

The Leaflett

California Rare Fruit Growers - Central Coast Chapter

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2004 - The Year of the Berry

Mulberry

Family: Moraceae

Genus: *Morus* (MOR-russ)

The white mulberry tree (*Morus alba*) was originally imported to America; not for its edible fruits, but for its leaves, which are the staple food of silkworms. In the 1200's, Britain began its own silk industry, not wanting to rely on Chinese silk, but the production there was always rather sporadic because of the cool, damp climate. King James I (of Bible fame), sent white mulberry seeds to Virginia in 1605 and later sent silkworm eggs, hoping to get an industry going there. The climate was fine, but shipping the cocoons back to Britain to be spun into thread wasn't practical. Since there was no infrastructure for textile mills that could handle spinning the cocoons into thread, it remained a cottage industry, the quality varied greatly, and buyers were hesitant to purchase the homespun thread.



By the 1800's, silk production in America lingered in only a few towns. Then, in the 1830s, an entrepreneur, William Prince, imported a "new" mulberry from China, *Morus multicaulis*, and began propagating it. He convinced an Englishman to bring in one million silkworm eggs which they would sell for 25 cents per thousand. Their ad campaign started: "If ye aspire to wealth and ease, Stock well your farm with mulberry trees; The silk-worm will their worth unfold, And coin their foliage into gold."

Investors lined up to purchase the young trees and a few silkworm eggs. Then, in the devastatingly cold winter of 1835-36, all the trees died. "So sorry, the trees were not planted correctly, and, by the way, you planted the wrong mulberry. We do have a better mulberry; of course, it costs a little more..." This time the "genuine" *Morus multicaulis* started out at five dollars per one hundred trees. "Speak up quick or you'll miss them" was such a successful ad campaign that the cost soon escalated to five dollars per tree. Some people even paid 100 dollars per tree! The trees cost more than the silk could ever return. Inevitably, many "silk farmers" lost their "farms" and had no choice but to go where they could obtain free land. They packed up their families and headed out to settle in the American West. They took mulberry trees with them, too, but this time, not as a source of income, but as a source of food for themselves!

There are many types of mulberry trees with fruit colors of white, red, and black (very dark purple). The fruit of the white mulberry (*Morus alba*) is mild and sweet, with a faint watermelon taste. It is popular because the tree grows fast and the fruit is non-staining. The red mulberry (*Morus rubra*) and the black mulberry (*Morus nigra*) both have more intense flavor, but the fruit will also stain just about

anything it touches! Everyone who grows this hardy tree for the fruit warns that dark-fruited kinds should be planted well away from areas that could be damaged by the stain.

On the front cover of the January/February issue of the *Fruit Gardener* magazine, in the center of the beautiful photo of berries, are several varieties of mulberries. I contacted Edgar Valdivia, the photographer, and learned that he grew the mulberries in the picture. He said, "So glad you liked the photo that appeared on this issue of *Fruit Gardener* magazine. The mulberries that you refer to in the center of the picture are Pakistani mulberries. Yes, I grew them myself and have quite a few trees. As you can see from the picture, the fruit is a good size--almost 3 inches long. It is very tasty and a heavy producer. We will be having a speaker at this year's Festival of Fruit, who will be speaking about the mulberries. His name is Dan Bayer and he is quite an expert on this topic. As for myself, I live in Simi Valley and can tell you that this fruit will tolerate cold. So, I'm sure will grow very good in your area. They can be grown very easily from cuttings; or can be grafted on to a non-fruiting mulberry tree. I had one non-fruiting mulberry tree, and have grafted 4 different varieties of mulberries on to that tree. So, it is now producing the 4 different types of mulberries. There is a brand new variety that comes from India. It is the same size as the Pakistani and a good flavor. But the color is white. Many people prefer the white, because it does not stain. This new variety is called Hunza. I believe you can find it in some nurseries. The other fruits that are on this cover include strawberries, blackberries, blueberries, gooseberries, and another variety of mulberry, Shangri-la. It is a white mulberry."

