

# The Fruit Leaf

November–December 2004



Newsletter

Santa Clara Valley Chapter

California Rare Fruit Growers, Inc.

## Our December Speaker

Rick Walker will present the basics of tissue culture (TC), describing a simple home setup. He will also explain the ingredients of a typical TC media suitable for growing a wide range of plants, including media that can be mixed by the hobbyist with off-the-shelf ingredients. Rick will bring examples of the equipment and several useful books on the subject. Since TC is considerably more complicated than traditional horticulture, Rick will describe when TC is worth the trouble, and when it is not. There will be time for questions both during and after the talk.

### What is Tissue Culture?

Tissue culture is a modern way of propagating plants by growing them in sterile media. Plants can be started from sterile meristem cuttings, from seeds or from pollen. With no fungi, bacteria or other pests, the plants can be multiplied very rapidly using growth hormones. TC is often used to bring rare plants to mass market reducing collection pressure on wild plants. TC is also used to create large quantities of identical clones, perhaps with special fruit or flowers for the commercial market.

### Tissue Culture in the Kitchen Lab

TC is often considered a high-tech lab procedure. However, a basic kitchen-table setup can use an aquarium for a sterile transfer chamber. Common sense and simple technique make it possible to culture seeds with good results. Plants can be kept for years in the sealed flasks, transferring them only when the media is exhausted or drying out. A stable TC cell line protects from loss of a plant due to accidents in the greenhouse, especially when working with rare plants having unknown cultural requirements.

### Inside this Issue...

Calendar of Events.....	2
Chapter Chair Notes.....	3
Nancy's Garden Bio .....	4
Scion Exchange Preparation Has Begun! .....	5
The Practice of Grafting .....	6
Dues Reminder .....	Back Cover
Are you a CRFG, Inc., Member? .....	Back Cover

### Who is Rick Walker?

A native of California, Rick Walker has a masters degree in computer science. At Agilent Technologies (formerly Hewlett-Packard) from 1981 until 2003, he was a principal project engineer specializing in phased-locked loop theory, high-speed clock recovery design, and coding techniques for fiber-optic data transmission. He has authored numerous professional papers and holds 24 U.S. patents in the areas of high-speed links and circuit design. In particular, Rick was the inventor of the 64b/66b line code adopted by the IEEE for use in 10Gb/s Ethernet.

Rick is presently at, and a founder of, the Aha Learning Center <[www.ahacenter.org](http://www.ahacenter.org)>, an institution devoted to the study of creativity and the development of novel collaborative models for human interaction.

Rick plays bass, guitar, five-string bluegrass banjo, Chinese violin (Erhu) and performs with local groups in the S.F. Bay Area. He is an advanced class amateur radio operator (WB6GVI) and a private pilot. Rick has studied the Chen-Pan Ling (Nanking) integrated style of TaiChi Chuan since 1994.

Rick has a long-standing interest in ecology, biodiversity, and botany. He cultivates many exotic and ethnobotanically interesting plants, including several dozen species of carnivorous plants in indoor terrariums and a backyard greenhouse. Rick is a member of the San Francisco Bay Area Carnivorous Plant Society, and is past president of the International Carnivorous Plant Society. Rick maintains the Carnivorous Plant database which lists photos and taxonomic information for over 850 different species of carnivorous plants. See <[http://www.omnisterra.com/bot/cp\\_home.cgi](http://www.omnisterra.com/bot/cp_home.cgi)>.

