RFCI **NEWSLETTER** JANUARY 1994

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

EDITORIAL COMMITTEE: BOB HEATH
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PRESIDENT: SHERRY BAKER CHAPTER MAIL ADDRESS: 313 PRUETT RD, SEFFNER FL 33584 (INCLUDING RENEWALS)

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

NEXT MEETING * * * * * * * JANUARY 9 1994

MEETING PLACE * * * * * * * RARE FRUIT COUNCIL CLUBHOUSE. 313 PRUETT ROAD, 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 PROGRAM THIS MONTH IS A SPECIAL TREAT WITH TOM ECONOMOU, AND A VARIETY OF EXOTIC FRUIT. If you have ever had the pleasure of attending one of Tom's programs in the past, you will certainly want to attend this month's meeting. Tom Economou has made numerous trips into the American Tropics, conducting tours for our members. He brings to this program a fabulous amount of knowledge on exotic tropical fruits accentuated by a table full of fruit from trees in South Florida. In addition, we will have our usual tasting table and plant raffle. Please contribute.

FYI

by Al. Hendry

The cooperative extension service is a cooperative educational program sponsored by the Land Grant Universities in the U.S. All counties in Florida and most in the U.S. have an office. The service is sponsored by the U.S. Department of Agriculture, the University (In Florida, the University of Florida, Gainesville) and the county government. Programs available include Urban Horticulture (for home owners and apartment dwellers) and for farmers, there are dairy, beef, poultry, citrus, and vegetable programs. There are also 4H, food and nutrition, and home economics agents. The service will also identify plants, snakes, insects, and other "critters".

In Hillsborough county you may call or visit during county working hours, normally 9 to 5, to ask questions or pick up literature. Literature is also sent by mail. You may also send plant specimens by mail to have problems identified. Questions may be answered by trained volunteers, agents, or referred to the appropriate University office for an answer if information is not available locally. Telephone numbers for extension offices in our area are:

Hillsborough	(813) 744-5519
Manatee	(813) 722-4524
Pasco	(904) 521-4288
Pinellas	(813) 586-5477
Polk	(813) 533-0765

MAKING WINE

by Paul Zmoda & Associates

Paul opened his talk with a short history of wine making, indicating that the making of alcoholic beverages goes back maybe 10,000 years. It was a favorite way of preserving juice for future use and also provided for the use of the abundant wild grapes that were available. And in addition to grapes, many other fruit and juices were used to make wine. With the advent of the importation of tea into Europe, the drinking of wine was supplemented to some degree by the use of tea. The Colonists in the New Land, America, made apple and pear wine and ciders, but that began to taper off until after World War II when there was a great resurgence in winemaking in private homes.

The making of wine entails a mixture or sugar, water, organic acids and flavoring, undergoing a process called fermentation, the end result of which is a liquid containing ethanol alcohol. Ethanol alcohol is nontoxic in relatively small doses; other alcohols are definitely toxic.

While grape is the most commonly used fruit, wine may be made from most fruits, many vegetables, some roots, flowers, honey and even leaves. Anything with a high sugar or starch content is preferred. In addition to almost any fresh fruit you can name, including bananas and guavas, concentrated extracts are also available for those who don't have access to large quantities of fruit. Paul, as well as some of the other members, has tried these, and found they worked very well.

Commercial wines fall into three categories, white wine, red wine and Rose', or blush. Wines may also be charged with carbon dioxide gas to produce sparkling wines such as champagne and Cold Duck. These get their bubble effect from the carbon dioxide the same as soft drinks. Wines without carbon dioxide bubbles are called still wines. Wines are also referred to as dry wines and sweet wines. The difference indicates the amount of sugar. Dry wines are very low in sugar and the sweet wines, of course, are sweeter. The fermentation process can only produce alcohol to a certain percentage, depending upon the initial sugar content and the type of yeast used for fermentation. With these restrictions, wine alcohol content normally runs between 10 and 16 percent. In the must, which is the liquid at the start of the fermentation process, the amount of sugar determines whether the wine will be sweet or dry at the end of fermentation. Two things may stop the fermentation process; one is the lack of sugar for the yeast to feed on; the other is the death of the yeast due to the alcohol content. Different yeast can tolerate different levels of alcohol but all die when the alcohol reaches their level. If there is a deficit of sugar in the must, the fermentation will stop when the sugar is depleted but there will also be living yeast cells in the final product and the wine will be very dry. If sugar is added at this time, the fermentation process will start again because the yeast is still alive. Ideally, the proper amount of sugar should be provided to permit the fermentation to continue until the yeast is killed by the high alcohol content and only a very small amount of sugar is left if you want a dry wine, or more if you want a sweet wine.

