



Redwood Empire Chapter Newsletter

July 9, 2007

Upcoming RECRFG Events

Save the date for these RECRFG events this summer and fall. Kalia Kliban, our events coordinator, will post times and driving directions on the listserv.

July 22, Saturday -- Our annual plant sale at the Sebastopol Flea Market, on Hwy. 116. The plant sale is where we get rid of lots of the grafted fruit trees we made earlier this year, as well as starts, seedlings, rooted cuttings and runners of whatever's tasty and extra in your garden. Anything brought to the plant sale should be well-labelled, and if it's unusual, please stay on hand to explain to folks how to take care of it. Ornamentals are welcome too, though if space is tight they may be asked to take a back seat to the edibles.

August 25th, Sunday -- A bud-grafting workshop at David Ulmer's house (north Sebastopol).

October 13th, Saturday -- Apple Tasting at Kalia's house (south Sebastopol).

After the tasting, we had the option of participating in one of several discussion groups. I joined the one on cool climate zones, where participants talked about their experiences growing citrus in coastal areas, including San Mateo County, Santa Cruz County, and the East Bay.

I learned that Moro blood oranges don't do very well in cooler areas; participants recommended growing the Tarako



Tasting the Fruit

Citrus Day, 2007

By Linda Robertson

The event, organized by the Contra Cost County Master Gardeners, was held on June 16, at Diablo Valley College in Pleasant Hill. The featured speaker was Ottillia ("Toots") Bier, retired professor and citrus expert from U.C. Riverside. Toots brought budwood and seeds from U.C. Riverside's Lindcove Clonal Protection Program and gave an enjoyable and very informative lecture about citrus varieties and propagation.

I came to Citrus Day knowing almost nothing about citrus and left with just about everything I need to grow my own backyard orchard: the names of at least a dozen varieties that will grow well where I live, information on how to bud graft, and a piece of budwood of my own to experiment with.

The morning began with tasting. Twelve different varieties were sliced in bowls for sampling, including Pixie, Tahoe Gold, Ortanique Tangor, and Tango mandarins, Delfino blood orange, Barnfeld late navel orange, Siracusano Femminello lemon, Mary Ellen sweet lime, Nordman seedless Nagani kumquat, Tavares limequat, and Rio Red grapefruit. My personal favorites were the Pixie and Tango mandarins, which are both seedless, and the Barnfeld orange. The Ortanique had lots of seeds, but a terrific, intense mandarin flavor that makes it great for juicing. The Mary Ellen lime is very low acid; I found it sweet but bland.

variety instead. Mandarins, lemons, limequats, and calamondins work well in areas without a lot of summer heat. Citrus ripen more slowly and later in cooler climates, and they become sweeter the longer they stay on the tree, so it's best to plant varieties that can hang on the tree for a long time without spoiling. Citrus don't send down deep roots, so they adapt well to containers. One person in the group said he uses big plastic storage tubs, the kind with rope handles, for planters, drilling holes in their bottoms for drainage. Someone else talked about the new seedless clementines, including Tango and Caffin, that are just being released to growers in the United States.

Toots Bier's lecture expanded on materials she has posted on the UC Riverside web site (given at the end of this article.) Here are some highlights.

Growing citrus:

- Grow the things you like.
- Grow the more expensive first: choose the types you'd pay more for in the market: blood oranges over, for example, navel or Valencia oranges.

- Select varieties for your climate
- Select varieties that produce at different times of the year.
- The best place to store citrus is on the tree, so select varieties that store well on the tree without spoiling. She mentioned Ortanique tangors and Gold Nugget mandarins as two that do well staying on the tree.
- For places with cold winters, choose cold-hardy varieties, such as kumquats and kumquat hybrids, satsumas, Meyer lemons and sour oranges. Choose varieties you can harvest early, before the worst winter cold hits. Plant in the warmer parts of your garden. Provide protection for cold snaps. Water thoroughly when cold threatens; water is a heat sink.
- For cool summer areas, choose varieties that mature late and hold well on the tree. Go with low-acid varieties (Mary Ellen limes, Oroblanco and cocktail grapefruit), or choose varieties that are supposed to be tart.
- Plant in fertile, well-drained soil, in a sunny, wind-free location, and allow sufficient space for the mature tree, or grow small trees, such as satsumas.