CALENDAR OF EVENTS

Santa Clara Valley Chapter of CRFG

December 4 (Saturday) 9:30 A.M.-4:30 P.M	Prusch Park	9.30 A.M.- Orchard maintenance, if it is dry, cut weeds around the trees, bring weed whackers and other tools. Noon: Conference hall doors open. 1 P.M.- <b>Tissue Culture in the Kitchen Lab</b> by Rick Walker. Tissue culture (TC) is a modern way of propagating plants by growing them in sterile media. Rick Walker will present the basics of TC, describing a simple home setup. More details are given in the article on the front page. Board election.
January 8 (Saturday) 9:30 A.M.-?	Prusch Park	9:30 A.M.- Scion collection and bundling at Prusch Park, many hands required. Bring clippers and loppers. Light lunch provided. Further information—Karl Gross: 408-733-5317 or <a href="mailto:kgross@usgs.gov">kgross@usgs.gov</a>
January 15 (Saturday)	Prusch Park	8:00 A.M.- Scion exchange set up in the Prusch Park barn, by volunteers. 10:00 A.M.- Scion exchange open to members only. 11:00 A.M.- Scion exchange open to the public. Grafting demonstrations included in \$5 entry donation, grafting materials available for purchase. Further information—Karl Gross: 408-733-5317 or <a href="mailto:kgross@usgs.gov">kgross@usgs.gov</a>
February 4 (Saturday) 9:30 A.M.-4:30 P.M	Prusch Park	9:30 A.M.- Pruning techniques by Andy Mariani, followed by practice and orchard clean-up, remove clippings, cut weeds, cut suckers. Volunteers bring pruners, shovels, saws, chain saws, weed eaters. Noon: conference hall doors open 1 P.M.-Regular member's meeting: <b>White Sapote</b> by Tom Addison.
March 18-20	San Francisco	San Francisco Flower and Garden Show. We, volunteers, participate in an information and education booth. Contact Katie Wong to join in.
April 2	Prusch Park	Tomato and chili plant sale by the Master Gardeners. The CRFG may have a promotional/educational booth and offer plants for sale.
April 9 (Saturday) 9:30 a.m.-4:30 p.m	Prusch Park	9:30 a.m.-Orchard maintenance. 1 p.m.-Regular members meeting: Topic TBA.
May	Menlo Park	Participation in Sunset Show in Menlo Park – TBA
June 4 (Saturday) 9:30 a.m.-4:30 p.m	Prusch Park	9:30 a.m.-Orchard maintenance. 1 p.m.-Regular members meeting: Topic TBA.
August 6 (Saturday) 9:30 a.m.-4:30 p.m	Prusch Park	9:30 a.m.-Orchard maintenance. 1 p.m.-Regular members meeting: Topic TBA.
October 1 (Saturday)	Prusch Park	Prusch Park Harvest Festival. CRFG will participate as volunteers.
October 8 (Saturday) 9:30 a.m.-4:30 p.m	Prusch Park	9:30 a.m.-Orchard maintenance. 1 p.m.-Regular members meeting: Topic TBA.
December 3 (Saturday) 9:30 a.m.-4:30 p.m	Prusch Park	9:30 a.m.-Orchard maintenance. 1 p.m.-Regular members meeting: Topic TBA.

**Pruning Demonstration by Andy Mariani  
February 5, 2005**

Andy Mariani will give us a pruning demonstration on February 5th, the day of our regular meeting.

This is a huge benefit to us. Andy is a professional and a good speaker. The demonstration will take place in the Heritage Orchard on different kinds of fruit trees.

It is not too late to prune after February 5<sup>th</sup>, and some of us may hold back on our home pruning until we get correctly educated by Andy.

Andy would like to explain and demonstrate pruning for fruit and for scion development on different fruits. We will keep a few trees unpruned for Andy to work on.

More details on our activities on this day will follow.

**Election for Board Members**

At our last meeting the following members "volunteered" for board positions: Nancy Garrison (present Vice Chair); Sarah Sherfy (present programs Chair); Saeko Izuta (new); Jeffrey Wong (new). A particular welcome to Saeko and Jeffrey to the Board!

The open positions to be filled are: Vice Chair, Treasurer, Membership (may be combined with Treasurer), and Programs Chair.

Nominations are still open from the floor and would be appreciated.

We are particularly anxious for volunteers to step up and to offer to take over treasurer and membership from Sini who has been doing these two jobs, and many other things, together for many years. We appreciate it, Sini.

