or at the telephone number underlined above.

Ed. Note - While compiling a booklet based on our fruit list, I have discovered several errors and inaccuracies. So, for those who wish to correct and update their copies of the 1982 CENTRAL FLORIDA FRUIT LIST, here are a few changes (there will be more, later.)

Group I: The blueberry genus should be spelled Vaccinium.

Group II: The carob genus should be Ceratonia, NOT Castanea.

Under RUTACEAE, add Aegle marmelos = BAEL FRUIT (was Group V)

add Feronia limonia = WOOD APPLE (was Group V)

eliminate SHEKWASHA, NANSHODAIDAI & 'ICHANG' LEMON

Under GUTTIFERAE, add Garcinia livingstonei = IMBE (was Group IV)

More later.

CONCLUSION OF MAY PROGRAM: FERTILIZERS AND NUTRITIONAL DEFICIENCIES

by Gil Whitton

4. Calcium (Ca) is an essential element in plant cell walls and provides for normal transport and retention of other elements within the plant. Calcium exists in delicate balance with magnesium and potassium in the plant. Most Central Florida soils are acidic and deficient in calcium. They require lime or dolomitic limestone to raise the pH to optimum levels for plant growth. Fertilizing with potassium (K) and magnesium (Mg) in the presence of sodium (Na) may further limit the calcium available to the plant roots. Calcium is relatively immobile within a plant, not easily redistributing when deficient. Plant health requires a continuous supply of calcium. Black heart in celery, tipburn in lettuce and cabbage, blossom end rot in peppers and tomatoes, carrot cavity and fading of chlorophyll along the edges of citrus leaves, followed by early leaf drop, are all examples of calcium deficiency.
5. Magnesium (Mg) is part of the chlorophyll in all green plants and essential for photosynthesis and the activation of many growth enzymes. It is a relatively mobile element within the plant, relocating from older to younger plant tissue as the need develops. Magnesium is slightly more abundant than calcium in Florida soils, but still short of required levels. Dolomitic limestone is an excellent source of magnesium. Fertilizers and organic materials are other sources. Because of its mobility, plants exhibit magnesium deficiency symptoms in the older leaves at first. Leaf chlorosis advances from the tips and edges of leaves towards the center, progressing between the veins, which remain green. Eventually the leaves become brown and very brittle, then gradually shed.
6. Sulfur (S) is a constituent of the amino acids and hence, certain proteins. Vitamins, enzymes and co-enzymes contain sulfur. Characteristic odors and flavors of mustard, onion and garlic are sulfur compounds. Sulfur is most readily available in warm weather favoring organic matter decomposition. Sulfur deficiency is most likely in cool weather or in soils with low organic content. Deficiency symptoms are leaves with uniform chlorosis, i.e., no green veins, and plants with an overall light green color resembling the early stages of nitrogen deficiency. Symptoms, however, are more severe in young leaves. Orange, red or purple pigments may appear and leaves and plants may become stunted.
7. Manganese (Mn) is believed to activate many enzymes affecting metabolic processes. The sandy soils of Central Florida are deficient to begin with and raising the pH (sweetening the soil) will further reduce the availability of manganese. Therefore, liming to cure other problems may induce manganese deficiency. On the other hand, high levels of manganese may induce iron deficiency in plants. Low manganese levels produce symptoms similar to iron deficiency and in some plants closely simulates magnesium deficiency, except that lack of manganese affects the younger leaves, not older. Leaves may be mottled with wide, dark-green veins which narrow as the deficiency progresses. The usual cure is the soil application of manganese sulfate.
8. Iron (Fe) is essential to many organic compounds in plants and for the synthesis of chlorophyll. Florida soils are low in iron, but generally have adequate amounts for plant growth except where excessive liming has occurred (as near building foundations). Also, excessive application of copper or manganese will inhibit iron uptake by plants. The first deficiency symptoms to appear are

light yellowing of terminal leaves, similar to manganese deficiency. This progresses to overall yellowing with narrow dark-green veins. To cure, spray with chelated iron (pronounced, "key-lated") followed by an application of iron sulfate on the soil surrounding the plant. Take care with iron sulfate, as it will badly stain concrete, or any other surface.

Any restriction of root development, as by nematodes, disease, excess water, adverse temperatures or excessive nitrogen fertilization may cause iron deficiency. Also, high pH and high phosphate levels will inhibit iron availability. Adding acid peat, manure or other organic materials to the soil will increase the availability of iron to plants. Potting media or seedbed media mixes are commonly low in iron and must be supplemented.