Diablo Valley College Garden

Planting:

- Don't plant citrus too deep; the hole should be the same depth as the rootball, and twice as wide.
- Soil amendments are not usually needed at planting
- Stake the new trees as low as possible; letting the plant wave strengthens it.
- Protect the trunk from sunburn, no matter where you are, until the plant has developed a canopy to shade it. You can protect it by painting the trunk with white latex (not oil-based) paint mixed with water.

Watering:

- If using sprinklers, avoid wetting the trunk. A drip system with microsprayers works well. As the plant matures, move the watering device farther and farther from the trunk.

- Be especially careful to keep trees from drying out from when they flower until fruit is golfball size. Drought causes trees to drop their fruit.

Fertilizing:

- On new trees, use 2 tablespoons of citrus fertilizer in May, June and July. (See web site for fertilizing older trees.)
- Citrus trees need minerals; look for fertilizer with iron, zinc, and manganese.
- Foliar feed with a micronutrient product during growth flushes, when new leaves are 3/4 of their full size. Citrus usually have three growth flushes a year. Foliar feeding is not as effective once leaves mature and harden off.

Diseases:

- Tristeza: not treatable. Phytophthora is a fungus carried by aphids and garden tools. It can be treated with lime and sulfur if the tree isn't overly infested.
- Insects: keep the tree clean, and get rid of ants.

Pruning:

- Usually not needed except to control tree size. Lemons can be pruned up to 20 percent per year. The time to prune is not when the tree is dormant, but between picking the last fruit and August.

Too also recommended some varieties:

Navel oranges: Fukumoto, Washington, Lane Late, Barnfeld, Cara Cara. (Cara Cara is a mutated Washington navel with pinkish flesh whose color derives from lycopene.)

Sweet oranges: Trovita, and two South African varieties, Midnight Valencia and Delta Valencia.

Mandarins: seedless Kishu

Satsumas: Owari

Clementines: Pixie (holds on the tree very well, good for cool areas), Gold Nugget (a favorite), Tango (an improved version of W. Murcott, aka Delight, mutated to be seedless), and Shasta Gold, Tahoe Gold, and Yosemite Gold, three red-fleshed triploids all related to one another.

Grapefruit: Oroblanco (cross with pomelo, sweet, low-acid and seedless), Melogold, Cocktail (seedy but makes great juice), Star Ruby, Rio Red

Pomelo: Sarawak

Lemons and limes: Pink Lemonade, Bearss lime, Mexican lime (and a new variety, the Giant Mexican lime), Tavares limequat, Rio Grande lemonquat, Mary Ellen sweet lime

Exotics: Nordman kumquat (cold-hardy), Yuzu, Sadachi, calamondin, Citrus hystrix (keffir lime), bergamot, Buddha's hand (very cold-sensitive)

The Apple Press

Our chapter has an apple press for loan to members. To reserve it, contact David Ulmer, davidu9999@gmail.com.

Sour oranges: Chinodo (pretty container plant, good for marmalade), Seville, Bouquet de Fleurs, Bouquetiers de Nice (exotic-looking, like an orange with a Buddha's hand folded over it).

Blood oranges: Moro (the reddest), Tarocco (less pigmented but more cold hardy), Sanguinelli (not good for cold climates), Smith Red Valencia (a recently found mutant), Vanniglia (low-acid, lycopene-pigmented), Delfino (late-season).

Propagation:

Much information can be found in the program handouts, which are also available on the Internet (see URLs at the end of this article.)

Growing from seeds: Some citrus are hybrids, but many can be grown from seeds. Most citrus is polyembryonic, meaning that one seed will produce several seedlings. Of these, usually one will be zygotic (a mix of genetic material from both parent plants), and the rest will be genetically identical to the mother tree.

Besides the guesswork involved in growing citrus from seed, one disadvantage is that growing a tree from seed can be very slow, and some trees grown from seed can take a very long time to begin fruiting.

Growing from cuttings: Since a cutting grows on its own roots, a plant grown from a cutting may be more susceptible to diseases from the soil than one grown on a root stock. Also, without a rootstock, it's harder to regulate the tree's growth.

Grafting: Works well, but uses an entire scion for each graft. Citrus trees are grafted in spring and summer, when the plant is actually growing and the bark slips easily..

Budding: Uses less plant material per graft than grafting. Budding is also done during the growing season, in spring and summer.