**Apologies to the October Volunteers**

Before our last meeting, a few members showed up to do some weeding. Unfortunately, we sent out mixed starting times causing a few people to arrive earlier than we intended, they then left. Our apologies to these good people.

**Et Cetera**

Thank goodness for the rain; our orchard really needed it. It is such a chore to do that watering, it would be wonderful if a few of our members living close to Prusch Park would volunteer to form a group to water regularly through the summer. Please talk to Ken Sherfy if you can help. (408) 846-5373 or [sherfy@myrealbox.com](mailto:sherfy@myrealbox.com).

January is a big month for us, It is scion exchange month and we need a lot of help, Karl Gross is the scion exchange Manager, please talk to him if you need more information and to show your willingness to help. Look inside for more info.

We need to weed/cut the grass, remove excessive sucker growth, repair/replace damaged water lines and fight gophers and ground squirrels. Please help when called upon, mostly these jobs are taken care of by very few members, which is not fair.

At the next meeting we will reform/elect the new Board, we have some volunteers but if you would like to serve on the Board or as a Chairman of one of the committees then please call me or see me at the meeting.

We need replacements for Treasurer, Membership Chair and Program Chair. Sini has the treasury and membership well organized on computer, which will be

**OFFICERS & BOARD MEMBERS**

<b>Director Chair:</b>	Corrie Grové	650-372-0516	<a href="mailto:freestate@juno.com">freestate@juno.com</a>
<b>Vice Chair:</b>	Nancy Garrison	408-299-8321	<a href="mailto:nancyg2@aol.com">nancyg2@aol.com</a>
<b>Secretary:</b>	Cathy Berwaldt	650-856-1357	<a href="mailto:cberwaldt@hotmail.com">cberwaldt@hotmail.com</a>
<b>Treasurer:</b>	Sini Falkowski	408-446-1992	<a href="mailto:sinif@worldnet.att.net">sinif@worldnet.att.net</a>
<b>Director:</b>	Ken Sherfy	408-846-5373	<a href="mailto:sherfy@myrealbox.com">sherfy@myrealbox.com</a>
<b>Director:</b>	Katie Wong	408-251-2742	<a href="mailto:alivensilk@aol.com">alivensilk@aol.com</a>
<b>Director:</b>	Nick Lolonis	650-574-0998	

<b>Heritage Orchard:</b>	Ken Sherfy	408-846-5373	<a href="mailto:sherfy@myrealbox.com">sherfy@myrealbox.com</a>
<b>Program Chair:</b>	Sarah Sherfy	408-846-5373	<a href="mailto:sherfy@us.ibm.com">sherfy@us.ibm.com</a>
<b>Librarian:</b>	Doron Kletter	650-571-1258	<a href="mailto:Kletter@impact.xerox.com">Kletter@impact.xerox.com</a>
<b>Fruit Leaf Editors:</b>	Todd Kennedy	415-664-8851	
	Bob Allen	650-949-0280	<a href="mailto:boballen@stanfordalumni.org">boballen@stanfordalumni.org</a>
<b>Membership:</b>	Sini Falkowski	408-446-1992	<a href="mailto:sinif@worldnet.att.net">sinif@worldnet.att.net</a>
<b>Propagation Chair:</b>	Doron Kletter	650-571-1258	<a href="mailto:Kletter@impact.xerox.com">Kletter@impact.xerox.com</a>
<b>Scion Exchange Chair:</b>	Karl Gross	408-733-5317	<a href="mailto:kgross@usgs.gov">kgross@usgs.gov</a>

a lot of help to her replacement(s). Sini took care of Treasury and Membership since these two are fairly closely related but can certainly be separated. Please think about these jobs, they do need doing for us to operate. If you need to talk about it, please call Sini or second best call me.

Please do not miss the December presentation on Tissue Culture in the kitchen laboratory by Rick Walker. This is great stuff for growers and propagators which we all are. We have been trying for a long time to have

a presentation on this topic, Thanks to Sarah for finding this exciting speaker.