In order to determine the proper amount of sugar, a hydrometer must be used to measure the sugar in the must at the start of the fermentation process. Some wines are meant to be drunk immediately after fermentation stops, and these wines are bottled and put on the market right away. However, all wines benefit from aging and quality seems to get better through the years. For winemaking, it is desirable to age your wine. So, for the best wines, put them aside in a cool dark place and let them age. If patience is not one of your better virtues, put some of the wine aside and drink the rest, and go on making new wine, rather than drinking up that which you have already made.

The major commercial wine producing countries are France, Spain, Italy, Germany,

England, United States, Australia and others. In addition, the United States government permits an individual to make up to 100 gallons of wine per year for his personal use. A married couple may make up to 200 gallons per year for their own use. The wine may not be sold but it may be given away or drunk by friends or in tasting parties.

Winemaking is fairly easy and one doesn't have to be concerned about the chemistry of winemaking in order to make good wine. It is only necessary to follow some simple steps religiously to produce very good wine. The one most important criteria is to keep all your equipment clean. Sterilize everything to prevent accumulation of vinegar spores and stray yeast cells which may be floating in the air. Sodium bisulfite or potassium metabi sulfite, called camden tablets, are excellent purifying agents and come in liquid, powder and tablet form. Dissolved in water, they form a solution which will kill spores and bacteria.

Brewers yeast may be used in winemaking but it has a couple of poor characteristics. One is that it dies at about 10% alcohol; the other is that it tends to suspend itself throughout the wine and is difficult to clear. The must, which is the raw material for making wine, is a mixture of fruit or vegetable juices, sugar and various chemical additives which help to produce better wine. During primary fermentation the must is normally kept in an open vessel with a loose lid or cloth cover to permit the escape of gases that are produced very rapidly during primary fermentation. Any kind of good polyethylene container such as a bucket or new garbage can, glass vessels, or porcelain make excellent containers for primary fermentation. It is not necessary but sometimes speeds up the process to make a starter solution of yeast cells for addition to the must, to initiate fermentation. In a jar, water, honey and the yeast cells may be added, along with a little ammonium phosphate, to give the yeast some nitrogen. In a couple days the yeast will have multiplied so there are millions of active yeast cells in the solution that are just waiting to get into that must and get a colony going. In addition to the sugar and nitrogen, the yeast cells require oxygen so it is necessary to stir the must actively a couple times a day to get air into the liquid. Or the yeast in powder form may be added directly to the must in lieu of making a starter solution, after the must has been purified and allowed to stand for approximately 24 hours. During the primary fermentation, the activity is rather violent and a tremendous amount of bubbles form. If there is not sufficient room, the foam will overflow the container and for this reason, it is wise to put the primary fermentation container in a pan of some kind unless it is much deeper than the level of the must. During the primary fermentation, most of the alcohol is produced and a certain amount of heat is given off by the exothermal reaction which occurs. A simplified formula may be written as such: Sugar + oxygen produces alcohol + CO_2 + heat. In a few days after the violent primary fermentation slows, the liquid may be poured into gallon wine bottles and fitted with fermentation locks which allow the CO_2 to escape through water but prevent unwanted things from entering. Eventually, the fermentation will completely stop; all bubbles will cease to come up and the solids will begin to settle out, spent dead yeast cells, food particles, pectin and other solid particles that will settle to the bottom, clearing the wine. At this point, it is time to rack off the clear liquid into a clean bottle where it may be firmly capped or corked and allowed to age.