9. Copper (Cu) is essential for growth and also activates many enzymes. A deficiency interferes with protein synthesis and causes a buildup of soluble nitrogen compounds. Excessive copper may induce iron deficiency. Toxic quantities of copper can be counteracted by applying dolomitic limestone (CaMgCO_3) or gypsum (calcium sulfate). The calcium displaces the copper and the copper is then tied up as copper carbonate or copper sulfate.
Although Central Florida sandy soils are usually lacking in copper, deficiency symptoms are relatively rare, as copper is often applied as an impurity in phosphate fertilizers. Deficiency symptoms are unusually dark-green leaves, sometimes abnormally small. Occasionally, white veins are present or wilting or "scorched" leaf tips.
10. Zinc (Zn) is essential because it controls the synthesis of an important plant growth regulator. Also, it is an enzyme activator. Most Florida soils are low in zinc and a high pH will further reduce availability. Zinc deficiency often occurs together with manganese deficiency because of the pH effect. Symptoms may closely resemble those of manganese, iron or magnesium. Lack of zinc causes stunted plants and thickened leaves. Stem internodes are much shorter than usual and chlorotic zones appear between leaf veins. On fruit trees, small leaves and internodes so short that all leaves seem to originate from one point on the stem ("rosette"). Leaf margins may be distorted into a wavy, twisted or corrugated shape. Pecan trees may develop a deep bronze cast in July or August during the nut filling period. In severe cases, twig or large branch dieback may occur the following winter.
11. Boron (B) primarily regulates the metabolism of carbohydrates in plants. Different crops have widely varying needs. The requirement for one crop can be toxic to another. Boron is relatively lacking in Florida soils. Further, it easily leaches out of sandy soils, requiring frequent applications. Mild boron deficiency may cause tip growth or terminal bud dieback and excessive sprouting of secondary buds. Progressive symptoms include thickened, wilted or curled leaves; white veins; and cracking or rotting of fruit, tubers or roots. In citrus, gum spots in the rind and excessive fruit drop are seen.
12. Molybdenum (Mo) is essential to enzyme activity in nitrogen fixation and nitrate reduction. Adjusting the pH to the range 5.5 to 6.5 will usually make adequate quantities of molybdenum available in Florida soils. Some peat and muck soils have potentially toxic levels and the pH must be kept below 5.0. Symptoms approximate nitrogen deficiency due to the interference with nitrogen transformation within the plant. Only trace amounts of molybdenum are required to cure deficiencies.
13. Oxygen (O) starvation usually occurs in flooding or in very heavy soils.
14. Chlorine (Cl) was added to the list of essential elements in 1954. It is rarely a problem in Florida, occurring naturally from salt air and rainfall plus the general use of muriate of potash (KCl) in fertilizers.

Since different plants have different nutritional requirements, the symptoms described here may not always appear. Soil tests and plant tissue analyses are the best aids to determining nutrient balance in the soil. Caution is advised in that repeated applications of copper, zinc, manganese or molybdenum may result in levels in the soil toxic to both plants and animals.

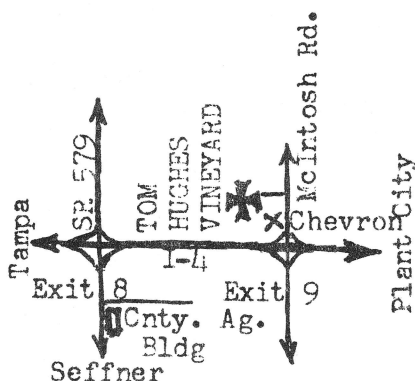
(Note - the first half of this program appeared in the June newsletter.)

FROM GENE JOYNER'S PROGRAM IN APRIL: FRUIT TREE FERTILIZATION

Most tropical fruit trees require more trace elements than normally provided for ornamentals and more than available in Florida soils. During the first year after planting, apply either a general (6-6-6) or a fruit tree type (e.g., citrus & avocado) fertilizer with a heavy concentration of trace minerals every 6-8 weeks. When a tree starts to bear, even if in the second year, reduce the nitrogen content of the fertilizer application to levels such as is found in the citrus & avocado fertilizer (4%). Also, reduce the frequency of application to bearing trees. Once every 3-4 months is adequate. A nutritional spray is good, especially when the soil pH is high and locks up minerals applied to the ground around the tree. You may have to lower the pH by applying wettable sulfur in order to permit the tree to take up needed minerals.

Ray Thorndike, Newsletter Editor

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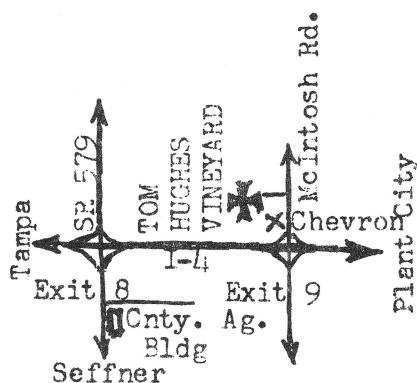
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