

Passion Fruit



BOTANY

Passionfruit is a woody, perennial vine that occurs in two forms; *Passiflora edulis Sims* known as Purple passionfruit and *Passiflora edulis flavicarpa* known as yellow passionfruit. Other common names are: Granadilla, Maracuyá.

Leaves are ovate, three-lobed with serrate edges, light green in the purple variety. The leaves of the yellow variety are longer with reddish marks resembling the stem wood.

The stem usually extends between 20 and 50m or more, even up to 80m. The whole plant supports itself on vegetation by means of tendrils that arise at the leaf axils.

Flowers are white with purple rays, usually aromatic and give egg-shaped or sphere-like fruits.

The yellow-fruit variety is edible (passion fruit). The fruit is a globose or ovoid berry, 35 to 80mm in diameter, up to 30gr in weight.

The yellow passion fruits are longer than the purple fruits. The rind thickness also varies between the yellow and purple forms. The white endocarp contains many dark seeds enveloped in small sacs filled with edible aromatic yellow-orange pulp. The ripe fruit withers and falls.

CHEMISTRY

The most abundant sugars in passion fruit are glucose and fructose. It also contains citric, lactic and malic acids. Much like many other fruits, passion fruit is an excellent source of fiber, vitamins and minerals.

As many other fruits, passion fruit is an excellent source of fiber, vitamins and minerals. The vitamins in passion fruit are A, B1, B2, B3 and C. Vitamins are essential to our body, where they act mainly as coenzymes with catalytic functions. Vitamin B3 – niacin (nicotinic acid) – is involved in the synthesis and degradation of carbohydrates, fatty acids and amino acids.



Passion fruit is also a good source of several minerals: potassium, calcium, phosphorus, magnesium, iron, manganese and zinc. Selenium takes part in the antioxidant cell system, responsible for maintaining cell membrane structure and functions. This mineral acts together with vitamin E to prevent damages caused by oxygen free radicals.

Additionally, passion fruit contains carotenoids with pro-vitamin A activity and anti free radical effects. Passion fruits have sedative and relaxing properties. Maracuyá is recommended:

- To lower blood pressure
- As a sedative
- As a vitamin C source

TRADITIONAL USES



Linnaeus was the first to classify the genus *Passiflora* in 1735. Passionfruit was given its common name in Europe, due to the resemblance of its flowers with the symbols of the passion of Christ (the crown of thorns, the nails, etc.)

Maracuyá or Passionfruit is native to South America. It soon became spread through Central America, reaching China and other regions of Asia. It eventually naturalized in Africa and the Caribbean.

This fruit was introduced into Europe in 1629. Botanists and horticulturists immediately adopted it and used to grow it into their greenhouses during centuries XVII and XVIII.

The refreshing beverage “maracuyá” is extracted from this fruit.

COSMETIC PROPERTIES and APPLICATIONS

Due to its richness in sugars and organic acids, Maracuyá can be employed in every kind of moisturizing cosmetics. Additionally, adding it to bath soap and shampoo contributes to reduce the aggressive actions of tensio-active agents and to hydrate and make skin and hair smoother.

It can be added to anti-aging and sun protection products due to its vitamin C and carotenoid contents, which actively scavenge free radicals and reduce deleterious effects of sunlight.

Additionally, its selenium content makes passion fruit suitable for anti-aging products, since it takes part in the antioxidant cell system, responsible for maintaining cell membrane structure and functions. This mineral acts together with vitamin E to prevent damages caused by oxygen free radicals.

RECOMMENDED DOSE

The recommended dose is between 2% and 10%.

