The Leaflett

California Rare Fruit Growers - Central Coast Chapter Newsletter
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2007 – The Year of the Mango

Mangifera indica

Anacardiaceae

Mango Experiences!

Several of our chapter members are real mango "experts" and have agreed to share their growing tips with you. The first article is by Barbara Mathews, who, along with her husband, Lloyd, raise mangoes in their backyard in San Luis Obispo. The next article is by our favorite grower to the south, Norman Beard.

Barbara Mathews says: "We think Mangos are the finest of fruits. At Costco we buy a box of 8 every week and they are delicious and healthful, too. We were so pleased to be able to successfully grow Mangos in our SLO backyard. The trees are prolific bloomers, like avocados, but you are lucky to get three or four for your crop. Last year was our first picking on our 5-year-old trees. The meat was a bright

orange and the taste sweet and wonderful. We had four mangos from the same tree this year. Another mango tree has different shaped fruit and we are about to cut our first one—and eat it as soon as it ripens in the house.

One of our sons prepared a dinner this past week with Alaskan wild salmon topped with mango and avocado with an

orange sauce that was so delicious. (Recipe for the salsa is given at the end of this article.) Also for Christmas dinner we prepared cranberry sauce with mango pieces cut up in it for a nice texture and taste. Mango fruit is tops on our list and fun to cut up in different ways and enjoy!

Fresh Mango Hot Salsa

Two Blood Oranges juiced (for color)
1/4 cup favorite oil
3 cloves garlic
1 jalapeno pepper
1 small onion chopped fine
1/4 bunch Cilantro
salt to taste
Mix and top with 1 diced mango and 1 diced avocado."

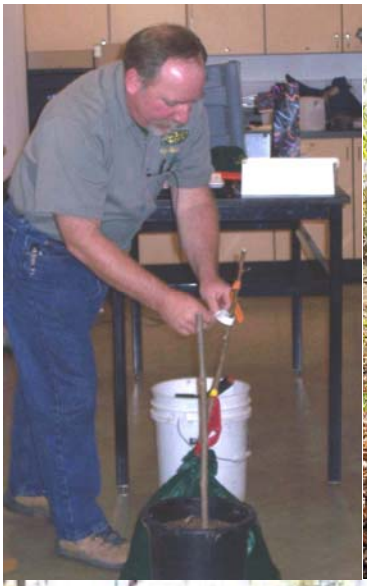
According to Norman Beard: "Mango trees will grow very good a long the Southern California Coast. Here in Goleta, I have several Mango trees growing, such as: Five Manila Mangos, one Bombay, three Nam Doc Mai, One Glenn (Indonesia), one Keitt, and two Tommy Atkins. All trees have been grafted, with the exception of the Manila mangos, which are seedlings. However, they produce lots of yellow fruit in large clusters. The set so much fruit, that the fruit has to be thinned out. Since it is a seedling, it takes approximately four years before you will get decent fruit, up to six inches long.

The Keitt is one of my favorite fruits, as they will weigh in at three to five pounds each. I have included a picture of the fruit from a tree I planted in the fall of 2005. It is presently in bloom again. The blossom set is so heavy on all mango trees that it has to be thinned out.

The Tommy Atkins mango produces approximately 12 fruit per year, has a tendency to grow out rather than grow tall (3 1/2'). I could correct that by taking all the fruit off each year, but I like to see the tree fruiting.

The best way to get your mango trees to bloom, is deep watering with an overhead water sprinkler system (starting in December), water every other week. If your tree doesn't bloom, continue to water heavily. Your planted mango tree should have its upper root system lightly brushed, removing the dirt off of the root system, exposing approximately 1/4 inch of the roots, this causes the tree to bloom. Mulching around your trees with pine shavings or needles helps hold in the moisture. The mango likes lots of water, but doesn't like wet feet. Soil should have good drainage. Sometimes you will notice powdery mildew on the bloom of a mango tree--then you'll need to use a copper spray that can be bought at the local nursery or hardware store called Kop-R."

January Meeting



Over 100 people of **all ages** showed up for the January meeting to learn about pruning from expert pruner and plant man, Tom Spellman of Dave Wilson Nursery. A brief business meeting was held where new officers and board members were voted for and installed.

