

M. Richards



ROSE MAINTENANCE

f ILOLI

GARDENER'S REFERENCE

Filoli's rose garden was originally planted as a mixed color parterre of hybrid tea, grandiflora, and floribunda roses for use in arrangements for the house. Some of Mrs. Roth's plantings, including 'Double Delight' and 'Via Mala', still remain. She particularly loved the long stems of 'Queen Elizabeth' (pictured at left), of which we have an entire bed of original plantings. Today the rose garden still contains mixed colors, but we have expanded the types of roses to include English roses, hybrid perpetuals and standard roses. Many of these are varieties planted for their historical relevance, disease resistance, and also their fragrance; through the warm months of the year, the rose garden is thick with the sweet smell of rose blossoms. Unfortunately, this mass planting is also the perfect breeding ground for several of the rose-grower's greatest enemies: black spot, rust, and powdery mildew. How do we keep all those roses healthy and blooming?

Watering

The rose garden is watered once a week using overhead irrigation. The goal is to water enough to maintain at least a ten-inch depth of uniformly moist soil for good plant growth. A soil probe is used periodically to take soil cores to ensure roses are receiving adequate irrigation. The slope of the rose garden helps to provide excellent drainage, which roses need, but irrigation must be run in several short cycles to avoid runoff and to allow water to percolate into the plants' root zone. To reduce disease problems, it is scheduled to run early in the morning so the roses go into the evening with dry foliage. The overhead irrigation also waters the boxwood hedges.

Fertilizing

The roses are fertilized monthly using 1/2 pound of soluble calcium nitrate and 1/2 pound of slow release *Nitroform* per 100 square feet. The granular fertilizer is weighed out and broadcast evenly over the soil surface. It is important that the foliage is dry so

that the fertilizer does not stick to the leaves and burn. The soil should always be moist before fertilizing and watered in afterwards to dissolve the soluble fertilizer and to wash off any fertilizer left on the leaves. The soil pH is maintained at 6-6.5 using oyster shell lime, which is incorporated into the soil in the winter when the roses are dormant. We typically use from 1-3 pounds per 100 square feet, depending on the soil pH test results. In addition, a 2-3 inch layer of Filoli's home-made compost applied to the soil in early spring seems to work wonders in supplying essential micronutrients and also enhances the soil structure for better root growth.

Insects

Filoli's gardens are managed to minimize pest problems without the use of insecticides or systemic weed and feed products, because of their polluting effects on the environment. We are fortunate that our most common concern in the rose garden is the relatively minor problem of aphids in the spring. Aphids are stimulated by nitrogen-rich foliage, so we are careful to reduce applications of Nitrogen fertilizers in the spring.

DEC	
NOV	GROOM
OCT	
SEP	
AUG	
JUL	
JUN	
MAY	
APR	
MAR	
FEB	PRUNE
JAN	

Weed Control

The worst summer weeds are purslane, oxalis, spotted spurge and quackgrass. We do not use weed and feed products at Filoli; the beds are weeded monthly using hula hoes and hand cultivators. Our compost mulch also makes weeding easier.

Disease Control & Plant Selection

After many years of battling rust, black spot and powdery mildew using routine sprays of fungicides, soaps, mineral oils and even baking powder, Filoli has adopted a no-spray philosophy of rose care. Instead, we plant disease-resistant varieties (see rose lists) to reduce our reliance on pesticides, and we remove any rose that does not perform well given proper water and fertilization. Ultimately, each new rose is chosen for its disease resistance rating, historic value, and fragrance. So far this has saved significant time and resources, while introducing fewer chemicals into the environment and without sacrificing the quality of the display.

Grooming

In the spring and fall, the roses are groomed twice a week to remove spent blooms. During the summer, once a week is adequate. A general rule in grooming roses is to make pruning cuts 1/4 inch above an outward pointing bud, and where a good robust 5-leaflet leaf is located. The bud will soon break and produce a short shoot with a new flower in a few weeks. In order to produce large, showy flowers on sturdy stems, prune back weak, thin canes to a stronger cane.

When roses are dormant, in January or early February, plants are headed back and old canes are sawed off at the crown to encourage the growth of new, healthy

canes. The degree of winter pruning depends on the type of rose and on the plant's vigor, but in general all but the most sturdy, robust framework is removed. Once the roses resume their growth, adequate space between scaffold branches encourages airflow through the foliage. Air movement prevents moist, stagnant air within the foliage, which encourages fungal growth.

References & Further Reading:

- Ott, Noreen. (2001). Rose Pruning Facts. *University of California. Agriculture and Natural Resources Cooperative Extension, Yolo County.* Retrieved May 11, 2007 from: <http://ucce.ucdavis.edu/files/filelibrary/2557/8200.pdf>
- Brickell, C. and Joyce, D. (1996). *American Horticultural Society Book of Pruning & Training.* London: DK Publishing.
- Article Adapted from:
Tolmach, L. (1997). Summer Rose Maintenance Program. *The Sundial Times*, 14, 4.

Rose pruning workshops are held at Filoli in January and early February.



Old Rose Garden

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.

FILOLI CENTER, 86 CAÑADA ROAD, WOODSIDE, CA 94062
(650) 364-8300 WWW.FILOLI.ORG