Selecting rootstock: Flying Dragon was mentioned as a good trifoliolate dwarfing rootstock. However, trifoliolate rootstocks don't do well in lime-rich soils. For compatibility information, Toots recommended a California Department of Agriculture production, California Citrus Rootstocks, no. 21477.

Tips for budding citrus:

- Always sterilize your equipment; Toots recommends a 10 per cent solution of chlorine bleach in water. Dip clippers and grafting knife into it between uses; soaking isn't necessary. You can also dip budwood into the same solution before storing it in the refrigerator for later use.
- When cutting the bark where the bud will be placed, avoid cutting at a place near a thorn, because the bark is tighter there.
- When you bud, put in two at a time (in separate places), for insurance. If both take, keep the upper as your tree. Keep the lower one short, and cut it off when the upper is large enough.
- When the new bud has produced about 10 inches of growth, cut the top of the root stock off, but cut it about a half inch above the graft, to allow for dieback.

After Toots Bier's lecture, there was a tour of citrus in the Adaptive Horticulture class's garden on the campus of Diablo Valley College.

Two other speakers gave talks also. Toots's husband, Bob Bier, demonstrated using the Black Hole gopher trap. And Harvey Correa filled in for Joe Real, for a talk and slide show about Joe's amazing citrus tree, on which he has grafted 60 varieties. Mike Lee wrote about Joe in the September, 2006 newsletter. Joe has a city-sized lot in Davis, on which he is growing 70 fruit trees containing 285 cultivars, in addition to fruit varieties he has grafted onto city-planted street trees in front of his house. The slides showed the amazing citrus tree and the heroic, and successful, measures Joe took to get it through last winter's Arctic blast, including floating row covers, barrels and buckets of hot water, and long-lasting candles with improvised heat deflectors.

Information available on the Internet:

Information about U.C. Riverside's citrus collection can be found at <http://www.citrusvariety.ucr.edu>

Most of the handouts at Citrus Day are available at http://www.citrusvariety.ucr.edu/citrus_segments.html

Information about the Lindcove Clonal Protection Program at U.C. Riverside, and dates and forms for ordering budwood from them: <http://ccpp.ucr.edu/>

Some other useful sites:

IPM pest control site: <http://www.ipm.ucdavis.edu/>

Soil analysis for many areas of California:

<http://casoilresource.lawr.ucdavis.edu/drupal/node/27>

The Citrus Industry, an important book on the history of citrus growing, available on the Web at:

<http://lib.ucr.edu/agnic/webber>

Joe Real and other citrus growers have posted a lot of information, including articles and slide presentations on grafting, on the Citrus Growers' Forum:

<http://citrus.forumup.org>

Ideas for Events Gratefully Accepted

By Kalia Kliban

Does anyone have a garden or orchard they're especially proud of and that they'd like to show off? Is there someplace the group would like to go and check out en masse? Would someone like to host a mid-summer fruit tasting (there are a lot of great plums out there)? If there are a few folks in the same area who might be willing to host a brief garden tour, say around August or September when the gardens are peaking, maybe we could do a few stops in one day, with a nice pub lunch somewhere along the way. Just a thought. Since I'm new to the event-meister job, I'd appreciate any suggestions y'all might have about things you'd like to do.

Kalia can be reached at kalia@sbcglobal.net.

The Chapter Library

By Linda Robertson

Benjamin Schmid needed someone to take over the library and schlep the books to meetings, so I volunteered. As soon as we can manage the shift of the books, I'll be keeping them at my house in Petaluma. People interested in borrowing them can reach Michael, my partner, and me at (707) 766-7102, or by e-mail at:

lindarobertson@mindspring.com

mkurland@continentalops.org

Here are the books currently in the library:

Fruits of Warm Climates, by Julia Morton

Chez Panisse, by Alice Waters

Jujube Premier & Source Book, by Roger Meyer & Robert Chambers

Citrus & Subtropical Fruit, by Ortho Books

CRFG *Fruit Facts* 1&2

Cornucopia II: a Source for Edible Plants, by Stephen Facciola

The World Was My Garden, by David Fairchild

And also a leaf catalog donated by Florence Strange from her garden

Donations are welcome, as are ideas for acquisitions. (Michael is an inveterate hunter of used book stores and willing to keep an eye out for additions to the library.)