New Chapter Officers are: Co-chairs, Bob Tullock and Larry Hollis; Secretary, Helen Whigham; Treasurer, Dick Pottratz. Board Committee Members are: Program Committee, Art DeKleine, Carol and Robert Scott, Lauren Garner; Program Advisor, Joe Sabol; CRFG State Board Member, Joe Sabol; Raffle Directors, Morris Tracy and Marvin Daniels; Newsletter Editor, Lennette Horton; Newsletter Mailing, Art and Doris Henzgen, Linda Hauss; Publicity, Joe Sabol; Apple Grafting Coordinator, Joe Sabol; Apple Grafting Assistants, Marvin Daniels and Patti Schober; Community Orchard Coordinator, Philip Yoshida, Kristin Poochigian, and Joe Sabol; Historian/Archivist, Mary Giambalvo; Librarian, Marie Moyer; Photographer, Paul Moyer; Assistant Photographers, Ronald Blakey and Joe Sabol; Hospitality & Refreshments, Art DeKleine, George and Jane Roach, and Volunteers; Coffee Assistant, Evelyn Ruehr; Greeters, Susie Allen and Choung Crowe; Web Masters, John and Choung Crowe; Web Assistant, Art DeKleine; Scholarship Program, Lark Carter, Carol Scott, Barbara Mathews, and Sandy Ahearn; Board Committee Members; Bob Tullock, Larry Hollis, Helen Whigham, Dick Pottratz, Chuck and Susan Atlee, Owen Baynham, Ron Blakey, Lark Carter, Marvin and Pet Daniels, Art and Doris Henzgen, Nancy Lehman, Barbara and Lloyd Mathews, John and Sandra Pirghaibi, Jim Ritterbush, Patti Schober, Robert and Carol Scott, Rhonda Underwood, Jenny Weaver, and Mark Woelfle.

Joe Sabol was called forward to give an over-view of the "Olive Tree Project" (covered in the last issue) and got surprised with his own award for his hard work and dedication to making the "Olive Tree Project" such a success—he got an olive branch laurel! (Photo of Joe was taken by Paul Moyer.) Joe suggested that we pay for MSG Patricia Marsano, who originally had requested help in finding olive trees to plant in Iraq, to be an official CRFG member. Joe wrote to Patricia later: *"This afternoon, at the monthly meeting of the Central Coast Chapter of the California Rare Fruit Growers, you were selected to be an honorary member of the CRFG. There is no such thing but we did it anyway. Our chapter treasurer will pay your annual dues to our "parent organization" for the coming year and you should soon start to receive our magazine at you home address in Ohio."*

Patricia was thrilled by the honor and plans to visit the Central Coast when she returns from her tour of duty.

Once the business meeting was over, Tom Spellman gave us a quick in-door lesson in pruning (causing many a gasp as he lopped off his bare-root specimen basically at his knee). Tom reiterated that he is not pruning for commercial production but for ease in reaching fruit in the home garden with out resorting to a ladder.

We then headed out to the community orchard where, after giving a few more pointers and demonstration cuts, Tom turned us loose on the trees. Everyone had a job to do and a great time doing it! What a wonderful feeling of camaraderie as we worked together to make our orchard a place of beauty and future production! (Photos at the beginning of this article were taken by Paul Moyer, Ron Blakey, and Joe Sabol.)

February Meeting

Wow! Can you believe the Crops Science Classroom was this full for our annual scion exchange meeting? Paul Moyer's great photo pan only shows the 158 plus people that made it inside for the brief business meeting—there were many more outside waiting to purchase rootstock, grafting supplies, or to get their hands on some premium scions. All this enthusiasm was accompanied by 82 degree weather!

