Fortunella margarita (Lour.) Swingle.

Rutaceae

LOCAL NAMES
English (nagami kumquat,oval Kumquat); Japanese (kinkan); Korean (geumgyul); Portuguese (cumquate oval); Thai (somchíd); Vietnamese (cam quất)

BOTANIC DESCRIPTION
Kumquat is a slow-growing, shrub to small evergreen tree, 2-5 m high and up to 3 m large; compact, the branches angled when young, thornless or with a few spines.

Leaves simple, alternate, lanceolate, up to 7 cm long and 3.5 cm wide, finely toothed from the apex to the middle, dark-green, glossy above, lighter beneath.

Flowers white, sweetly fragrant, similar to citrus flowers, 5-parted, borne singly or 1-4 together in the leaf axils; appear relatively late in the growing season (generally late-spring).

Fruit oval-oblong or round, resembles a miniature oval orange, 3-5 cm long and 2-4 cm wide with an orange, edible, sweet rind; contains small, pointed seeds or sometimes none; green within.

Fortunella margarita, also known as the oval kumquat or the Nagami kumquat, is a close relative to Citrus species. Originally placed in the genus Citrus, they were transferred to the genus Fortunella in 1915. The word 'quat' in Cantonese means orange and 'kam' means gold.

BIOLOGY
Kumquat flowers are hermaphrodite, and blooms in late summer/early fall/mid fall and bears profusely with the fruits ripening in March. The trees then enter into a period of winter dormancy early in autumn, so profound that they remain through several weeks of subsequent warm weather without putting out new shoots or blossoms.



Leaves and fruits (TopTropicals.com)



Foliage and flowers (TopTropicals.com)



Fruiting tree (TopTropicals.com)

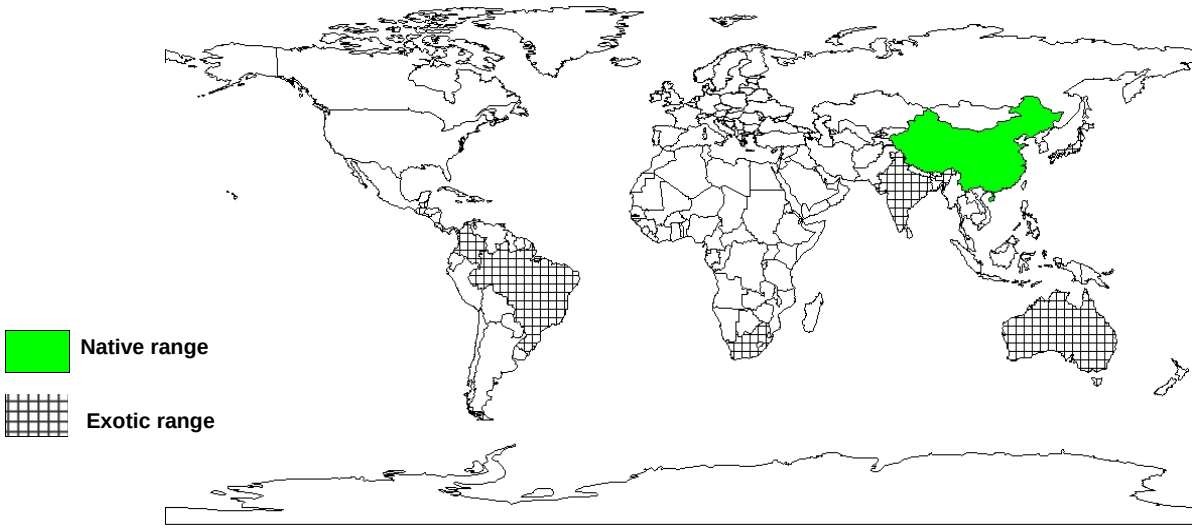
ECOLOGY
Kumquat is intolerant of water logging, is frost tender and withstands negative temperatures of up to -10ºC for brief periods. It can grow in woodland gardens and prefers a moderately heavy, moist loam with a generous amount of compost and sand on a sunny position.

BIOPHYSICAL LIMITS
Altitude: 0-1150 m
Temperature: 26-37ºC
Rainfall: 1100-1500 mm

Soil type: Kumquats prefer well drained and fertile sandy, loamy or clay soils of pH 6.1-6.5

DOCUMENTED SPECIES DISTRIBUTION

Native: China
Exotic: Australia, Brazil, Colombia, Greece, Guatemala, India, Japan, Papua New Guinea, Puerto Rico, South Africa, Surinam, US



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS
Food: The whole fruit, rind as well, is generally eaten fresh. They can also be used in jellies, jams, preserves like marmalade and other recipes or as a flavoring. The fruit is rich in pectin, the inner peel containing about 10%. A liqueur can also be made by macerating kumquats in vodka or other clear spirit.

SERVICES
Ornamental: Kumquat, with its showy foliage, flowers and fruits, is suitable for growing indoors. It makes a great pre-decorated Christmas tree in subtropical climates. It has been grown in Europe and North America since the mid-19th Century, mainly as ornamental dooryard trees and as potted specimens in patios and greenhouses.

Boundary or barrier: Due to its compact growth characteristics and the spines, kumquats can be grown as a living fence.

TREE MANAGEMENT
Kumquats have average water needs, and should be irrigated regularly. They respond well to pruning and need to be fertilized regularly following the citrus fertilizing schedule for optimal growth and good fruit production.

GERMPLASM MANAGEMENT
The seed storage behaviour is described as tropical intermediate. Seeds can store for up to 12 months if dried to about 70% of harvest weight and stored at a temperature of about 4ºC. To break dormancy, seeds should be soaked 24 hours before planting. Seeds are expected to germinate in 14-21 days.

PESTS AND DISEASES
The oval kumquat is susceptible to common Citrus pests and diseases. Among them include: Foot (trunk) rot caused by fungal species of Phytophthora; Virus diseases (Tristeza, Xyloporosis, Exocortis, Psorosis); and many citrus pests including insects (scale, aphids) and mites.

FURTHER READNG

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SUGGESTED CITATION

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