At this point Arnold Stark demonstrated for us the first steps in producing wine. He indicated that he usually mashes up his fruit with a potato masher to extract the juice and puts the entire contents into the primary fermentation jar. Today he was demonstrating the making of banana wine and he indicated that the bananas are mashed and cooked in water for about 30 minutes and then strained to use the liquid instead of the entire fruit. He had already done this process and the liquid was in one of his jars. He used 4 pounds of bananas and strained the liquid through a colander. To this, he recommends adding about 3 pounds of sugar which will produce a sweet wine instead of a dry wine, and carry the fermentation

process to the maximum alcohol content. To this he added about a quart of water to bring the liquid content up to about a gallon. The must be cooled before the yeast is added. Next, he added a pectic enzyme which removes the haze caused by the pectin in the fruit juices. Then a teaspoon of nutrient which contains sodium phosphate, ammonium sulfate, magnesium, zinc, calcium, riboflavin, thiamine, etc., which provides all of the minor elements the yeast needs for good growth and multiplication. To this may be added a fruit acid such as citric acid, for fruit that is lacking in sufficient acid content. This can also be satisfied with a sliced up lemon or a couple of calamondins. Arnold also usually adds grape tannin to his must (tannin is found in the skins of grapes but not in a lot of other fruit) at the rate of 1/2 tsp. per gallon. Tannin adds a minute amount of bitterness, which tends to accentuate the flavor of the wine. However, it does tend to produce astringency and should not be added to wine must made from grapes and elderberries and such fruit that has a lot of tannin. Next Arnold adds a camden tablet. This sterilizes the must and kills all the wild yeast and other undesirable life forms. The only other thing to be added is the yeast, but for this we must wait about 24 hours to allow the sulfur dioxide to escape; otherwise the yeast would die. It should be noted that some people are allergic to sulfite and in the event that you are, you need to use some other method of sterilization.

Paul called on Diana Mills to demonstrate her method of making wine, which she learned in Canada. She had John pass around a sample of "the very worst sherry" that she has ever made. She said her best sherry gets drunk up before she can offer it to other people. Needless to say, the sherry was excellent and if this is her worst, I cannot wait to taste her best. She makes her sherry in a clean bucket. She uses her own recipe which she was kind enough to give to each member. (See recipe in this issue.) Crush one pound green grapes in bucket with a potato masher or something and chop the raisins a little jsut to break the skins and add 6 medium potatoes scrubbed very well and cut into pieces. To this add 2 quarts of boiling water and 4 pounds of dark brown sugar, cover with a plastic bag and allow to cool. When lukewarm, add the yeast, stir well and cover with a plastic bag and put in a dark place. Stir the must every day for 21 days, after which time it should be strained and poured into secondary fermenters with air locks. She also suggested that the mash of potatoes, grapes and raisins could be used for a second run by adding another 4 pounds of sugar and following the same procedure as before. She says this is so easy that anyone can do it. Diana also showed us how to make her banana wine and we've also included her recipe for that. The recipe is for 5 to 6 gallons but may be halved or quartered if you wish to make smaller quantities. And of course, she always recommends using a wine yeast in lieu of bakers yeast where available.

If your wine fails to clear naturally, there are clarifying agents that are available to use. One which you may find in wine books is egg white, but because of the possibility of salmonella, we probably can't recommend using egg whites for clearing. Use one of the commercial clarifying agents. Wine should be aged to reach its peak of quality, and the trick there, particularly if you do not have a lot of patience, is to make more than you can drink and put aside in a dark place that which you don't consume before you make more, and before you know it, you'll have some nice aged wine. The wine should be kept in a dark place and as cool as possible because the energy of light and heat will change the quality of the wine adversely.