Thanks to everyone who made this such a wildly successful event, but especially to: Bill Spencer and Windrose Farms for donating more than a dozen apple varieties to the scion exchange for the 7th year in a row; to Janet and Michael Pesenti for donating more than a dozen different fruit tree scions for the 7th year in a row; to Chuck Atlee, Art Henzgen, Art DeKleine, Larry Hollis, and Robert Scott for collecting scion wood in the rain; to Dave Christie, Dick Pottratz, Gene Santos, Craig Righetti, Marv Daniels, and Art DeKleine for being "gifted grafters" and demonstrating their grafting techniques; to Bill and Ruth Mounts and Carmela Vignocci for managing the "store" to sell grafting knives, Buddy Tape, and grafting kits; to Larry Hollis, Roger Eberhardt, Lark Carter and Pet Daniels for managing the rootstock sales; to the scion exchange committee of Carol and Robert Scott, David Gurney, Paul and Marie Moyer, Jenny Weaver, Lloyd and Barbara Mathews, John and Choung Crowe, Bob Tullock, Patti Schober, Joan Tomooka, Art and Doris Henzgen, Carmela Vignocci, Joe Sabol, Larry Hollis, and Art DeKleine; to the clean-up crew who stayed behind which included, Art and Doris Henzgen, Lyle Overley, Carol and Robert Scott, Art DeKleine, Bob Tullock, Joe Sabol, and many volunteers; and last, but certainly not least, to all those who brought refreshments (the H-R Group)! Oh, yes, thanks to ALL the scion donors, too!

In photo on the right, Craig Righetti demonstrates a "first" for our scion exchange day—avocado tree budding. Perhaps it was pre-destined that this demonstration would be given since "The Big Freeze" damaged so many avocado trees in our area. In any case, it was a popular grafting site.

Dormant Fruit Tree Fertilization

By Tom Ruehr

At the January meeting of the California Rare Fruit Growers on the Cal Poly campus, I applied several fertilizers and soil amendments to the orchard. The following fertilizers can be applied as a dormant fertilization. (Photo of Tom was taken by Joe Sabol.)

The Cal Poly orchard is derived from the surrounding mountains including serpentine beside a small river immediately to the east in the trees. Serpentine rocks are bluish or bluish green. Serpentine rocks have a very high content of magnesium (Mg2+) ions. The problem is these serpentine derived soils have a very low level of calcium (Ca2+) ions. The result is crops growing on these soils have a need for additional calcium. Apples often exhibit signs of bitter pit due to the lack of calcium.

Calcium is needed in approximately 1 to 2 tons of calcium per acre. I applied gypsum (calcium sulfate dihydrate or CaSO4A2H2O) where the dot means the 2 water (H2O) molecules are part of the gypsum crystals. Gypsum contains only 23 % calcium. I applied a 50 pound bag of gypsum to the orchard. This was the first very powdery substance spread evenly below the trees. Gypsum will need to be applied repeatedly for several years to overcome the problems existing on this campus site. (Caution, unless you know you have a serpentine problem, do not apply gypsum! Gypsum has a low solubility and will not burn the trees.)

A 50 pound bag of potassium sulfate (0-0-50) fertilizer was spread onto the soil below the drip line (canopy edge) of each tree. This corresponds to about 400 pounds of potassium sulfate per acre. Potassium is the single most important plant nutrient for improving the overall quality of fruit by enhancing the tanginess. Potassium sulfate obtained from the Great Salt Lake is certified as organically approved.

A major problem occurs with both calcium (Ca2+) and potassium (K+) applied to the soil surface. The soil clay minerals and humus (organic matter particles) have a negative electrical charge holding these cation (+ charged) nutrients. This means the added calcium and potassium will remain near the soil surface and will not move very deeply into the root system. The calcium (Ca2+) ions from the gypsum bind more strongly to the clay and humus particles helping to push the potassium (K+) ions (held only weakly to the clay and humus) deeper into the root zone. Calcium and potassium movement will be less than 3 inches downward.

A 50 pound bag of monoammonium phosphate (11-52-0) fertilizer was applied under the drip line. The ammonium (NH_4^+) form of nitrogen represents 11 % total nitrogen in this fertilizer. Normally, nitrogen is not used during the dormant season. Nitrogen is used once the full green foliage develops.