Mulberry trees are generally easy to grow from seeds, cuttings, layering, or rootstock. The plants are self-fertile and the fruit ripens, depending on the cultivar, from late May through July, with the black mulberry being the last to ripen. They are tolerant of low temperatures and, once established, will take some drought. The leaves are deciduous. They prefer a sunny location and make excellent shade trees, growing about a foot a year to 30-40' high, or taller--up to 75 feet high! Usually long-lived, the mulberry may produce fruit from 25 to 100 years or more! They are mostly pest-free, too! As a matter of fact, the mulberry tree is just about perfect as long as you don't grow it too close to your house, driveway, or patio! The CRFG website has detailed information on the species and their propagation, so visit the mulberry information page at <http://www.crfq.org/pubs/ff/mulberry.html> if this article has piqued your interest in growing this wonderful fruit.

The white fruits have no tartness which makes them taste rather bland. Adding lemon juice to some recipes can bring out the flavor. The making of mulberry wines and mulberry jams are two very popular ways to prepare the berries. Since the berries are highly perishable, there is no real commercial production for them, but they are ideal for the backyard gardener who wants to grow something both tasty and unusual!

Following is a recipe based on the pies we used to eat at family reunions at my great-uncle, Will Frame's, house near Selma, California, where we sat at long tables under the shade of the very trees that were providing the fruit for dessert! The pies, still warm from the oven, were served with home-made vanilla ice cream churned from fresh cream brought by Cousin Leonard Frame from his dairy! Those are memories to cherish!

Aunt Fay's Mulberry Pie

3 cups mulberries
 1 ¼ cups sugar
 2 tsp. lemon juice
 ¼ cup flour
 2 tbs. butter
 Pastry for 2-crust 9" pie

In a large bowl, mix berries with lemon juice, sugar and flour. Place mixture into 9" pie pan lined with crust. Dot berry mixture with butter and then cover with top pie crust. Crimp edges, cut slits in upper

crust, and then let pie rest in refrigerator for 30 minutes. Preheat oven to 400°F. Bake pie in preheated oven for 15 minutes. Lower the temperature to 350°F and bake for an additional 30 minutes. Remove pie from oven and let sit on wire rack until cool.

April Meeting

Since I wasn't able to attend, the following information on the April Meeting at **Trees of Antiquity** in Paso Robles is courtesy of Art DeKleine and Lach MacDonald. Thanks, guys!

From Art DeKleine: "What a great meeting we had today! Neil Collins and Tom Linden were gracious and enthusiastic hosts. They are growing apples, and more apples (130+ varieties), cherries, peaches, apricots, nectarines, pears, figs, and nuts. They are trying to sell 10 to 15,000 trees per year. The trees are grown on 1.5 acre plots, in five year rotations. They talk about the apples as if each variety was a long-time cherished friend. They took us on a walk of the graftings. They graft in the fall, after the wood has hardened, and wait for spring to see if the bud will push. They have a 98% success rate.

Tom would like to know how to become more acquainted with the Cal Poly trees. He is a Poly graduate (I think).

We had about 45 people at the meeting. For an Easter weekend, with many events this weekend, and a long travel, I thought we did very well! A little warm, but people seemed to enjoy the afternoon. We had two people join the organization...

I took 30 Murray Smith tomatoes from Howard Brown, but only sold 13. I gave Neil and Tom two each. I may try to give 13 back to Howard if I can't get rid of them." (Photo by Paul Moyer)

From Lach MacDonald: "Joe Sabol promised a beautiful day in Paso Robles for CRFG, April 10 and he delivered, though he was in Italy when we gathered at Trees of Antiquity, Inc. at 20 Wellsona Road. Our chairs and refreshment table (thanks A-H!) were shaded by a large oak on the farm road adjoining the mother trees and leading to the growing grounds production area. Tom Linden and Neil Collins are two young men originally from Southern California who chose this area when they acquired Sonoma Antique Apple Nursery from Terry and Carolyn Harrison and moved operations to the Central Coast.



Tom explained that the chill hours, the soil ("the body that contains the heart of the trees") and their dedication to growing certified organic fruit trees were key factors in their venture. The Harrisons guided Tom and Neil and continue a supportive relationship, while their example of dedication is immediately evident in the enthusiasm the two partners demonstrate for their work.

