

# The Leaflett

California Rare Fruit Growers - Central Coast Chapter

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## 2004 The Year of the Berry

### Red Raspberry

*Rubus Idaeobatus*



While there are raspberries that bear white, yellow and black berries, the species discussed here is the red raspberry. This bramble is indigenous to Asia Minor, named after Mt. Ida, in the Caucasus Mountains. Fruits were gathered from the wild by the people of Troy and the foothills of Mt. Ida around the time of Christ. Records of domestication were found in 4th Century writings of Palladius, a Roman agriculturist, and seeds have been discovered at Roman forts in Britain. The Romans probably spread cultivation throughout Europe. The British popularized and improved raspberries throughout the Middle Ages, and exported the plants to New York by 1771.

While most raspberries ripen in July and August, some mature in September or October, and some in either season (ever-bearing). For varieties fruiting in summer, pruning is done immediately after picking has finished. The old canes must be cut out completely. They will be replaced by the new canes from the rootstock which will then fruit the next year. With autumn-fruiting varieties the fruited canes are cut back during the dormant season (usually in February) and the new canes which appear in spring will fruit in the autumn of the same year.

Raspberries are subject to several virus diseases, especially Verticillium wilt. For this reason it is important to plant only canes obtained from a completely reliable source. Never transplant either wild plants or cultivated plants from another site that you know nothing about. (Tomatoes, potatoes, eggplants, peppers, and brambles are all susceptible to many common diseases, so do not plant raspberries after these crops!)

Raspberries do best in full sun but will tolerate some light shade. They require a more acid soil than most other brambles. In an alkaline soil, raspberries are seriously affected by iron and manganese deficiency. A well-drained soil is also essential, but too sandy a soil will need to have plenty of organic matter incorporated into it. Raspberries need a plentiful supply of water throughout the growing season, with drip irrigation being the method most effective to keep the soil adequately moist.

When planning your raspberry patch, it is a good idea to prepare the prospective bed during the summer prior to planting. Take care to remove the roots of all perennial weeds which may be present. This will save you future grief as raspberries have lots of shallow roots and deep cultivation after planting is inadvisable. Work a generous amount of rotted garden compost or manure into your planting bed--up to 10 pounds per square yard, and even more on sandy soils. Matured mushroom compost may be used, but this material is slightly alkaline and should, therefore, be avoided if your

soil already needs acid amendment (which most soils in our area do need). To insure against a possible shortage of phosphates, dig in one ounce per square yard of super-phosphate.

Raspberries may be planted either in the open or against a fence or wall. In the latter case, the canes can be secured with lengths of strong string tied to staples at the ends of the row at intervals of about 18 inches. A freestanding row will require substantial posts at each end of the row and these should be put in before planting. Metal fence posts make a good permanent installation, especially if they are embedded in concrete. String two lengths of 12 or 14-gauge galvanized wire between the posts at about two feet and three feet from the ground. Plant the canes two feet apart in a row and, if more than one row is wanted, the rows should be six feet apart.

You may plant new canes at any time between fall and spring. If the soil is too wet to work when your canes arrive from the nursery, keep them stored in a cool, dry area with the roots wrapped in damp burlap or sawdust. Conversely, if the roots appear at all dry when planting, soak them in a bucket of water for an hour or so before you place them in the ground.

Planting canes too deep is a common error with raspberries: the roots should be covered by no more than three inches of soil. It is usually possible to see the old soil mark on the stem of your canes, indicating the correct depth. The quickest way to plant a row of raspberries is to dig a shallow trench the width of your spade. As you set the canes in position, spread out the roots evenly and trim off any damaged parts. Replace the soil in the trench, holding each cane erect in turn as the soil is placed over its roots and firmed down by gentle pressure with the sole of your boot. Immediately after planting cut back the canes to a height of two feet and finally lightly rake the soil to break up the surface.

As soon as the growth buds on the canes begin to swell, cut back the canes still further--to a visibly live bud--about 10 inches above soil level. The idea of this is to leave just sufficient top growth to keep the roots active. No cropping must be permitted the first season! After this cutting back, new suckers will spring up from the roots and these shoots are the ones which will fruit in the second season. Once these new shoots are growing well, the 10 inch high pieces should be cut down to soil level.