The phosphate ($H_2PO_4^-$) is an anion (negative electrical charge) with 52 % P_2O_5 (phosphoric acid) equivalent. The problem is phosphate will not usually move more than about one inch downward into the soil. These fertilizers were applied on the soil surface. If you only have a few trees to fertilize, I recommend you first walk around under the tree and outline on the soil the drip line or outer edge of the tree canopy. Moisten this zone or perform this fertilization after good soaking rains. Obtain a metal rod of 3 to 4 feet in length and a good quality hammer. Be careful with the hammer! Consider the trunk of the tree as the hub of a wheel and the drip line is the wheel rim. Locate the approximate north, east, south and west portions of this imaginary wheel. Move about 6 to 9 inches inside this drip zone. Pound the rod carefully down to about 2 feet in depth at each of these compass directions. Place about a tablespoonful of monoammonium phosphate and a teaspoonful of potassium sulfate into each hole. Ideally, it would be good to fill the hole with compost if you have this available. This provides 4 holes about 2 feet deep around the edge of each tree.

Next, repeat this process between the 4 previous holes at locations between these holes (corresponding to northeast, southeast, southwest, and northwest). Make these holes only about 12 inches deep. Use the same amount of fertilizer as were used in these other holes. This is called the perforation method of fertilization and is very time consuming. It does provide fertilizer nutrients directly into the plant root zone and overcomes the problem of limited movement of the calcium, potassium and phosphate.

When you purchase fertilizer from the local farm supply or other dealer, tell them you are fertilizing your orchard and garden.

Nitrogen fertilizer should be applied in the spring when the leaves about half developed. It is important to avoid over application of nitrogen because it will produce an excess of leaf tissue and rob sugar from the fruit development. The nitrogen is needed for leaf tissue protein and trunk and twig growth. I will explain about nitrogen nutrition in a future article.

If you have questions, please contact me at truehr@calpoly.edu. I hope this produces sweet and tasty fruit from your trees.

Apple Grafting Classes a Huge Success—Again!

Once they were called “high school” apple grafting classes, but the program that began that way back in 1998 with three high schools has expanded to 20 different venues and includes not only traditional high schools, but Achievement House, the Master Gardener Program, Grizzly Academy, and even a junior high school or two. The only requirement for a class is that the venue agrees to buy a minimum of 100 rootstocks at our cost, which is $1.10 per tree. (This year, 3300 rootstocks were purchased at Lawyer’s Nursery in Montana for this purpose.) Our volunteer grafters travel all the way to Gonzales in the north and Santa Inez and Lompoc to the south. Some drive themselves; others travel in a seven-passenger van

loaned to the program by Cal Poly. Joe Sabol, apple grafting chairman, keeps all the volunteers on their toes and well supplied with information on how and where to help.

Volunteers don't need to know anything about grafting—they just need a steady hand and a watchful eye. After all, these students are being turned loose with very sharp knives! (No serious cuts have ever been sustained, though. Dr. Sabol's years of instruction at Cal Poly pay off over and over again as he trains students on, not only how to graft, but how to hold a grafting knife safely!)

Most volunteers are repeats, too, because it is so rewarding to see the happy smile of a student who has successfully "built" his or her own tree! (Happy smiles above are at Bradley Middle School where even pouring rain didn't daunt the enthusiasm of either students or volunteers! Photo was taken by Joe Sabol.)

Chapter Member Celebrates 50 Years of American Life

On February 27, as the grafting team finished up their work in King City, Henry Mulder asked them if they'd like to stop at the coffee shop so he could by them a cup of coffee. They were happy to do so, but it wasn't until they were seated in the restaurant that he told them his real reason for celebrating: it was his 50th year anniversary of arriving in the United States from Holland.

Before long, the coffee shop owners had joined the group (even contributing bagels to the cause) as everyone listened, fascinated, to Henry's tale of arriving in America as a 19-year-old and just two years later starting his own business—a wholesale cut-flower nursery. Now retired, Henry maintains a home orchard and is actively involved with the CRFG. Henry is proud

to be an American and is certainly a wonderful example of how through hard work and determination, one's dreams can come true! Congratulations, Henry!