The focus of the operation is on producing root stock from their own mother trees and grafting a wide variety of heirloom apples, but their selection of plants includes grapes, pears, peaches, plums and figs, assorted berries and less common fruits. Their 58-page catalog reflects this variety and is an education in itself. Perhaps that's why all available copies were snapped up at the meeting. Check their website to be on the list for the next edition of the catalog; when has a nursery catalog been graced with a poem by Pablo Neruda? ["I love all things, not because they are passionate or sweet smelling...."]

The decision to be a Certified Organic Nursery not only involves the propagation of the root stock from mother trees, but grafting, soil preparation, irrigation and pest control. How many CRFG members can resist desperately resorting to toxics they once swore to avoid? Tom and Neil have limited choices, with all the usual competitors such as ground squirrels, gophers, moths, diseases and insect vectors.

Some CRFG members had visited South SLO County nurseries earlier in the day and still traveled over the grade for the meeting—including some members from Santa Maria. They were rewarded by Tom's frequent mention of varieties suitable for the climate and lower chill hours experienced south of Cuesta Grade. Mentioned were Adelanta, Anna, Golden Russet, Newtown Pippin, Pettingill and the popular Spitzenburg.

The Q and A session ranged widely and included technicalities our informed retired professors often ask. CRFG is a great learning experience! We moved to the growing ground, featuring row upon row of grafted root stock. Imagine the two young men planting at night, a row of 300 grafts, one foot apart. Imagine keeping track of a bewildering variety of cuttings without getting the varieties mixed up. At home we have half a dozen apple trees and some are already unidentified! (Tom and Neil are shown in the center of photo. Thanks to Bob Tulloch for this picture and for putting up the balloons to guide members to the meeting site.)

There's more to report, but only space left to thank Tom and Neil. I hope they will wear their CRFG hats, and I urge you readers to check out their website at www.treesofantiquity.com Tom and Neil will be pleased to help you select an heirloom or two for your growing area."

The Worthless Worms in Silken Cocoons!

The Redhumped caterpillar, *Schizura concinna*, is found throughout much of California. Though the climate here on the Coast usually does not favor development of large populations, the worm can be a serious problem in the warm Central Valley. The trees most commonly attacked by these caterpillars are liquidambar (sweet gum), walnut, and plum, but they'll also eat the leaves of almond, apple, apricot, birch, cottonwood, cherry, pear, prune, redbud, willow, and other ornamental plants. They spend part of their life-cycle in silk wrapped cocoons, but their silk is worthless in any market!



Moths lay pearly white eggs in clumps of 25 to 100 on the undersides of young leaves. The eggs hatch into yellow caterpillars that are 1 to 1 1/2 inches long when fully grown; the body is marked with white, reddish brown or sometimes black stripes. The head is usually orange or brick red, as is the fourth body segment, which is distinctly humped and has two prominent black spines. The pupa is reddish brown, a little over half an inch long, and is enclosed in a silken cocoon in the soil or in a layer of organic debris. Adult moths have a wing span of 1 to 1 1/2 inches. The forewings are red to gray-brown and the hind wings are off-white to brown.

Caterpillars feed in groups on lower leaf surfaces and skeletonize the leaves, eventually dispersing to consume the entire leaf, leaving only the woody veins. When an infestation is light, there is usually no problem, but occasionally a heavy infestation develops and entire trees over a large area are defoliated. Most severe defoliation occurs in summer. Even if completely defoliated, trees that are otherwise healthy can be expected to recover.

In autumn, the caterpillars drop to the ground and spin silken cocoons. Unfortunately, this silk is not useful to spin into cloth! In the spring the cocoons transform into pupae. Moths begin emerging from pupae in April and May, when they mate, lay eggs and begin the cycle again. In moderate climates there are often as many as four or five generations per year.

A number of parasitic wasps use the Redhumped caterpillar as a host and usually provide an effective natural control. Sometimes, though, additional control measures are necessary. The simplest of these is to cut off the foliage that contains caterpillars while the insects are still young. At this stage only small branches need to be pruned off to destroy a large group of caterpillars. The foliage can then be burned or the caterpillars crushed.

