

M. Richards



# CITRUS IN CONTAINERS

## F ILOLI

### GARDENER'S REFERENCE

Visitors are sometimes surprised to see citrus growing and bearing fruit in containers; aside from their sweet and tangy fruits, the versatility of their colors, scents and foliage is often overlooked. Although they do typically bear fewer fruit than they would if planted in the ground, citrus in pots also tend to hold their fruit longer, and they are well suited for use as unique garden ornaments in small spaces or as accents in a larger landscape. In the 17<sup>th</sup> century, King Louis XIV displayed citrus and exotic fruits in this way at Versailles, removing them to a special protected 'orangerie' to avoid the damaging winter cold. At Filoli, a number of citrus pots are showcased each season throughout the gardens, and are removed to their own orangeries at the pool pavilion and greenhouses each winter. Early on, Don Dillon Sr.—owner of Four Winds Citrus Growers—volunteered his time to advise us on citrus care. He has donated most of our current collection, and their pots. Some of our citrus varieties in pots include: 'Meyer' and 'Eureka' lemons, 'Rangpur' and 'Bearss' limes, kumquat, limequat, grapefruit, 'Owari' satsuma mandarin, blood orange, and calamondins.

#### Planting

Filoli's citrus are grown in clay containers no less than 18 inches across and 15 inches deep. A well-drained potting medium is essential; ours consists of one part each clean sand, Filoli compost, and coir fiber (from coconut husks), plus two parts each composted redwood bark and perlite. Starting with a healthy, undamaged, and well-watered plant, gardeners first tease the outer inch of the root ball to encourage spreading root growth, and remove any roots found circling the inside of the pot. The bottom of the pot is filled with moist potting soil so that the crown of the plant rests two inches below the rim of its new container. More moist potting soil is tamped gently into the space around the plant to fill any air pockets, using a dibble stick, and the pot is watered thoroughly.

#### Care

In the height of summer, we water citrus pots deeply once per week, filling

the pot's water well. To avoid rot, keep the soil moist but not wet; the citrus are only watered when the upper inch of soil begins to dry. A plant can usually be rehydrated if it gets too dry, but there is no recovering from rotten roots!

Filoli's citrus also get a weekly dose of Peter's 20-10-20 fertilizer, at a rate of two tablespoons per gallon. This rate may occasionally be supplemented with an 18-6-6 slow-release fertilizer such as *Osmocote*, and pots are flushed periodically with water to leach the soil clear of accumulated salts. It is especially important to maintain adequate levels of nutrients and minerals during warm weather, when citrus flower, fruit, and put on the fastest growth, but citrus are never dormant and need fertilization year round. As winter weather settles in, citrus will continue to grow, but more slowly once temperatures drop past 55°F. At this time, we pull the citrus under cover to protect from damaging low temperatures; they will suffer frost damage if temperatures fall into the 20's.

JAN	FROST CAUTION
FEB	FROST CAUTION
MAR	REPOT AND PRUNE
APR	REPOT AND PRUNE
MAY	REPOT AND PRUNE
JUN	FERTILIZE AND MAINTAIN
JUL	FERTILIZE AND MAINTAIN
AUG	FERTILIZE AND MAINTAIN
SEP	FERTILIZE AND MAINTAIN
OCT	FERTILIZE AND MAINTAIN
NOV	FROST CAUTION
DEC	FROST CAUTION

With spring sunshine and warm air, ideally the citrus are re-potted and pruned before being sent back to the garden. It helps, when trying to pull a plant from its pot, if the soil is moist. Sometimes, though, a pot must be broken and replaced. The plants are then pruned to remove dead, diseased or damaged wood, and in order to maintain their height at around 1 1/2 to 2 times the height of the container. This 'root to shoot' ratio is both aesthetically pleasing and ensures ample water and nutrient uptake to support healthy foliage.



*Citrus madurensis 'Variegated Calamondin' and container-grown citrus at the swimming pool pavilion.*

#### References & Further Reading:

Cultural recommendations: Don Dillon Sr.,  
Four Winds Growers.  
[www.fourwindsgrowers.com/growing](http://www.fourwindsgrowers.com/growing)  
Hartnett, G. (1999). How to Grow Citrus in Containers. *The Sundial Times*, 1, 22.

#### Citrus in containers at Filoli:

- Citrus aurantiifolia* 'Bearss' - Dwarf Tahitian Lime
- Citrus aurantium* 'Bergamot'
- Citrus aurantium* 'Seville' - Dwarf Sour Orange
- Citrus hystrix* - Dwarf Kaffir Lime
- Citrus limon* 'Eureka' - Eureka Lemon
- Citrus limon* 'Variegated Pink Eureka' - Dwarf Variegated Pink Eureka Lemon
- Citrus x limonia* 'Rangpur' - Rangpur Lime
- Citrus madurensis* - Dwarf Calamondin (unknown cross)
- Citrus madurensis* 'Variegated Calamondin' - Dwarf Variegated Calamondin
- Citrus medica* var. *digitata* - Buddha's hand Citron
- Citrus medica* 'Ethrog' - Etrog Citron
- Citrus x meyeri* 'Improved Meyer' - Improved Dwarf Meyer Lemon
- Citrus x meyeri* 'Meyer' - Meyer Lemon
- Citrus x paradisi* 'Rio Red' - Rio Red Grapefruit
- Citrus x paradisi* 'Ruby' - Ruby Grapefruit
- Citrus x paradisi* 'Oro Blanco' - Oro Blanco Grapefruit
- Citrus reticulata* 'Dancy' - Dancy Mandarin Orange
- Citrus sinensis* 'Cara Cara' - Cara Cara Navel Orange
- Citrus sinensis* 'Lane Late' - Lane Late Navel Orange
- Citrus sinensis* 'Moro' - Dwarf Moro Blood Orange
- Citrus sinensis* 'Robertson' - Robertson Navel Orange
- Citrus sinensis* 'Sanguinelli' - Blood Orange
- Citrus sinensis* 'Valencia Midnight' - Dwarf Valencia Midnight Orange
- Citrus sinensis* 'Washington' - Dwarf Washington Navel Orange
- Citrus unshiu* 'Owari' - Dwarf Owari Satsuma Mandarin Orange
- Fortunella crassifolia* 'Meiwa' - Dwarf Meiwa Kumquat
- Poncirus trifoliata* 'Flying Dragon' - Trifoliolate Orange, Japanese Bitter Orange
- x Citrofortunella floridana* 'Eustis' - Eustis Limequat
- x Citrofortunella microcarpa* - Dwarf Calamondin

*Filoli Gardener's Reference sheets are created by garden staff to answer common questions regarding Filoli's traditional horticultural practices. This sheet may be accessed from the Filoli website.*

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