

Garden Clippings

Orange County Independent Master Gardeners' Newsletter

Volume 23 Number 1

January 2017

January Meeting

Saturday, January 7, 2017

Patriot Hall

735 S. Brea Blvd.

Brea, CA 92821

Schedule

8:30 – 9:00 a.m.	Setup Plants 'n Things
9:00 – 9:35 a.m.	Business Meeting
9:30 - 10:30 a.m.	Enrichment Program
10:30– 11:00 a.m.	Plants 'N Things
11:00 a.m.	Clean-up

Members with last names starting with **H-Q**, please bring a breakfast snack. Other members are also welcome to bring goodies. Also, please bring along any items you wish to contribute to our Plants 'n Things raffle and any gardening catalogs or magazines you'd like to share.

Enrichment Program: Rocks for Your Garden with Nancy Bird

Nancy Bird is a Past President of the Year Around Garden Club (where she's currently in charge of Horticulture) in Whittier and two non-profit Gem & Mineral Societies in Downey and La Habra. She recently started selling stones and fossils at gem shows and on Ebay.

Did you know you can go out to many places in the Mojave Desert and legally collect your own beautiful garden rocks? All of these places are on well-maintained dirt roads close to either the 15 or 40 Interstates and you can fill up a trunk load a day!

Nancy will have printouts of all the necessary information plus she will have garden rocks suitable for yards or dish gardens for sale.

Gardening Events

Fullerton Arboretum. Pre-register for all classes by calling 657/278-3407

Sat. Jan. 21: "Rose Pruning", 10am – 12pm. Bacon Pavilion. 35/members; \$40/non-members.

Landscape designer Steve Gerischer will simplify the prickly topic of rose pruning.

Roger's Gardens, 2301 San Joaquin Hills Rd., Corona Del Mar, CA 92625, tel.949/640-5800

Sat. Jan. 14: "Rose Pruning Seminar/ Kim Sterling & Lynn Hillman." 10-11am. Free.

Rose experts will show you how, where and when to prune. Includes hands-on practice.

Sat. Jan. 21: "World Class Sweet Peas Seminar/ Steve Hampson". 9- 10:00 am. Free.

Learn how to grow these fragrant plants.

Armstrong Nurseries: Free classes are provided at most locations. Jan. 14 features fruit tree pruning & planting at 9am and rose pruning and planting at 11am. Website is: <http://www.armstronggarden.com/pages/classes>

Tree of Life Nursery 33201 Ortega Hwy, San Juan Capistrano, Tel: 949/728-0685

Sat. Jan. 7, 14, 21, 28: "Replace Your Lawn series". 9:30am. Free.

Jan. 7: "Creating and Caring for Your Native Garden".

Jan. 14: "Kill Your Lawn". Avoid unnecessary labor and learn several successful methods for lawn removal.

Jan. 21: "Design Basics: My Avant Garden".

Jan. 28: "Plant Selection – Inland Gardens"

Leaves from the President



Chilling in the garden

So far at least this year, unlike last year, we seem to be accumulating enough chilling hours for our low-chill fruit trees. Of course, on the flip side is that we had a couple of unpredicted frosts, 20+ mph wind and at my house we have had 6.84 inches of rain so far. So, all and all it looks like it is going to be a “good” winter.

I started getting interested in chilling hours when I noticed that chilling hours alone did not seem to do a good job at predicting fruit harvest in the spring. Some fruit trees that were marked as requiring 200 chilling hours did not do as well as some which were marked as requiring 400 hours.

I start looking at the various chilling hours models on the UC Davis site trying to see if I could gain more insight into predicting what would do well here and what wouldn't.

First, a brief review of Chilling Hours: a chilling unit in agriculture is a metric of a plant's exposure to chilling temperatures. Chilling temperatures extend from freezing point to, depending on the model, 7 °C (45 °F) or even 16 °C (60 °F). Stone fruit trees and certain other plants of temperate climate develop next year's buds in the summer. In the autumn, the buds go dormant, and the switch to proper, healthy dormancy is triggered by a certain minimum exposure to chilling temperatures. Lack of such exposure results in delayed and substandard foliation, flowering and fruiting. One chilling unit, in the simplest models, is equal to one hour's exposure to the chilling temperature; these units are summed up for a whole season. Advanced models assign different weights to different temperature bands.