The Big Freeze

Nearly everyone has a story to tell about their losses during the unusually cold snap we had in January. (See Joe Sabol's sad face as he says good-bye to this year's citrus crop in his home garden in SLO. A picture paints a thousand words!) Many farmers, especially those growing avocados and citrus, will be feeling that "bite" for years to come. While much has been written about what the home rare fruit grower can do to take care of frost damage, the advice given by Tom Del Hotal, a CRFG member in San Diego County, is great because it is short and sweet. Tom says:

1. Do not cut back damaged plants yet! If freezing temperatures occur after you have cut your plants back, further damage can occur and cause additional injury or plant death. Although the damaged foliage may look ugly, it can actually protect your plant. A second reason not to cut back your plant is that there is stored food in the branches of your plant. As a plant attempts to recover from frost damage and grow new leaves, food stored in the branches aid in the plants ability to re-grow new leaves. The branch will die back as the stored food is withdrawn and as new growth develops. Waiting until new leaves and shoots have grown before you cut off the damage on your plant helps your plant to recover and prevents you from removing parts of your plant that may grow back.

2. Whitewash the bark of the trunk and the branches of subtropical fruit trees if leaves have been lost or if the bark is exposed to full direct sun. This is especially important in the hotter, inland areas of San Diego. The bark of many normally evergreen, subtropical fruit trees is very sensitive to sunburn.

Announcements

Welcome New Members: Dorothy and John Warnock, MSG Patricia Marsano, Michael Ferreri, Richard (Al) Terry, Jutta Thoerner, Brent LaMon, Sharon Kuhlenschmidt, Tom & Debby Mix, Randy Fallgatter, Reo Cordes, Don Weeks, Harry Toy, Juan Oliverria, and Don Funk.

Join the Parent Organization: Many of our chapter members are also members of the Parent association and, for those of you who aren't, perhaps you **should** consider joining. With parent organization membership you receive a wonderful color magazine, ***The Fruit Gardener*****,** filled with great articles on fruit growing, news, many chapter activities and contacts. Dues are **$30 annually** or **3 years for $87**. Membership applications are available from **Joe Sabol**. Call him at **544-1056** if you can't find him at a meeting.

Calendar of Meetings – 2007

Meetings are held the **second Saturday** of the month and begin at **1:30 PM** unless otherwise indicated. Bring a friend, car pool, and, for most meetings, **bring a chair** for all in your party. Pet Daniels suggests we bring our own bottled water to drink, too. What fun it is to be a member of CRFG!

March 10—San Luis Obispo County Botanical Garden: Liz Scott-Graham will give a tour of the new energy efficient straw-bale-insulated education center at the Botanical Garden. She will also give a short presentation on the big vision for the Garden. At 3:00 PM, the Garden will have trained docents to lead us on a general tour of the Garden. **HOWEVER**, it is necessary to make reservations for the tour so there will be enough docents on hand to lead a tour group of no more than 10 people each. If you will be joining us for this marvelous experience, please contact Joe Sabol (**544-1056**) or Art DeKleine (**543-9455**). Chairs are provided for this event. Refreshments will be provided by the **S-Z** team, please.

Directions to Botanical Garden: Take Hwy. 1 toward Morro Bay. Across from Cuesta College is the entrance to the Dairy Creek Golf Course. Take that entrance but continue on towards the park and Botanical Center.

April 14—Bob Asbell's Orchids—Arroyo Grande: This is a tour you won't want to miss! See Bob's collection of beautiful "rare fruits" for the soul! Refreshments will be provided by the **A-J** team, please. Parking is limited, so this would be a great day to carpool.

Directions to Asbell's Orchids: Unavailable at Press Time! Information will be handed out at the March meeting.

Central Coast Chapter CRFG Contact Information**: Bob Tullock**, co-chair, tullock@tcsn.net or **238-2868; Larry Hollis**, co-chair, l_Hollis@hotmail.com; **Art DeKleine**, program chair, adeklein@calpoly.edu or **543-9455**; **Joe Sabol**, publicity, jsabol@calpoly.edu or **544-1056**; **Dick Pottratz**, treasurer, pottratz@sbcglobal.net; or **Lennette Horton**, newsletter editor, handynana@gmail.com or **474-6501**.