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Season's Greetings
and Best Wishes for a Happy New Year

Raffle: December

Plant Name	Donor	Winner
Giant Shell Ginger	Stark	R. Grear
Spinach Tree	Charles Novak	Grady Tate
Spinach Tree (2)	Charles Novak	Anita Lareau
Spinach Tree	Charles Novak	G. Diaz
Spinach Tree	Charles Novak	Gene Wagenseller
Spinach Tree	Charles Novak	Nancy McCormack
Bag of Citrus	Charles Novak	Frances Wagenseller
Bananas	Sherry Baker	Bob Heath
Downy Myrtle	Heath	Sue Tate
Imbe	Heath	J. Bell
Pepper	Heath	Nancy McCormack
Guava	Heath	B. Spector
Guava	Heath	?
Rose Apple	Heath	G. Diaz
Sweet Lemon	Heath	G. Grear
Papaya	Heath	Sue Tate
Grumichama	Heath	Al Hendry
Fig	Heath	Sue Tate
Fig (2)	Heath	G. Diaz
Fig	Heath	?
Tree Basil	Heath	Sandi Schroff
Tree Basil	Heath	D. Grear
Passion Fruit	Heath	B. Spector
Passion Fruit	Heath	D. Grear
Orange Berry	Heath	Sue Tate
Black Sapote	Heath	Gene Wagenseller
Cherimoya	Burhenn	Roy Grear
Papaya	Burhenn	Sandi Schroff
Papaya	Burhenn	G. Diaz
Papaya (2)	Burhenn	?
Loquat	Burhenn	Sandi Schroff

Tasting Table: December

Lillian Stark: Harvest Loaf
Paul Zmoda: Cheese & Crackers
Al Roberts: Papaya Juice
Diana Mills: Banana Wine Punch
Joan Murrie: Toffee Bars
Charles Novak: Bananas & Passion Fruit
Janet Conard: Papaya Upside-down Cake
Bob Heath: Carambola Preserves
Sherry Baker: Bananas
Frances Wagenseller: Cookies
Frank Burhenn: Chocolate Spice Cake
Pat Jean: Gingerbread Cookies
Sandi Schroff: Chocolate Chip Cookies
Nancy McCormack: Xmas Cup Cakes

New Members

Roy & Darlene Grear 35927 Chancey Road Zephyrhills, FL 33541 (813)948-1883, 780-6564

What's Happening: Dec-Jan 1994

by Paul Zmoda

Don't forget the vegetable garden just because it's cold outside. You should continue to plant cool weather crops such as peas, cabbage, lettuce, argula, broccoli, turnips, radishes, spinach, carrots, etc. Many *Brassicas* may be grown where there is little available sunlight. A good example are the mustards which will grow well on the north side of a building. Always mulch your vegetables to conserve moisture and feed the soil. Keep raking fallen leaves and use as mulch or to make a compost pile.

Monitor the weather forecasts to stay a step ahead of cold fronts. Have your greenhouses at the ready, lots of cardboard boxes and blankets available, and the sprinklers on alert in case we are threatened with subfreezing temperatures. Out club member, Walter Vines, described a good method for protecting small shrubs from freezes: encircle the plant with a cage of chickenwire which should be taller than the tree itself. Next, fill the cage with dry fallen leaves up to the top. Then cover all with a plastic bag, or wrap, down to the ground.

The tropical apricot (*Doyvalis* spp.) is flowering now and forming many tiny fruits. These are parthenocarpic fruits, which means that they form without pollination, just like some persimmons and bananas This also means that they have no seeds. The doyvalis ripens to a velvety, orange-brown fruit full of flavor and juice. This medium to large shrub may flower on only a few branches out of many during the year.

The yellow grenadilla or passionfruit (*Passiflora edulis flavicarpa*) is dropping its heavy load of billardball-like fruit. They are shiny and yellow, reaching peak quality as they ripen to just a slight wrinkle on their skin. The flavor is unique and pleasant. You can make a good breakfast drink from the juice (as good as or better than O.J.). Try marinating chicken or pork in passionfruit juice with ginger or garlic before grilling. The juice may be frozen for later use.

Now through late February is the preferred time to plant or move tour dormant fruiting trees. Apples, pears, peaches, persimmons, plums, grapes, and nut trees will survive the transition best at this time of year.