We have had requests for more social meetings. Firstly to have a group to organize for coffee/tea and cookies at our regular meetings, and, secondly for an annual potluck lunch. We need to get your views on these at our next meeting.

To all of you my best wishes for a wonderful holiday season and a prosperous, healthy and fruity 2005.

### Saeko Izuta's Introduction

Visiting someone's garden is always enjoyable, inspirational, instructive and sometimes stimulating to me. Nancy's garden was no exception. On July 10 of this year, I was one of our Chapter members who were fortunate to respond quickly enough to her invitation.

A passage way lined with massive fruit trees on the one side of the house leads us into the backyard. The whole backyard is divided into four sections orthogonally. The first section is a patio-type space with potted fruit trees along the fence and several elevated boxes of strawberries. Why elevated? She has two quite inquisitive dogs. Adjacent to this is a grass area surrounded by tall trees top of which is covered with passion vines snugly and fearlessly all around. This seems to me a typical example of her love and empathy toward the plants. Let-them-grow-as-they-wish! You notice it everywhere else in her garden. The third section is an orchard. Some trees are old, some are young. Some are grafted heavily, some are not. Most of them are quite productive. The last and fourth section is a vegetable garden separated from other sections by rose bushes and wire fence which rejects the yearning desire of her dogs. In one corner there is a composting area under the tree.

My passion for gardening started in 1971 when I stumbled onto a cabin on a 300 acre cattle ranch in Oregon, which I called home for just over two years. I grew my first garden using only Rodale's book *Organic Method to Farming and Gardening*, which was my bible for years, and the cow pies, which were readily and abundantly available from the resident cows on the ranch. When I saw that first itchy bitsy striped watermelon grow from the size of a golf ball to a 15-pound fruit, I was absolutely hooked and never retreated from an ever-growing and deeply passionate love for gardening.

I ended up going to Cal Poly in San Luis Obispo California to study agriculture and got my bachelors in Crop Science in 1978. My first job was in Los Angeles as the Urban Garden Specialist with the Common Ground Garden Program, putting in demonstration

### Nancy's Garden Bio

gardens in Watts, Compton and all the low income areas throughout Los Angeles County.

In 1980 I changed my position, moving to Santa Clara County to work as the Farm Advisor with the University of California Cooperative Extension, where I worked in urban agriculture until October 2004. I started the Master Gardener Program in 1982 and have trained over 800 volunteers in the ensuing years. My research focus has been on variety selection suited for our climates and soils.

I have had the pleasure of evaluating melons, tomatoes, lettuces, beans, carrots, potatoes, peppers, sapotes, sunflowers, squash, cucumbers, Asian vegetables, summer greens, Latin vegetables, ornamental edible salad greens, and over 100 rare fruits.

I have been "seriously" experimenting with cooking from the garden for the last 16 years and started a cooking from the garden group that has been meeting monthly for the last 4 years with several of my gourmet cooking Master Gardeners. We are always looking for healthier and more delicious ways to prepare the bounty from our gardens.

I've orchestrated public tastings on the many variety trials I have conducted over the years, with growers of specialty produce and with our local California Rare Fruit Growers, undoubtedly reaching over 10,000 people over the last 20 years. This is my passion and I hope to keep exploring and experimenting the rest of my days.

Recent years we have evaluated over 200 varieties of mostly heirloom tomatoes, 100 varieties of chiles, a variety of herbs, beans, melons, summer greens and winter squash.

On the home front, I bought my 1909 simple Craftsman-style home in Willow Glen (San Jose) in 1980 with my primary goal to grow as much of my own food as possible on my quarter acre of land. I chose my property based on finding an adequate lot size with class 'A' agricultural soil. I live on what farmer's fondly

call a "cherry soil" which is an inherently fertile, deep (30 feet of topsoil) well drained clay loam. It is an old alluvial plain.