Chilling in trees acts in two stages. The first is reversible: chilling helps to build up the precursor to dormancy, but the process can be easily reversed with a rise in temperature. After the level of precursor reaches a certain threshold, dormancy becomes irreversible and will not be affected by short-term warm temperature peaks. Apples have the highest chilling requirements of

all fruit trees, followed by apricots and, lastly, peaches. Apple cultivars have a diverse range of permissible minimum chilling: most have been bred for temperate weather, but Gala and Fuji can be successfully grown in subtropical Bakersfield, California.

All models require hourly recording of temperatures. The simplest model assigns one chilling unit for every full hour at temperatures below 7 °C (45 °F). A more sophisticated model excludes freezing temperatures, which do not contribute to proper dormancy cycle, and counts only hours with temperatures between 0 °C (32 °F) and 7 °C (45 °F).

The Utah model assigns different weight to different temperature bands; a full unit per hour is assigned only to temperatures between 3 °C (37 °F) and 9 °C (48 °F). Maximum effect is achieved at 7 °C (45 °F). Temperatures between 13 °C (55 °F) and 16 °C (60 °F) (the threshold between chilling and warm weather) have zero weight, and higher temperature have negative weights: they reduce the beneficial effects of an already accumulated chilling hours.

After dumping the data for my weather station into a spreadsheet and using all three models to calculate chilling hours or chill portions, I discovered some even more amazing facts about chilling hour requirements.

Various sellers of fruit trees publish significantly varying chilling hour requirements for the same variety. Nor do they tell you with which model they calculated the required chilling hours. It is difficult to know the exact requirements. Experiment and ask around for promising local cultivar success stories. I did find that Dave Wilson nursery uses the simple method to calculate required chilling hours.

In summary, I find that using 200 chilling hours as a target for fruit trees in my garden works fairly well. Also, if you live in an extremely hot part of the county, you may want to opt for early ripening fruit rather than late summer, as the fruit can “cook” on the tree before it gets ripe.

Bill McMurrin, President
Orange County Independent Master Gardeners

Don Martin's Corner

270 Million Years

The Ginkgo: the oldest extant tree species. Its status as a “living fossil” is a title shared by few other species, including the horseshoe crab and the nautilus. As the only surviving representative of a highly unusual group of non-flowering plants that appeared at least 270 million years ago, this tree has retained traits over millions of years. An example is the emblematic fan-shaped leaves that are not seen on any other surviving plant species. It further holds a very unique position in the plant evolutionary tree: the Ginkgo is one of five living groups of seed plants that has no living relatives. It's worth noting that the Ginkgo was one of the few things to survive the blast of the atomic bombing of Hiroshima. This hardiness likely helped the longevity of individual trees.

The Ginkgo has a double-knockout punch in its fight against insects by synthesizing chemicals into volatile organic compounds that specifically attract enemies of plant-eating insects. It can also employ an arsenal of chemical weapons against bacteria and fungi. For your information, the tree's genome is also larger than other plant species such as maize or orchids.

Editor's note: Botanist Peter Crane has written a “biography” of the ginkgo in his book “Ginkgo: the tree that time forgot”, published in 2015 and available on Amazon.com.

From the Shady Side of the Garden

Bill McMurrin

Tis the season for online shopping and package theft.

Many of us do at least part of our holiday shopping online. It used to be that the greatest concern about online shopping was Identity Theft. While this is still a big concern, a growing trend lately is the theft of packages after they are delivered. Thieves follow the delivery trucks and wait for it to leave, then help themselves to your presents.

The best way to try and prevent package theft is to have someone at home when it is delivered. However, with our busy schedule and vagueness of delivery times it is hard to do. Online tracking of packages delivery helps, but it still only gets it down to sometime during the day.

I think it is time for us as Master Gardeners to use our collective expertise to help solve this problem, which is why we have developed the **Automated Package Defense and Recovery system, or Audrey for short.**



Simply place the Audrey on your front porch on the day the delivery is due and it

will guard your package until you return home. The Audrey has two modes, the first is surveillance mode as seen above, and feed mode as seen below when a thief tries to remove a package from your porch.



*Not recommended for homes with cats, small dogs or little children.

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