Cydonia oblonga

Mill.

Rosaceae



(Steve Hurst @ USDA-NRCS PLANTS Database)

LOCAL NAMES
English (common quince,quince); French (coing,cognassier); German (quittenbaum,quitte); Portuguese (marmelo); Spanish (membrillo,membrillero)

BOTANIC DESCRIPTION
The quince is a deciduous shrub or small tree, 4-6 m high and 3-4.5 m spread, with crowded gnarled branches and a low crooked habit. Young branchlets are covered with pale greyish wool.

Leaves oval or elliptical, 5-10 cm long by 4-6 cm wide, dark green above, pale with a dense felt of grey wool beneath (especially when young). They turn a rich yellow in autumn.

Flowers 5 cm across, pink or white, solitary at the end of short twigs, Trees are self-fertile, with a good fruit set in both cool and hot climates; pollination is via bees.

Fruits light golden-yellow, green or orange, usually pear shaped but sometimes round and apple-shaped and very fragrant. The fruit pulp is firm, aromatic and contains gritty cells. Individual fruits can weight up to ½ kg or more and contain poisonous seeds.
The fruit is known for its intense sweet candy-like scent.

BIOLOGY
Most cultivars start cropping at about 5 years of age. The flowers are hermaphrodite and are pollinated by insects. Flowering occurs in May or early June just after the leaves, and the seeds ripen in November.

ECOLOGY
Woodland, secondary, sunny edge, dappled shade, shady edge and thickets.

BIOPHYSICAL LIMITS
Altitude: 100-2100 m
Temperature: hardy to about -15°c, tolerates quite deep shade but is unlikely to crop there.
Rainfall: 760-1500 mm
Soil type: Succeeds in most soils but prefers a light moist fertile soil (neither very dry nor waterlogged) and a sunny position; very alkaline soils cause chlorosis.

DOCUMENTED SPECIES DISTRIBUTION

Native: Armenia, Azerbaijan, Iran, Russian Federation, Saudi Arabia, Turkmenistan
Exotic: Chile, China, France, Greece, Iraq, Italy, Mexico, Portugal, Turkey, Venezuela



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: Quinces have long been used for flavouring apple pies, ices and confections. It is used in jellies, preserves. The fruit is edible fresh, for juices, and prepared in a variety of recipes or cooked. They are delicious stewed, baked, made into fruit butter etc. It contains high level of pectin, which ensures that any jelly made with it sets easily. The fruit is also known to contain protein, fat, carbohydrate, calcium, phosphorus, iron, sodium, potassium, vitamin A and vitamin C in substantial quantities. Wine and cider can be made from the fruit. The wine was popular in Britain in the 19th C, and is reputed to benefit asthma sufferers.

Medicine: The fruit is astringent, cardiac, carminative, digestive, diuretic, emollient, expectorant, pectoral, peptic, refrigerant, restorative, stimulant and tonic. A syrup made from the fruit is used in the treatment of diarrhoea and is particularly safe for children. The fruit, and its juice, can be used as a mouthwash or gargle to treat mouth ulcers, gum problems and sore throats. The high levels of pectin in the fruit is also said to protect the body against radiation it also helps to reduce blood pressure.

Apiculture: Bees feed on nectar from the flowers.

Tannin or dyestuff: Quince leaves contain 11% tannin and can be used for tanning.

Other products: Mucilage obtained from the seed coat is used as a gum arabic substitute to add gloss to a material. The seed contains 20% mucilage and 15% fatty oils.

SERVICES
Other services: The fruits are so fragrant that a single fruit can fill a room with its rich fruity scent; quinces were once popular as room deodorizers.

TREE MANAGEMENT
Quinces can be trained to a single trunk to make a small tree, or can be grown as a bush with multiple stems. Spacing of 4.5-6 m apart is adequate. In less favoured places it can be trained as a fan or espalier against a wall. Trees may need staking for a few years.

Initial framework training consists of winter pruning to cut back leaders by a third of the season's growth to an outward bud, after which almost no pruning is required; the minimum of winter pruning should be carried out to remove any dead wood and keep the centre of the tree open

Watering is necessary during growing season; little care is needed during dormant periods.

Fruits should be left on the tree as long as possible to achieve the best flavour, but must be picked before frosts.

GERMPLASM MANAGEMENT
Seeds require 4 months of cold stratification, preferably preceded by 2-4 weeks of warm stratification, germinated, pricked out into individual pots and grown on a cold frame at least for their first winter before planting out in late spring or early summer, after the last expected frosts.

PESTS AND DISEASES
Quinces are generally free of pests and diseases but sometimes suffer from leaf blight caused by Entomosporium maculatum and characterized by dark red spots on leaves, which turn yellow and fall early; can spread to fruits. Brown rot of fruit caused by Monilinia spp. and fire blight are also probable. In N. America it is susceptible to the oriental fruit moth.

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