

Citrus aurantium

[Synonyms : *Aurantium acre*, *Aurantium citrum*, *Citrus amara*, *Citrus aurantiacum*, *Citrus aurantium* var. *amara*, *Citrus aurantium* subsp. *aurantium*, *Citrus aurantium* var. *bigaradia*, *Citrus bigaradia*, *Citrus bigarradia*, *Citrus buxifolia*, *Citrus florida*, *Citrus hystrix*, *Citrus vulgaris*]

BITTER ORANGE is an evergreen tree. Probably a hybrid from south-eastern Asia, it has small fragrant, pink or white flowers.

It is also known as *Arancia amara* (Italian), *Arancia forte* (Italian), *Arancio amaro* (Italian), *Bergamotta* (Portuguese), *Bigarade* (English, French, Spanish), *Bigarade*, *Bigarade orange*, *Bigaradier* (French), *Bigarde* (French), *Bigarrade*, *Bitaa orenji* (Japanese), *Bittere Orange* (German), *Bitterorange* (German), *Bittere sinaasappel* (Dutch), *Burtuqâl* (Arabic), *Burtuqân* (Arabic), *Cam chua* (Vietnamese), *Cam đắng* (Vietnamese), *Chanh đắng* (Vietnamese), *Cheng* (Chinese), *Daidai* (Japanese), *Fleur d'oranger* (French), *Gorka naranča* (Croatian), *Hapanappelsiini* (Finnish), *Hunaja-appelsiini* (Finnish), *Jeruk manis* (Malay), *Jin qiu* (Chinese), *Kabbâd* (Arabic), *Kahil* (Visayan), *Kali jyamir* (Nepali), *Karna* (Malayalam), *Khatta* (Hindi), *Khushkhash* (Hebrew), *Laranja-azeda* (Portuguese), *Laranjeira* (Portuguese), *Laranjeira azêda* (Portuguese), *Laringa tal-bakkaljaw* (Maltese), *Makea appelsiini* (Finnish), *Marmalade orange*, *Melangola* (Italian), *Melangolo* (Italian), *Melarancia* (Italian), *Melarancio* (Italian), *Naarangii* (Hindi), *Naaringii* (Hindi), *Naffâsh* (Arabic), *Nagrunga* (Sanskrit), *Nâranj* (Persian), *Naranja* (Spanish), *Naranja ácida* (Spanish), *Naranja agria* (Spanish), *Naranja amarga* (Spanish), *Naranjo* (Spanish), *Naranjo agrío* (Spanish), *Naranjo amarga* (Spanish), *Naranjo de fruta agrío* (Spanish), *Naranjo mateca* (Spanish), *Nâring* (Arabic), *Nâring* (Arabic), *Neratzi* (Greek), *Neratzia* (Greek), *Orange* (English, French), *Orange amère* (French), *Orange blossom*, *Oranger* (French), *Oranger amer* (French), *Oranger à fruits amers* (French), *Oranjeappel* (Dutch), *Pomerančza gorzka* (Polish), *Pomeranets* (Russian), *Pomerans* (Danish, Swedish), *Pomeranssi* (Finnish), *Pomeranze* (German), *Pomeranzenbaum* (German), *Poor man's orange*, *Santara* (Hindi), *Sawaa orenji* (Japanese), *Seville orange*, *Som* (Thai), *Som kliang* (Thai), *Sour orange*, *Suan cheng* (Chinese), *Swivel sweet*, *Tapuz marir* (Hebrew), *Turunç* (Turkish), *Winter orange*, and *Zorany sí* (Creole); and in flower language it is said to be a symbol of bridal festivities (flowers), chastity (flowers), generosity (tree), and 'your purity equals your loveliness' (flowers).

See Also Sweet orange (*Citrus sinensis*) as many of the names are interchangeable.

The flowers are collected by shaking the plants and catching the flowers on large sheets. From about 1680 the flowers have been distilled (together with those of some sub-species [see bergamot orange, *Citrus aurantium* subsp. *bergamia*].) to produce 'neroli' (essential oil) but today the process is simplified by using volatile solvents. Essence, known as *petit grain* is obtained by distilling leaves, flowers and small fruit. A by-product of this process is 'orange flower water'. Oil is also extracted from the seeds.

Warning – bitter orange should not be taken internally if suffering from arthritis or migraine.

Oil of orange can cause dermatitis.

Aurantium means 'orange-coloured'.

It is believed that a species of the bitter orange reached China from India in about 2200 BC.

According to the *Yu Kung* manuscript Emperor Tayun, who reigned from about 2205 BC to 2197 BC, received oranges (and pomelos, *Citrus maxima*) in tribute. The yellowish-orange fruit were highly thought of in the East, particularly for the medicinal qualities of the juice and its essential oils, both of which are referred to in Sanskrit records.