Bacillus thuringiensis (sold as a variety of products, including Dipel and Thuricide) is an effective spray for Redhumped caterpillar control. It causes a disease-like condition in many types of caterpillars. They stop eating several hours after feeding on a sprayed leaf and die a couple of days later. Spray with *Bacillus thuringiensis* after the first skeletonized leaves have appeared. A forceful spray throughout the entire tree is needed for effective control. The spray will not harm the natural enemies of Redhumped caterpillars and other insects like the more toxic insecticides do.

Meet Your Board Members

Roger Eberhardt
Co-Chair



Roger Eberhardt, our Co-chair, is another “high-flyer” with his roots firmly embedded in the soil! He was born and grew up in Appleton, Wisconsin in a “traditional” middle class home (his father was an electrician and his mother a homemaker). Roger attended the University of Wisconsin, graduating with a BS in Urban Affairs (city planning) in 1966. Five days after graduation, he married Kathy and soon after, he was drafted into the Army. However, he had already applied for the US Air Force Officer Candidate School, so he was allowed to enlist in the Air Force. He wanted to be a pilot, but instead was put into Navigator training and, after completing that training, he served as a Navigator/Bombardier for the next five years—many of his missions were over North Vietnam.

After Vietnam, he was assigned to Maguire AFB in New Jersey where he flew as Navigator of C-141 Starlifters on missions to about 75 different countries around the world.

As this curtailed his home life, and his ability to assist Kathy

with raising their two young sons, Roger decided to give up his active military career. He began graduate school, intending to earn a Master’s degree in City Planning, but before completing his studies, he went to work for a savings and loan company in Milwaukee, Wisconsin. The savings and loan company became a bank and Roger eventually became a mortgage loan specialist—a position he held for 25 years.

During his banking career, he served in the Air Force Reserve, flying in C-130 Hercules aircraft. He flew missions in Desert Storm, made trips during “summer camp”, and flew out of the Canal Zone to South and Central America. He was always a Navigator and retired from the Reserve in 1994 having attained the rank of Lt. Colonel. He and Kathy began their search for the “perfect” retirement location and discovered San Luis Obispo in a “Where to Retire” book. They visited, liked what they saw, and

six months later were residents of San Luis Obispo—buying a 1960's vintage home on a large lot south of the SLO airport. Roger, who is quite a handyman, has been working to renovate the house, and he does the gardening, too. As a matter of fact, his neighbor, Chuck Atlee, saw Roger in his yard working so often that Chuck figured Roger was a perfect candidate for the CRFG.

Apparently, Chuck made a good call, because Roger not only joined our group, but he was willing to co-chair it! His wife, Kathy, says Roger will try growing anything and he loves getting plants from other CRFG members that he can experiment with. She said he is "dangerous" at CRFG plant raffles—he always comes home with a carload of new plants!

Roger is a real "do-it-yourselfer" who owns 3-1/2 vintage autos and a 105 year-old house in Wisconsin. When he isn't assisting with CRFG meetings, he could be working on cars, restoring houses, building display stands or other items for the Historical Society in the Carnegie Library, or running RAM (Retired Active Men) meetings as the current president. Is this "retirement"?

CRFG/Cal Poly Orchard Update

The orchard is looking great—with the exception of a bad (or is that sad?) case of leaf curl on the peach trees. In mid-April, Cal Poly students thinned the peaches to one every 5-6 inches apart, so the crop will be sparse this year. The apple trees will need to be thinned in early May to one apple per cluster unless the tree has a light crop and lots of leaves. Feel free to volunteer for this job! You will certainly benefit if you choose to come pick this wonderful fruit in the fall!

Also, if you visit the orchard, please check the Japanese Maple tree that was planted in January in honor of Richard Shimamoto. It is beneath the big sycamore tree and is not on our drip system. There is a bucket at the gate that can be used to water the maple. The tree—and we—will appreciate your efforts to keep it watered!

Announcements

Welcome New Members in April: Joel McCormick, Michael Blake, Peter Risley, Frank Servedio, and Kathy Longacre.

