

M. Richards



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GARDENER'S REFERENCE

PEONIES

Visitors often wonder at Filoli's spectacular collection of tree peonies tucked into an upper corner of the panel gardens—many don't realize that peonies will grow in this area, or have never seen them before. There are two basic types of peonies, both of which are grown at Filoli: the tree peony, which is a deciduous woody shrub; and the herbaceous peonies, which die down to the ground every year. Peonies are an unusual sight in the San Francisco Bay Area, because they typically require cold winters to induce dormancy and encourage flowering. Fortunately, Filoli's microclimate—in a cool valley basin—contributes to our success with these spectacular plants.

Why does Filoli have Peonies?

The popularity of peonies can be traced back centuries in Asia and Europe, but they experienced a surge in popularity in Europe and North America during the mid-1800s. They became a hallmark of large-scale estate gardens, arranged in mass plantings by landscape architects who took advantage of newly available hybrids. Throughout the 19th century, several prominent European and American peony hybridizers greatly increased the range of available flower size, color and form.

One such hybridizer, Toichi Domoto of Hayward, developed a number of the tree peonies currently growing in the tree peony bed. Some of these are original plants that were hand-selected by Mrs. Roth from his nursery. When Mr. Domoto decided to close his nursery in the late 1980's, he donated an additional 150 tree peonies, as well as all of the irrigation equipment, soil amendments and expertise needed to develop Filoli's current tree peony bed. In the years since, Mrs. Roth's original plantings were relocated to the new bed, and the collection has been maintained and augmented with new accessions, including eight Klehm / Domoto hybrids donated by Klehm Song Sparrow nursery in Wisconsin in 2005.

The large bed of 'Festiva Maxima' herbaceous peonies is one of the original garden plants from the Bourn era. This plant continues to thrive today in the cutting gardens, along with several other varieties that have different colors and bloom times, and which were added for the flower arrangers.

How cold do they have to get?

Peonies are very forgiving garden plants, but many do require significant cold spells to induce dormancy, and to produce flower buds. For this reason, peonies do very well in the Midwest—they're the Indiana state flower—but can be challenging in west coast gardens where temperatures do not regularly drop either to freezing or into the 40's for extended periods. In Peonies, Allan Rogers estimates that for most cultivars of herbaceous peony, 480 chill hours per year at between 32° and 46° F is sufficient. He also suggests that the ability to fruit apple trees (which also have similar chill requirements) is often an indicator that herbaceous peonies, too, will bloom. Common advice for mild climates is to plant herbaceous peonies' growth buds, or eyes, no more than one inch below the soil surface to minimize the soil's insulating properties.

DEC	DORMANT: FERTILIZE / PLANT
NOV	
OCT	
SEP	WATER WEEKLY
AUG	
JUL	
JUN	
MAY	FERTILIZE / IN BLOOM
APR	DEEP WATER
MAR	
FEB	DORMANT: PRUNE, REMOVE DEBRIS
JAN	

Planting Tree Peonies

Tree peonies, in contrast, should be planted deeply, with their graft union 4 to 5 inches below the soil surface. Tree peonies are grafted onto herbaceous peony root-stock, and deep planting encourages the tree peonies to develop their own root systems. Mulch, a neutral pH (6.5-7), and light shade encourage these plants to thrive.

Peony Care

Panel gardeners follow some standard cultural practices to prevent disease and encourage large, healthy blooms. In California, peonies should be grown in uniformly moist, well-drained soil to maintain vigorous growth and disease resistance. We water peonies in the morning using overhead irrigation, so that leaves dry thoroughly during the day. Peonies should be deeply watered prior to bloom, and then hand watered during bloom to keep blossoms from being water-spotted.

Regular fertilization also ensures healthy root and bud growth. Rogers (1995) recommends two applications of general fertilizer per year—in fall and during flower—such as 5-10-10 or 10-10-10. Peonies do not need Nitrogen-rich fertilizers.

In winter, we prune away dead, diseased or damaged wood and remove dead leaves. Keeping the area free of litter helps prevent Botrytis blight—a fungal disease that overwinters in dead plant tissue. Many growers also recommend removing mulch during winter, to further guard against disease.

References & Further Reading:

Rogers, A. (1995). *Peonies*. Portland: Timber Press.
 Harding, A. (1985). *The Peony*. London: Chaucer Press.
 Lorton, S. R. (1998). Perfect Peonies. *Sunset Magazine*. Cornell University Plant Disease Diagnostic Clinic.
 (2007). *Botrytis Blight of Peony*. Retrieved May 8, 2007 from http://plantclinic.cornell.edu/FactSheets/botrytis/botrytis_blight.htm
 Klehm's Song Sparrow Farms: www.songsparrow.com



Why are they covered in ANTS?!

Before buds open in late spring, the herbaceous peony bed is busy with ants. Rest assured, they are not harvesting aphids, and they are not harming the flower buds—they are simply enjoying the abundant, sticky nectar secreted by peony buds before they open.

Tree Peonies at Filoli:

- Age of Gold
- Alice Harding
- Argosy
- Brocaded Gown
- Cherry Blossom
- Cherry Festival
- Cherry Pie
- Domoto hybrids
- Ezra Pound
- Gauguin
- Golden Ezra
- Golden Madarin
- Leda
- Oriole's Treasured Pearl
- Pink Zhao
- Princess Chiffon
- Purple Queen
- Rose
- Royal Robe
- Rumpled Rose
- Sapphire
- Shimanishiki
- Souvenir de Maxime Cornu
- Stardust
- Toichi Ruby
- Yellow Emperor

Herbaceous Peonies:

- Festiva Maxima (pictured)

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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