In the second summer, when the fruit has been picked, cut the fruited canes down to soil level. After the new canes sprout, select the best three or four of even size, removing any odd, extra-vigorous canes and any canes growing up between the rows at a distance from the main rootstocks. All pruned canes should be burned immediately to prevent the spread of disease or pests. The new canes should be tied in to the horizontal wires individually as they grow.

The following February, the canes should be tipped, making the cuts to growth buds about eight inches above the upper wire. This will stimulate better growth lower down where the berries are less liable to suffer wind damage. Birds love them, too, so you might consider covering your crop with bird netting!

While this may seem like quite a bit of work, once you pop a freshly picked raspberry into your mouth, you'll forget the work and remember the taste! Keep fresh berries in the refrigerator and use them as soon as possible. Don't wash them until you are ready to use them. Watch for mold and don't eat berries that may be infected.

Raspberries, besides tasting great, are good for you! They are an excellent source vitamin C and have helpful amounts of iron and potassium—not to mention soluble fiber. Even the leaves are useful! Because of its high tannin content, raspberry leaf tea can be useful for ailments that cause intestinal inflammation and discomfort, such as diarrhea. The herb's astringent quality has inspired

other uses as well, including a raspberry leaf tea mouthwash and gargle to soothe canker sores and sore throats. They are very versatile fruits--used in recipes from desserts, to salads, to main dishes.

### Chicken in Raspberry Sauce

6 boneless chicken breasts	1/2 t. chili powder
1/2 C. raspberry preserves (fruit type only)	1/2 t. curry powder
1/2 C. frozen pineapple juice concentrate (thawed)	1/2 t. garlic powder
1/2 C. soy sauce	1/4 C. fresh raspberries mashed
2 T. rice wine vinegar	

**Garnish:** 1/4 C. fresh raspberries

Combine preserves, pineapple juice concentrate, soy sauce, vinegar, spices and crushed raspberries. Place chicken in a baking dish. Pour the sauce over it. Bake covered for 35 - 40 minutes at 350°F. Remove from oven and transfer chicken to serving platter. Top with pan juices. Garnish with fresh berries and serve with rice.

### May Meeting

Since I wasn't able to attend the May meeting, the following information was kindly provided by **Sandra Pirghaibi**, our former newsletter editor. Thanks so much, Sandra!

"Every time we visit Cal Poly it seems to get larger and the meeting on May 8<sup>th</sup> was no exception. We followed Joe's directions carefully including driving across what seemed a rickety bridge, dirt roads and came out at this beautiful clearing by a large reservoir.

After the business meeting Chris Rhoades, a recent graduate of Cal Poly and employee of Mission Avocados gave us the grand tour of the new avocado grove they planted in partnership with the University. We have ten acres and are used to looking at a lot of avocados but this grove seemed to go on forever!

After an informative talk about the "partnership" the group moved up the hill where we could get a better view of the area. Some members drove as Chris suggested but there was an increasing number who braved the long trek and strong winds to take a look at the vast expanse of new trees.

According to Chris, water is provided to the trees by a combination of drip and sprinkler irrigation that is on a complex computerized watering system. The system somehow figures out when the trees need water and turns on the system. The water source is shared with Cal Poly and the trees looked healthy despite the fact that most of us couldn't keep our hats on!

Mission has a long lease with Cal Poly, provides all the labor and expenses for growing the trees. When the trees begin to produce, they will share in the profits with Cal Poly. According to Chris, they have the same problems most avocado growers have, weeds, disease, pests (no, he didn't have a miracle method for getting rid of gophers).

This particular partnership is an experiment for Mission as it is the only grove they have--they normally just harvest and process avocados. Trees are planted on the hillside and on the new "mounding" method and they have their hands full keeping the squirrels from chewing on the hoses and being, well pesky.

When the tour was over, we all made the trek back to the clearing; luckily it was downhill! Chris should receive a nice thank you for spending so much time with our group on what we understand was his day off.”