My first winter I started planting and have never stopped. I have plus or minus 70 varieties of fruits growing and producing including: a large seedling almond, 9 varieties of apples including: Empire, Sierra Beauty, Jonagold, Granny Smith, Garden Delicious, Braeburn, Cox's Orange Pippin, Gravenstein, and Gala, 5 varieties of apricots, 2 varieties of Asian pears, 2 varieties of avocados (Jim Bacon and Pinkerton), 8 varieties of blueberries, a Craigs Crimson cherry, 15 varieties of citrus including Sierra Gold and some kind of Satsuma mandarin (not Owari), Buddha's Hand, Calamondin, Bearss and Mexican limes, Meyer lemon, Washington navel, Oro Blanco grapefruit, variegated pink lemon, Cara Cara Navel orange (pink), strawberry guava, pineapple guava, Cooksey loquat, Black Persian mulberry (dwarf), Frederick's passionfruit (NOT dwarf), 3 varieties of paw paws (*Asimina triloba*), 3 varieties of European pears, 5 varieties of peaches and nectarines, 4 varieties of plums, 5 varieties of plumcots, 6 varieties of raspberries, white sapote, Tamarillo, and a Jiro persimmon.

I also extensively grow vegetables, culinary herbs and flowers for cutting and attracting beneficial insects. With vegetables, I have concentrated on broccoli, kale, chard, summer greens including amaranths, Chenopodiums (5 types), Malabar spinach, New Zealand spinach, red and golden orachs, mâche, specialty lettuces, heirloom tomatoes, ground cherry, rhubarb, melons, peppers, beans and squash, trying something new and different every season.

In herbs, I specialize in tea herbs and have grown and evaluated the following ones including the following mints: Vietnamese, Persian, Lime, Hillary's Sweet Lemon, Berries and Cream, Margarita, Orange, Grapefruit, Ginger, Banana, Spearmint, Scotch mint, chocolate peppermint, Pineapple, and Apple. I've tried 6 different basil: East Indian, West African, lemon balm, Vietnamese balm, lemon grass, and lemon verbena. I also grow other culinary herbs including: parsley, marjoram, summer savory, chives, garlic, poppies for bread seed, cilantro, Vietnamese cilantro (*Polygonum odoratum*), Mexican cilantro, Chinese cilantro, Quilqina (Bolivian herbs that taste like a cross between rue and cilantro), and 10 varieties of garlic and chives.

See <http://www.mastergardeners.org/scc.html> for more information about some of these.

### Scion Exchange Preparation Has Begun! The Year of the Apple

Next year is the "Year of the Apple." Yes, we are ready to start gathering scions for our January 15, 2005 Scion Exchange!

#### Compressed Schedule

New Year's Day falls on the first Saturday of 2005. So we decided to kick the Scion Exchange out a week. The five northern California Chapters have the following schedule for their Scion Exchanges:

Sat. 15 Jan. 2005 – Santa Clara Valley & Golden Gate Chapters

Sun. 16 Jan. 2005 – Monterey & Sacramento Chapters

Sat. 22 Jan. 2005 – Redwood Empire Chapter

#### Gathering & Prep Day

This is always a fun working event for all those who participate. We will be gathering and preparing all the scion wood at Prusch Park on Saturday January 8, 2005 starting at 8:30 a.m. to whenever it takes to finish. This is a great opportunity for all to get acquainted with and learn about the different varieties we maintain in the Heritage Orchard. Because of the compressed schedule this year we'll need ALL the Volunteers we can get. So please put it on your calendar and we look forward to spending the day putting this effort together. Many hands make light work.

And, if you cannot be there on Saturday, Jan. 8, but could put in a few hours work prior to that, let W. Karl Gross know and he might have a couple of other chores to get done, such as tree marking. (408) 733-5317 at home or email: [kgross@usgs.gov](mailto:kgross@usgs.gov). We will have signup sheets for volunteers at the Dec. 4 meeting.

To the Gathering and Prep Day on Jan. 8, you should bring hand-pruners, loppers, spritz bottles to spray the scions in the zip-loc bags to help the scions retain moisture, gloves and, of course, a lunch dish and/or snacks to share with all as we have a great time working and sharing knowledge and information together. Boots, layered clothing, and rain gear are a must if you plan to collect scion material from the Heritage Orchard. It's certainly started out to be a wet year, only time will tell what it is like in Jan. 2005.