Various specimens of *Garcinia* spp. are doing well despite our cooling snaps. The mangosteen seedlings so far don't seem to mind 40-60°F temperatures overnight. Previous experiences with cacao and coffee weren't as fortunate.

Coming Events:

- March 5&6 — Pasco County Chasco Festival
- April 30 — The USF Botanical Gardens Spring Plant Sale
- May 12-27 — Tom Economou will be leading a botanical trip to Holland, Germany, France, and England (Chelsea Flower Show). Details available at the January meeting or call (407) 499-9888.
- October 15 & 16 — Our Big **Annual Sale** (Put it on your calendar NOW!)

Recipes of the month

by Diana Mills

Sherry in the Kitchen

SUPER-EASY, this made in 21 days libation meets professional standards if you can leave it alone for a year. But who does?

1 pound raisins
1 pound sweet green grapes
8 pints boiling water
6 medium potatoes, unpeeled but washed
4 pounds dark brown sugar
1 ounce yeast

Sterilize your equipment with sodium bisulphite. Crush grapes in a ordinary bucket, or if lazy throw in blender with some of the water. Add sugar, raisins, and potatoes, pour boiling water over them. Let cool. Cover with a plastic bag whilst cooling. When luke-warm, start yeast. After 10 minutes, add yeast to bucket.

Stir every day for 21 days. Be sure to replace the plastic cover each time you stir. Strain and pour into a secondary fermentor with air lock. After 3 weeks, bottle. I have saved the mash of potatoes, grapes and raisins, added more sugar and yeast, and run off a second batch later. You can even go one step further and put the raisins into "Tipsy Cake". Delicious for this time of year.

Banana Wine

30 really ripe bananas
2 sliced lemons, including peel
2 ounces yeast nutrient
1 teaspoon grape tannin
1 package yeast
juice of 5 oranges
15 pounds sugar
2 teaspoons acid blend
5-6 gallons water

Slice peeled bananas into 1-3 gallons of water. Add orange juice and lemons, bring to a boil and simmer for 30 minutes. Strain into the primary fermentor (for example, a sterilized plastic garbage container). Add the remaining ingredients except the yeast, and the remaining water. Sir well and when cool, add yeast. Cover with plastic top or bag and tie down securely. Ferment until the specific gravity is down to 1.30. Siphon into a carboy or gallon bottles with fermentation air locks. Rack in 2-3 weeks. It should go down to 0.990 specific gravity. Let settle until clear and then bottle. Timing depends on weather conditions, heat in house, availability of wine maker, and unknown gift of Bacchus.

* * *

NEW LAWNMOWER SHED

On December 4 four club members met at the clubhouse to enclose the lawnmower shed to protect the lawnmower from the elements and from theft. The 12 ft. x 12 ft. covered area which fronts on our concrete out-building, hardly presented an adequate enclosure for our lawnmower, so the club purchased pressure treated 1/2" plywood, 4 x 4 posts, hinges and hasps to enclose the building. Bob Baker, Frank Burhenn, Bob Heath and George Riegler volunteered their time and expertise to do the job. It took about 5 hours to set the posts, install the plywood and make the 7' door which provides the width to allow the lawnmower to easily enter and exit the shed. The results seem to be acceptable for the purpose. The only thing that remains now is a good coat of paint. Painting volunteers will be gladly accepted!

Thank You Thank You Thank You

Bob Baker, Frank Burhenn, Bob Heath, George Riegler for building the structure to hold our lawn mower.

* * *

WINTER PROTECTION

It's beginning to feel a lot like winter,
Frost is on the ground.
So your editor's propose
Wrap your trees in winter clothes.
Here are some other ways to keep your fruit trees safe and sound:

1) Large cardboard boxes over plants.
2) Blankets, sheets, tablecloths, burlap sacks.
3) Build a wooden frame and cover with plastic - plastic should not touch plants.
4) A light bulb under any of the above (preferably with electrical hook-up and turned on).
5) Reese protectors.
6) Gallon jugs or buckets of water at base of tree or hung among branches.
7) A lot of prayers.
8) Make a list of plants to replace at the next sale.

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FIRST CLASS MAIL

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