## Citrus Budding Workshop

By Joe Sabol



Twelve members of CRFG had a rare opportunity to participate in a Citrus Budding Workshop conducted by Chuck Atlee and Joe Sabol on Sunday afternoon, May 16. The group took a quick walk through Joe's orchard and observed the recent budding activity and then inspected buds for signs of life. After a great "T" budding demonstration by Chuck Atlee on an avocado seedling, the participants practiced the technique on six apple seedling rootstocks and then cut buds into their citrus rootstock. There were more than 15 different kinds of citrus scion wood to choose from. Most of the citrus rootstock was budded to two different citrus! Each participant took home 11 citrus seedlings and 6 apple trees that were budded or will be budded when large enough.

## It's a Blight, Alright!

The peach and nectarine trees in our Community Orchard have fallen prey to the “dreaded” leaf curl fungus, *Taphrina deformans*. Commonly known as peach leaf curl, this disease affects the blossoms, fruit, leaves, and shoots of peaches, ornamental flowering peaches, and nectarines. It is often a problem for backyard gardeners. The distorted, reddened foliage that it causes is easily seen in spring. When severe, the disease can reduce fruit production substantially.

Leaf curl first appears in spring as reddish areas on new leaves. These areas become thickened and puckered, causing leaves to curl and severely distort. The thickened areas turn yellowish gray and velvety as spores are produced on the surface by the leaf curl fungus. Affected leaves later turn yellow or brown and can remain on the tree or may fall off; they are replaced by a second set of leaves that develop more normally unless wet weather continues. The loss of leaves and the production of a second set result in decreased tree growth and fruit production. In addition, defoliation in spring may expose branches to sunburn injury.

Twigs and shoots are also affected, becoming thickened, stunted, and distorted. They often die. Rarely, reddish, wrinkled areas develop on fruit surfaces and as the fruit matures these infected areas become corky and tend to crack. If leaf curl infection builds up and is left uncontrolled, the tree may decline to the point that it will need to be removed.

It takes about two weeks after leaves emerge from buds before fungus symptoms appear. The fungus grows between leaf cells and stimulates them to divide and grow larger than normal, which causes swelling and distortion of the leaf. Red plant pigments accumulate in the distorted cells. The fungus itself breaks through the surface of distorted leaves and produces elongated, saclike structures called asci. Inside the asci are spores known as ascospores, which give the leaf a powdery look. The ascospores are released into the air, carried to new tissues, and divides to form bud-conidia. The fungus survives the hot, dry summer as bud-conidia and ascospores on the tree's surfaces. When the weather turns



cool and wet in fall, the ascospores germinate to produce more bud-conidia. The new bud-conidia and the over-summering bud-conidia continue to increase and eventually a film of bud-conidia is formed on the tree's surface. In spring, the bud-conidia are moved by splashing water and can infect newly developed leaves.

Cool weather prolongs the period of disease development by slowing leaf growth. Development of leaf curl ceases when young tissue is no longer emerging or when weather turns dry and warm (80° to 85°F).

To prevent peach leaf curl, treat peach and nectarine trees **every year** after leaves have fallen (around here that is usually late November to December). Copper-based fungicides including Bordeaux mixture (slurry made of hydrated lime and copper sulfate); tribasic copper sulfate, calcium polysulfides, metallic copper, or synthetic fungicides can be used. **To be effective, copper-containing compounds must have at least 50% copper.** If timed properly, a single fall/winter spray will normally suffice. However, in areas of high spring rainfall (as we had this year), it may be advisable to apply a second copper spray or a lime sulfur treatment, preferably before buds begin to swell, but definitely before bud-break (when green color is first visible). Fungicides containing chlorothalonil also work well in the spring.