(continued on Back Cover...)

Editor's note: Over the last decade or so, a variety of articles on the subject of grafting and scion management have appeared in *The Fruit Leaf*, contributed by Andrew Mariani, C.T. Kennedy, and Richard Young, among others. The editor approached C.T. Kennedy, the instigator with CRFG co-founder John Riley of the first Santa Clara Valley Chapter scion exchange, and asked him to take a fresh look at the subject in preparation for the annual Scion Exchange in January 2005.

Of particular note for event organizers are Todd's suggestions for ensuring the viability of scions to be offered at the Scion Exchange—including collection hygiene and scion storage at or near 32F. Grafters may find interesting the mention of ume, a Japanese apricot, sometimes called a plum, as a scion possibility. Ume fruit is sourer than other plums or apricots and is commonly processed as umeboshi—a sour, pickled plum that is usually enjoyed with cooked rice. Perhaps some of our members have experience with ume that they would like to share in a future edition of *The Fruit Leaf*?

The practice of grafting is an ancient one. Theophrastus, the Greek plantsman credited as the founder of botany who died ca. 288 BC, described the joining of a root and branch, as distinguished from the rooting of cuttings, and catalogued the feasible combinations of fruit trees. It was he who demonstrated that not just any fruits could be joined with others, though some could be made to grow when grafted on unlike sorts of fruits as rootstocks. This is a difficult concept for our members even today, and this article concludes with a list of compatible fruit combinations.

A form of surgery, grafting is that part of horticulture that brings us closest to the realization that plants and animals are not so very unlike after all. The grafter works with living tissue, and works quickly, as plant parts perish in the same manner, and with nearly the same speed, as their animal counterparts. A reasonable degree of precision is required. Although it is not necessary to match nerve with nerve, the grafter must match specialized tissue with its like. Foreign body rejection is likewise found among plants, and the rootstock's first response is to expel alien tissue and close the wound. Infection with fungi, bacteria and viruses is a hazard of grafting also. Clean tools, hygienic surrounding and healthy scionwood are necessary for success.

Grafting is the joining of the subterranean portions of a plant (the "rootstock") with a substantial piece of plant (the "scion"—pronounced "sigh-on") to grow as a new branch or a whole new tree on the rootstock. If the scion is insubstantial, typically merely a single bud to be inserted

into the rootstock stem, the practice is called budding—never "bud grafting," which is nonsensical. Grafting may be done with dormant, deciduous fruit trees or with evergreen fruit trees, though a dormant scion with a dormant rootstock is what we teach in our Chapter meetings. Budding is invariably done with growing, fully leafed plants, typically in late spring or summer. This article deals only with grafting.

Grafting begins with the collection of scions. Pencil-thick, pencil-length, straight sticks make the best scions. The source tree for the scions must be fully dormant at collection time. Avoid collecting, or even contacting by hand, any infected parts of the tree (gummosis, cankers, or fireblight). Do not wait until the New Year to collect scions; scion collecting is done at the plant's convenience, not yours. Soon after the winter solstice, many fruit trees have begun new growth, however subtle it may be. Time-lapse photography will show the buds of stone fruits in San José to be well expanded by New Year's Day, and some plums ('Inca'), all ume (a Japanese apricot), and Chinese quince are in bloom by mid-January.

Expansion of the buds, as well as exposure to room-temperature heat, shortens or ends the viability of scions. Bag and label all scions, and refrigerate them immediately. Use zip-lock plastic bags with a few drop of water; never use paper, which can form mold that attacks the scions. Many or most of the scions offered at our scion exchange have been left out at ambient temperatures, and this is the most likely cause of members' failure at grafting. Store scions at a temperature as close to 32F as possible. Leaving them outside at temperatures over 50F for a day or two will destroy their viability. When scions are not refrigerated, enzymes and microbes act quickly to ferment the scions and destroy nitrogen compounds in their cambium layer.

