

Lemon Tree



The lemon (*Citrus limon*) is a species of small evergreen trees in the flowering plant family Rutaceae, native to Asia, primarily Northeast India (Assam), Northern Myanmar or China.

The tree's ellipsoidal yellow fruit is used for culinary and non-culinary purposes throughout the world, primarily for its juice, which has both culinary and cleaning uses. The pulp and rind are also used in cooking and baking. The juice of the lemon is about 5% to 6% citric acid, with a pH of around 2.2, giving it a sour taste. The distinctive sour taste of lemon juice makes it a key ingredient in drinks and foods such as lemonade and lemon meringue pie.

History-

The origin of the lemon is unknown, though lemons are thought to have first grown in Assam (a region in northeast India), northern Burma or China. A genomic study of the lemon indicated it was a hybrid between bitter orange (sour orange) and citron.

Lemons entered Europe near southern Italy no later than the second century AD, during the time of Ancient Rome. However, they were not widely cultivated. They were later introduced to Persia and then to Iraq and Egypt around 700 AD. The lemon was first recorded in literature in a 10th-century Arabic treatise on farming and was also used as an ornamental plant in early Islamic gardens. It was distributed widely throughout the Arab world and the Mediterranean region between 1000 and 1150. An article on Lemon and lime tree cultivation in Andalusia of Spain is brought down in Ibn al-'Awan's 12th-century agricultural work, Book on Agriculture.

Varieties

Detailed taxonomic illustration by Franz Eugen Köhler.

The 'Bonnie Brae' is oblong, smooth, thin-skinned, and seedless. These are mostly grown in San Diego County, USA.

The 'Eureka' grows year-round and abundantly. This is the common supermarket lemon, also known as 'Four Seasons' (Quatre Saison's) because of its ability to produce fruit and flowers together throughout the year. This variety is also available as a plant to domestic customers. There is also a pink-fleshed Eureka lemon, with a green and yellow variegated outer skin.

The Lisbon lemon is very similar to the Eureka and is the other common supermarket lemon. It is smoother than the Eureka, has thinner skin, and has fewer or no seeds. It generally produces more juice than the Eureka.

The 'Femminello St. Teresa', or 'Sorrento' is native to Italy. This fruit's zest is high in lemon oils. It is the variety traditionally used in the making of limoncello.

The 'Yen Ben' is an Australasian cultivar.

Nutrition and phytochemicals

Lemon is a rich source of vitamin C, providing 64% of the Daily Value in a 100 g reference amount (table). Other essential nutrients are low in content.

Lemons contain numerous phytochemicals, including polyphenols, terpenes, and tannins. Lemon juice contains slightly more citric acid than lime juice (about 47 g/l), nearly twice the citric acid of grapefruit juice, and about five times the amount of citric acid found in orange juice

Lemon juice, rind, and peel are used in a wide variety of foods and drinks. The whole lemon is used to make marmalade, lemon curd and lemon liqueur. Lemon slices and lemon rind are used as a garnish for food and drinks. Lemon zest, the grated outer rind of the fruit, is used to add flavor to baked goods, puddings, rice, and other dishes.

Juice

Lemon juice is used to make lemonade, soft drinks, and cocktails. It is used in marinades for fish, where its acid neutralizes amines in fish by converting them into nonvolatile ammonium salts. In meat, the acid partially hydrolyzes tough collagen fibers, tenderizing it. In the United Kingdom, lemon juice is frequently added to pancakes, especially on Shrove Tuesday.

Lemon juice is also used as a short-term preservative on certain foods that tend to oxidize and turn brown after being sliced (enzymatic browning), such as apples, bananas, and avocados, where its acid denatures the enzymes.

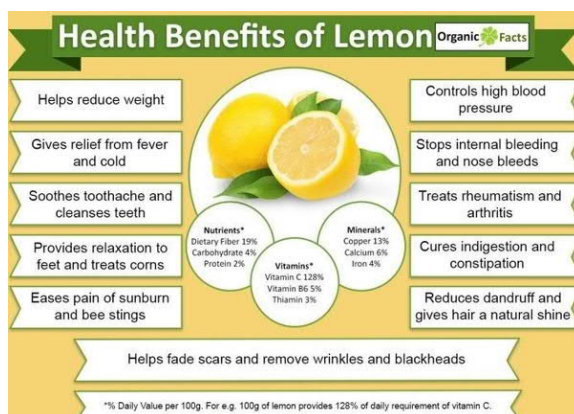
Peel

In Morocco, lemons are preserved in jars or barrels of salt. The salt penetrates the peel and rind, softening them, and curing them so that they last almost indefinitely. The preserved lemon is used in a wide variety of dishes. Preserved lemons can also be found in Sicilian, Italian, Greek, and French dishes.

The peel can be used in the manufacture of pectin, a polysaccharide used as a gelling agent and stabilizer in food and other products.

Oil

Lemon oil is extracted from oil-containing cells in the skin. A machine breaks up the cells and uses a water spray to flush off the oil. The oil/water mixture is then filtered and separated by centrifugation.



References-

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