There is little you can do to control the disease by the time you see it. Some people remove diseased leaves or prune infected shoots, but this has not been shown to improve over-all control. Pruning in the fall, however, can reduce the amount of spores over-wintering on the tree. Normally, diseased leaves fall off within a few weeks and are replaced by new healthy leaves, unless it is rainy (or foggy)! *If leaf curl symptoms occurred on your trees this spring be sure to treat them once they go dormant to prevent more serious losses next year.*

### Giant Cocoons!



In the May issue of The Leaflett I discussed both silkworms and Redhumped caterpillars. A few weeks ago, I was in Connecticut and Rhode Island and there were thousands of what looked like webs attached to trees along the highways. (From a vehicle traveling at 70 MPH, it appeared that the trees were full of giant spider webs and I sure didn't want to meet one of those spiders!) When we finally found a place where it was safe to stop, we discovered the "webs" were actually giant cocoons with MANY caterpillars emerging from them. I haven't had time to find out what kind of caterpillars these are, but I thought maybe one (or more) of you reading this, who has spent time on the East Coast, might know something about them. If you do, call me at **474-6501** and I'll up-date everyone in the July newsletter.

### CRFG/Cal Poly Orchard Update

The orchard needs you! Maybe the plea wasn't as passionate as the one made by "Uncle Sam"—but work, and pleasure, awaited those **few** who responded to the call for help on Saturday and Sunday, May 22 and 23. Joe Sabol had asked that volunteers bring "a rake, hoe, shovel, clippers, gloves, and a smile", and "a muffin or 12 to share!" His job list looked like this:

1. Thin apples
2. Repair deer damaged trees
3. Move drip line
4. Spread mulch (We have some fresh new citrus mulch ready to spread, thanks to Bob McNeil)
5. Hoe weeds
6. Water Maple trees and gladiolus
7. Rake leaves/walkways (this if for fire prevention around the perimeter of the orchard)
8. Clear old mulch from around tree trunks
9. Taste ripe peaches
10. Repair busted fence (this seems to be an on-going need, thanks to our friendly deer)
11. Enjoy the great weather

There was, sadly, quite a bit of damage done by some visitors to the orchard, but for once, they were of the four-legged variety. As Joe said, "Deer love to eat apple leaves. They also love Asian pear and plum leaves. So far, they do not seem to like our peach or nectarine leaves." (Maybe they don't like the "spice" of peach leaf curl!)

Although the labor turn-out was light, much of Joe's "to-do" list was taken care of, but there is always something that could be accomplished by a willing volunteer. Any time you could donate to keeping up the orchard would really be appreciated. Pet Daniels says it is worth the trip (although during the week there is a \$2.00 parking fee) because the peaches are ripe now. Perhaps it is because there aren't many, but Pet maintains the flavor of the peaches is particularly intense this year and not to be missed. The apricots are coming along nicely, too, and should be ready by the time you read this article. (Please don't take more than one or two pieces of fruit per person and be sure to write the results of your personal "tasting" on the chart in the kiosk.)

The Japanese Maple tree that was planted in January in honor of Richard Shimamoto that is beneath the big sycamore tree 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 May:** Norm and Noel Wheeler, Theresa Houtman, Marilyn Winquist, and Carol Kerwin.

**Cherry Tasting in Morgan Hill at Andy's Orchard on Sunday, June 13 at 10 A.M., 1615 Half Road:** We have been invited to a "Cherry Tasting Party" by Andy Mariani and our **CRFG** friends from the 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

**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](http://www.crfq.org) or Joe Sabol for sign-up! (You may call Joe at **544-1056** if you don't have e-mail access.)

**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**

**August 14: Hearst Castle State Museum Gardens.** We have made a formal request to the Castle Administration to have our meeting for up to 100 people to tour the gardens at Hearst Castle. There, we will hear of the special project that is underway to restore the gardens to the exact way they were back in 1928 to about 1932. The citrus orchard has been restored, but all of the remaining fruit trees have not been fully identified or re-planted! We could help! We will meet in the parking lot and then ride the visitor bus up to the Castle where we will have our meeting, take the tour, and hear the details of the restoration project. Pre-registration is **critical** so that we fill two busses (a total of 100 people). The Castle is more than a state park--it is now an official "State Museum" and it must be returned or restored to the late 1920 to early 1930 time block. This is a serious challenge! The head gardener at the Castle will give us the tour and Bob Gordon, President of the California Garden Clubs, will be one of our speakers! There may be some additional cost involved for this meeting—but no chairs will be necessary!

**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 at **544-2825.**

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