The optimum rootstock is a young tree, in the ground for one year, with a diameter of ½ inch or so. Diameters over ¾ inch are iffy, and rootstocks over one year old are predisposed to send up sprouts from below ground, in preference to uniting with the scion. Grafting onto established trees at a considerable distance above ground level is highly unsuccessful among stone fruits, always so if the entirety of the tree is not top-worked simultaneously.

Graft when freezing nighttime temperature will no longer occur. Cut the rootstock off within an inch or so of the ground using bypass-type shears (never anvil-type, which crush the wood beyond recovery). Loppers always crush the bark of the rootstock also. The bark and tissue immediately beneath it must be intact.

# The Fruit Leaf

Scion preparation for the graft is a form of whittling, and may be done with a kitchen knife, so long as it has a well-honed cutting edge. Make a fresh cut at the bottom of the scion; then make two slanting cuts on the bias to meet at the center of the scion, the exposed wood of the cuts to be an inch or so in length. Slice away from your hands and body if you are a beginner; a band-aid around your thumb may give more confidence or serve as a reminder to be careful. At the sides will be a thin sliver of scion bark, diminishing to a sharp point. The resulting scion should be a pointed stick; cut the top, leaving three buds on the prepared scion.

For a cleft graft, lay the edge of the knife blade across the diameter of the rootstock and, with a hammer (a leather one makes discreet taps), pound it in, splitting the stock in two, to a length of an inch or so. Try to achieve straight, not ragged, sides to the split; this is difficult when using a steel hammer. A second knife may help to extract the first, at this stage. Keep the first knife inserted, at the center or one side of the split, and insert your scion at the other edge of the split. Except in the case of bench grafting, it is emphatically unnecessary to have the scion and rootstock of the same diameter; in fact, the writer always inserts two scions in every cleft graft, at opposite sides of the split. Sometimes they touch at the center, sometimes not—it hardly matters; but so done, the scions are of course always smaller than the rootstock in diameter.

The next step is the most important. With the knife still inserted and tweaked to allow movement of the scion in the split, jiggle the scion to the outer edge, then back ever so slightly, until the exposed green line in the cut surfaces of the scion matches with a comparable line in

the periphery of the rootstock. This line is the cambium layer; it is the only living part of the tree trunk, and it is essential that the respective cambia are matched. Then insert a second scion at the opposite end of the split, if your rootstock can accommodate it, keeping the knife in long enough to allow the insertion. This second scion is more difficult to move and match with the cambium of the rootstock. Experience is the grafter's only teacher for matching of cambia.

Wrap the terminal portion of the rootstock upwards from where the split is evident with a non-adhesive nurseryman's tape (the translucent green kind, in 3/4-inch width). Never use electrician, Teflon, or masking tape. Pull the tape tightly, or the rootstock will squeeze the scions out. Never wrap across the top of the rootstock surface.

Do not wrap the scions because this will pull them out of cambium contact for sure. Wrapping the entirety of any part in Parafilm is unnecessary and, furthermore, guarantees that cambium contact will be destroyed. Use a small paint brush to paint the cut surfaces and taped portion of the rootstock with pruning paint—avoid the aerosol type, which has weedkiller action. Using delicate strokes, paint only the cut tips and exposed cut surfaces of the scions. Never paint over the buds, which will prevent their growth. Avoid polymer paints, such as Doc Farwell's—they permanently interrupt the "knot" of the wound into continuous wood.

The graft is done. Label it with name of the fruit variety and return periodically to monitor the rootstock and to pull away any sprouts from below the graft, during the next several months.

