Ylang-ylang

Perfume used to be a standard gift at Christmas for many people. But all those recipients of Chanel No. 5 and other similar floral scents probably had no idea what gave these products their exotic fragrance. The main source is the flowers of Cananga odorata, commonly called ylang-ylang (EE-lang EE-lang) - although that particular perfume is compounded from rose, jasmine and ylang-ylang flowers. In Tagalog (a Philippine language), ylangylang means "flower of flowers." Besides perfumery, the flowers were also used medicinally for relieving insect stings and snake bites, and to ward off evil spirits.



Cananga odorata in Costa Rica.

C. odorata is a tall tropical evergreen tree native southern India, Malaysia, the Philippines and other islands (including Molucca, Comoros Islands, Réunion, and Zanzibar) but is now pantropical. This is one of about 130 tropical and subtropical plants in the Cananga odorata blooming. (custard-apple Annonaceae



family), many of which are also fragrant. It is fast-growing and blooms when very young, making it an excellent landscape tree in tropical and moist subtropical climates. In favorable conditions C. odorata can grow over 60 feet high on a narrow, smooth-barked trunk. The tree has a nice columnar shape. As it ages, the trunk becomes crooked and slightly contorted. The 5-8" long, pointed oval leaves have wavy margins and are arranged alternately on the brittle, drooping branches.

Another similarly-named plant, the ylang-ylang vine (Artabotrys odoratissimus), also in the Annonaceae, produces fragrant flowers, but it is not a source of commercial perfume. It is very different than C. odorata,

growing as the name suggests, as a woody vine – but with the interesting feature of being supported by hooks formed at the middle of the flower (and later fruit) stalks.

The flowers of *C. odorata* are borne in mass clusters along the elegant drooping branches. Each flower has six long, pointed petals. The buds open to pale lime-green, twisted flowers that turn a rich golden yellow when mature. The large, drooping flowers are up to 6" long. Flowers can be produced at any time of year, but the flowers picked in May or June yield the most oil.



Alternate leaves of Cananga odorata.

Their sweet fragrance is most intense at night, as the flowers are pollinated by nocturnal moths. After fertilization, clusters small fruits are produced. These start out green, but turn dark purple when ripe. They are edible, with a tart, juniper-like flavor, but are rarely eaten.







Young flowers (L), mature, fragrant flowers (C) and fruit (R) of Cananga odorata.



The flowers of *Canaga odorata* are distilled to collect ylang-ylang oil.

The mature flowers are steam distilled to collect the aromatic essential oil. The first distillation produces the best quality oil which is used in aromatherapy and perfumes. The distillation process is repeated on the same batch of flowers to produce lower grade oils (the lowest grade called cananga oil) for other uses, such as manufacturing fragrant soaps and beauty products. About 200 pounds flowers yields 1-2 quarts of the high quality oil. This oil was well-known in East Asia, long before it first reached Europe in the 1860's. Before World War I, the Philippines was the center for ylang-ylang oil production, but after the war, most commercial production was in the Comoros Islands. Production has declined worldwide from competition with synthetic fragrances.

To grow *C. ordorata* in a container, sow the seeds about 1/4" deep in moist potting mix. It may take up to three months for the seeds to germinate, so be patient and keep the potting mix evenly moist and warm. Once the seedlings are about 6" high, transplant into individual pots. The plants should grow fairly quickly (about 3 feet tall in 2 years), but will take 3 years or more to flower.

This plant is only hardy to zone 10, but can be grown in a warm greenhouse. The variety *C. o. fruticosa* is dwarf type, which grows as a shrub or small tree to only 6 feet, making it much more suitable for container culture. This type blooms when only a foot or two high, but the flower fragrance is not as strong as that of the species. Both it and the species bloom best in full sun. Being a rainforest tropical tree, it prefers a high-humidity environment, evenly moist soil, and constantly warm temperatures. Low humidity or too large a difference in night and daytime temperatures may cause the leaves to turn yellow or drop off.

- Susan Mahr, University of Wisconsin

Additional Information:

- Cananga odorata a few photos on Florida International University's website at bio.fiu.edu/trees/sp pages/Cananga odorata.html
- Cananga odorata (ylang-ylang) a species profile on the Pacific Island Agroforestry website at www. agroforestry.net/tti/Cananga-ylang-ylang.pdf