Budding Class: May 16 is the new date set for this class being led by Joe Sabol and Chuck Atlee. The class is limited to 20 people and there is a \$10 fee to cover expenses. Participants will receive several rootstocks that they will bud under supervision! Applications will be available at the Cal Poly Avocado meeting from Chuck.

Cherry Tasting in Morgan Hill: We have been invited to a "Cherry Tasting Party" by Andy Mariani and our good CRFG friends from Monterey Bay Chapter. Andy's Orchard is well known for having one of the largest selections of stone fruits in California and each year hosts several fruit tastings. Andy's Orchard can be reached from SLO County by driving north on the US 101 to Morgan Hill. Take the Cochrane Road exit and travel east to Mission View Dr. Turn right on Mission View Dr. and continue to Half Road. Turn left at Half Road and travel east about 1/3 of a mile to the entrance sign at 1615 Half Road. There is a \$10 fee for this event. Let's go!

Join the State Association: Many of our chapter members are also members of the State association and those who aren't should consider joining. With state membership you receive a wonderful color magazine, *The Fruit Gardener*, filled with great articles on fruit growing, news, chapter activities and contacts. Yearly dues are **\$30**. Applications are available from **Joe Sabol**.

Local Chapter Fees: A mere pittance of **\$6** will buy you all the wonderful benefits of our local CRFG for a year! Or, for **\$25** you will get **five** years of membership and save **\$5!** Where else can you have so much fun or learn so many interesting things for that price? Send your check to **CRFG Treasurer**, 2430 Leona Avenue, SLO, CA 93401.

Calendar of Meetings - 2004

May 8: Mission Avocados at Cal Poly. We will tour this significant new planting of avocados, a unique partnership between Cal Poly and Mission Produce. Mr. Chris Rhoades will be our guide. **Directions:** Go to San Luis Obispo and then north on Santa Rosa/Highway 1 towards Morro Bay. Enter the Cal Poly campus via Highland, same entrance as we used for Grafting meeting and Pruning meetings. At the first stop sign, turn left. This is Mt. Bishop Road. Take Mt. Bishop Road all the way to the end, a "T"--about one mile. Turn right at the T. This is Stenner Creek Road. Go .6 miles to end of pavement (do not go under RR Bridge)—and turn left at end of pavement, go across creek (50 yards) and turn left again. This is a dirt road. Enter the gates and drive slowly. Follow CRFG Signs. Stay on dirt road about .3 miles to Nelson Reservoir. **Refreshments: I through Q**

June 12: Willow Creek Olive Ranch in Paso Robles. This family-owned and operated olive orchard of 45 acres has an olive press operation that we will see and we will also be treated to an olive oil tasting session. Our contact there is Joeli Yaguda. **Please remember to bring chairs to this meeting.** The street address is: **8530 Vineyard Dr., Paso Robles.** **Refreshments: R through Z**

Festival of Fruit: June 18, 19, 20 at Cal Poly Pomona Bronco Student Center - 3801 W. Temple Ave. Pomona for the Festival of Fruit, celebrating the "Year of the Berry". Let's all go! See the CRFG website at www.crfq.org or Joe Sabol for sign-up!

July 10: John Swift's Place. John is a long time CRFG friend who lives in Clark Canyon, near Los Osos. He grows many types of "rare fruit" for a living, but his specialty is Feijoa. His street address is: **3698 Clark Valley Rd. Los Osos.** **Please remember to bring chairs to this meeting.** **Refreshments: A through H**

October 23: Paul Rys' Pumpkin Patch. Paul is a champion pumpkin grower--he won the Half Moon Bay Pumpkin contest last year for "Most Beautiful." His winner weighed over 500 lbs.! Notice this meeting is in late October--not on our usual second-Saturday-of-the-month. We will need to do some heavy "publicity" on the date change, but it'll be a fun and informative time. Mark your calendars now! Call him regarding pumpkin seeds 544-2825.

Program Ideas: If you have a program idea for **November** of 2004, please call **Joe Sabol** at **544-1056**. The rest of the year is covered!

Note: If you are receiving this newsletter electronically and wish to be taken off the mailing list, please inform me at handynana@hortons.us or you may reach me by phone at **474-6501**. Lennette Horton, Newsletter Editor