**Rootstock Compatibility Chart**

Rootstock	Scion
European Pear	European Pear, Northern Spy Apple only, Hawthorn (various species), Medlar (imperfectly compatible)
Apple	Apple, Medlar
Quince	Pear (always dwarfing, many varieties incompatible), Quince, Loquat (dwarfing)
Peach	Peach, Nectarine, Asian Plum (short-lived, many varieties incompatible), Almond, Ume, Apricot, Plumcot
Almond	Almond, Peach, Nectarine, Asian Plum, Apricot, European Plum (many varieties incompatible), Ume, Plumcot
Cherry (Mazzard & Mahaleb)	Sweet Cherry, Sour Cherry
Apricot	Apricot, Plumcot, Ume, Asian Plum (most varieties incompatible), Peach (short-lived), Nectarine (short-lived)
Cherry Plum (Myrobolan & Marianna)	Asian Plum, European Plum (some varieties incompatible), Plumcot, Ume

(Continued from page 5...)

The Scion Exchange returns to **Prusch Park** this year. The main exchange is slated for the Barn, or if it is really nice weather the area in front of the Barn, while the Meeting Hall will house the Grafting Demos and Fruit Variety talks. We will be setting up the Scion Exchange from 08:30 a.m. to 10:00 a.m. Please come and help set up as access at this time will only be given to those who sign up to help. The Exchange will be open to the membership at 10:00 a.m. and the General Public will be admitted at 11:00 a.m. In order to get in at 10 a.m. make sure your membership is current for 2005! The Exchange will be over at 3 p.m. Clean up is usually completed in less than an hour.

**Scion Exchange Details**

The event includes grafting wood and cuttings for rooting, grafting demonstrations and talks, low-cost pamphlets about growing uncommon fruits, and sale of some grafting supplies: labels, Doc Farwells, Parafilm. We have not set all the presentations yet. If you have a suggestion, please call W. Karl Gross (408-733-5317).

**Recording of December Speaker**

We would like to have a record of our December speaker, Rick Walker. Do we have a volunteer who can do this for us, of course with sound?

The film can only be used for our internal education. If you can help with this please, give me a call to discuss it.

*Corrie Grové, Chapter Chair*

**Chapter Memberships due on January 1, 2005**

All Santa Clara Valley memberships are due at the first of the year. Remember, you cannot gain access to the Scion Exchange on January 15 until 11 a.m. with the general public if you are not paid up and current.

The members listed below have paid their memberships for 2005 and beyond: Cathy Berwaldt (05), Lisa Bennett (06), Janice Carr (05), Ted Cunningham (06), Lisa LaRocca (05), Richard Iwanaka (06), Piyush Mehta (05), Joseph Prabhakar (05), Mario Ricci (05), Bit Seto (05), Julian Timm (05), Gail Uyehara (05), Asa Yonemura, and Carmen's Nursery.

Memberships may be paid at the beginning of the December 4, 2004 meeting.

**Are you a CRFG, Inc., Member?**

**Sini Falkowski**

In our local Santa Clara Valley Chapter of CRFG, Inc., we have a large, healthy membership. Alas, not all our chapter members belong to CRFG, Inc., the mother organization. According to organization bylaws, chapter members should also belong to CRFG, Inc. We have never demanded that our local members join the parent organization, but we do fully encourage each chapter member to do so.

Now CRFG, Inc. is in financial trouble and the membership has dropped from over 4,000 members down to 2,000 plus. Some of it has to do with an aging membership. CRFG, Inc. needs to grow the membership quickly in order to survive. If local chapter members do not sustain the parent organization, it will go defunct which means local chapters will cease to exist also. Some say, oh, we don't need CRFG, Inc. and be a group within ourselves here in Santa Clara Valley. That is not entirely true as part of your membership fees to CRFG, Inc. take care of insurance which umbrellas all the chapters. Buying insurance on our own would be prohibitive. All venues including Prusch Park require organizations to carry their own insurance.

Membership to CRFG, Inc. includes a beautiful full color magazine, the **Fruit Gardener**, delivered to your door six times a year. All the articles are interesting to read which I do from cover to cover each issue, and there are columns dealing with organic, container gardening, and a seed bank.



**CRFG, Inc.**  
**Santa Clara Valley Chapter**  
**5124 Forest View Drive**  
**San Jose, CA 95129**