Although some authorities have claimed that oranges were first mentioned in records outside China in the 1st Century in Rome (and that the Greeks also knew of the fruit) others believe that, apart from any literature in the Far East, the Arabs made the first known written references. It seems to have reached the Arabs from the traders who transported the fruit along the Silk Road from China to the Middle East, not via their own caravans from India. In any event it is unlikely that the tree was grown in Europe before the 8th Century when the Moors introduced it to Spain. These fruit, the bitter oranges, could be seen on Roman banqueting tables by the 2nd Century, but they were being imported from Palestine. At about this time the Arabs began to establish vast orange groves in North Africa. These were watered by a system of earthenware pipes, and authorities have noted that one of these groves still relying on its original irrigation system can be seen today just outside Tunis.

By the 12th Century vast orange orchards could be found in Spain, from Granada to Seville, established under Arabian guidance. At the same time from the 11th-13th Centuries the Saracens raised the orange in Sicily as well. By the 14th Century the bitter orange was as familiar an ingredient in European cookery as it was in Arabian.

From documentation it seems that oranges, still not as sweet as those today and extremely expensive, were actually being imported into Britain by at least the mid-13th Century because records show that Eleanor of Castile (c.1245-1290), who married Edward I of England in 1254, bought seven oranges from a Spanish ship which docked in Southampton with a cargo of the fruit. When she lived in Pamplona, in Spain, before her marriage, she had grown an orange tree in a tub – a tree, if its tale is to be believed, destined to be well travelled, and one which would never fruit and would be hundreds of years old at its demise. It is said to have fallen into the hands of Charles Bourbon (1489-1537), of the eponymous French royal house, who in 1515 was made Constable of France and became Duke of Vendôme. He lost both tree and tub to the Queen Mother, Louise of Savoy (1476-1531) when she confiscated them, and the plant was eventually the centre-piece of a specially built orangery in Fontainebleau. From there the tree was moved to Versailles, where it remained, tended, until its death in 1858.

For the 12th Century Crusaders orange blossom symbolized fertility, as fruit and blossom appear on the tree at the same time, and it was they who carried the Saracen practice of including orange blossom in bridal flowers through Europe to its Western reaches. However, possibly because the blossom was rare at that time in their respective homelands, the widespread use of this custom did not develop until the 17th Century and only crossed to Britain from France at the beginning of the 18th Century.

This bridal practice is recalled in Lord Tennyson's (1809-1892) *Ode to Memory* when he writes

.....
Like a bride of old
In triumph led,
With music and sweet showers
Of festal flowers,
Unto the dwelling she must sway.

Earlier an English lady, Charlotte Smith (1749-1806) most often remembered as a novelist (although among her peers she is considered by many to be one of the leading

Romantic poets) had written of the orange tree from a different perspective in *To the Humming Bird*.

There, lovely bee-bird! mayst thou rove
Through spicy vale and citron grove,
And woo and win thy fluttering love
With plume so bright;
There rapid fly, more heard than seen,
'Mid orange-boughs of polished green,
With glowing fruit, and flowers between
Of purest white.

As the centuries passed and horticultural expertise increased, sweeter and sweeter varieties of the bitter orange emerged. The sweet orange trees (*Citrus sinensis*), which were to be imported by the Portuguese from India in the 1520s, were still unknown in Europe at this time. However, once they were introduced these far sweeter relatives would rapidly supersede the familiar and long established bitter orange.

The bitter orange was also held in the highest regard by many as a plague preventative, and Nostradamus (1503-1566) the French physician and astrologer, more often remembered today for his enigmatic predictions, included the fruit and blossom in the preparation of cosmetics.

It is alleged that neroli oil, which has a penetrating but bland scent, was created in the 17th Century by or for Anne-Marie de la Tremoille. She has been described as a French-born Italian princess (married to a Prince Orsini de Nerola). Some authorities elaborate by describing how she is supposed to have worn the oil on her person and her gloves, and to have added it to her bathwater.

The fruit themselves are in much demand today commercially and domestically for making marmalade. Orange flower water, made on a large scale, is used as a commercial flavouring by the food and drinks industries in confectionery and pâtisserie, and in various drinks. It is also employed by the pharmaceutical industry as a medicinal flavouring.. Neroli, the essential oil, is used as a commercial flavouring for confectionery too. The drinks industry uses neroli and the fruit rind for making commercial liqueurs and aperitifs eg. Cointreau, Curaçao, Grand Marnier – and neroli is also used in commercial perfumes. *Petit grain*, the essence, is employed by the toiletry industry in soap manufacture and by the pharmaceutical industry in some proprietary medicines.

The wood was not only chosen by archers for their bows (and has been used by carpenters for furniture and inlay work) but in days long ago it was also fashioned into pointed spikes that may have been one of the European forerunners for toothbrushes.

At some point the tree appeared in Florida as records indicate that the Seminole Indians living in that area not only ate the fruit but also made bows out of its wood.

Medicinally, herbalists used essential oil extracted from the peel of the bitter orange to treat indigestion and loss of appetite.

See Also Sweet orange (*Citrus sinensis*).