

LEMON



Origin: The lemon is native to Southeast Asia, although it is currently produced in all tropical and temperate areas of the world.

The lemon is probably originally from southern China where the fruit is worshiped as a symbol of happiness, and has been cultivated in Asia for more than 2,500 years. Once the cultivation spread throughout China, it reached the area of present-day Iran. It was the Arabs from the 10th century who spread it throughout the Mediterranean basin, east to Greece and west to Spain. Lemons are currently produced in all tropical and temperate areas of the planet.

The Lemon reached Peruvian soil with the Spanish, but with the passage of time its nature changed and it acquired a Peruvian identity. We know this lemon, small, intense and fragrant, as subtle lemon, which is grown in the coastal strip of Peru. The variety called Tahiti is also planted, which is produced in the central jungle of the country.



Varieties:

- **SUBTLE LEMON (CITRUS AURANTIFOLIA)**

Called acidic or Galician lime (*Citrus aurantifolia*, also called subtle lemon, Ceutí lemon, Mexican lemon, Peruvian lemon or Pica lemon) is a fruit tree of the **g**of the *Citrus* genus. It comes from Southeast Asia; its etymology derives from the Persian *Limu*. It is a tree of about 5m in height, and a trunk that is usually crooked, it branches out densely from very low.

The branches have short and hard spines that arise from the axils, with ovate leaves of between 2.5 to 9 cm of pale green color similar to those of the orange, hence its Latin name *aurantifolia*. The flowers have a great aroma, they are yellowish-white in color, with a fine purple line on the edges, they arise from the axils of the branches, in clusters of up to 7 florets.

There are other cultivable varieties of *Citrus aurantifolia* with varying degrees of acidity and colors ranging from green to yellow, which is why in some countries they are called lemon.

- **TAHITI LEMON (CITRUS LATÍ FOLIA)**

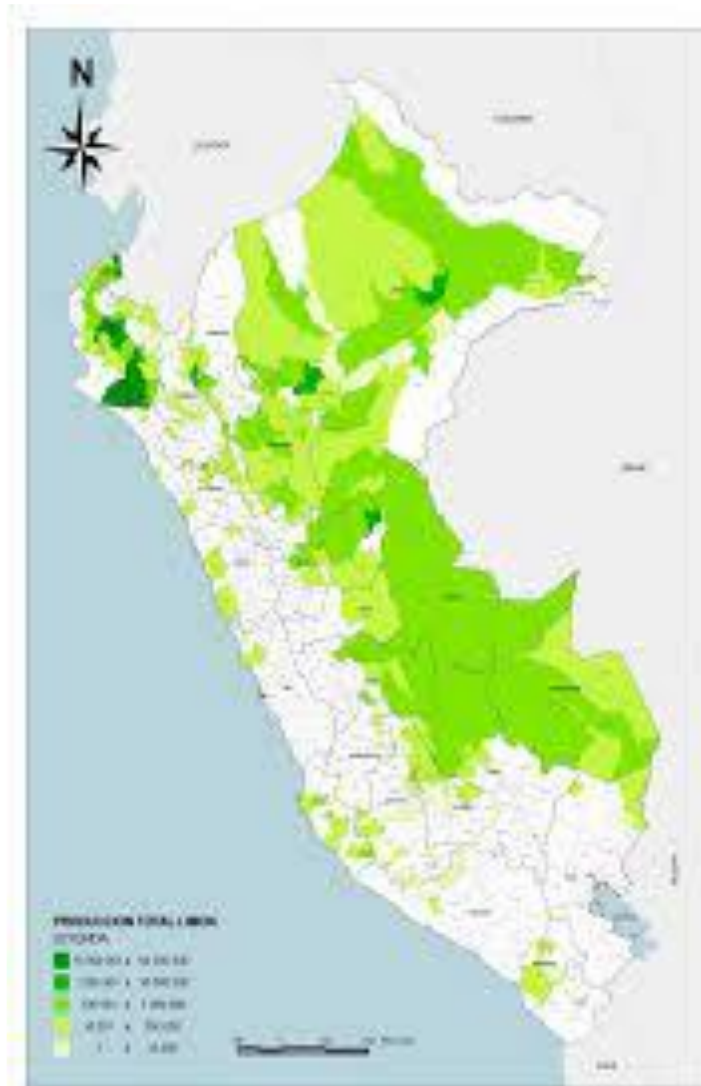
It belongs to the *Rutáceas* family, *Aurantioideae* subfamily, *Citrae* tribe, *Agrios* group, *Citrus* genus. Its leaves are characterized by being unifoliate, whole, petiolate, alternate and separated by internodes at axillary angles. Between the base of the leaf blade and the distal portion of the petiole a joint is observed that clearly separates both structures, thus factors such as temperature, irradiation and water availability are

correlated with certain anatomical characteristics of the wood and the foliar structure of this fruit.

Characteristics and percentage composition of the fruit: The average weight in the subtle lemon fluctuates between 25.65 gr to 33.48 gr, depending on its state of ripeness. Its diameter is between 3.68 cm to 3.98 cm. The peel percentage of the subtle lemon is in the range of 18.91% to 19.98%. The subtle lemon juice percentage is between 37.07% to 49.01%. The percentage of seed is between 1.65% to 1.81%.

On the other hand, in the Tahiti lemon its average weight ranges between 70 and 90 g, but fruits of more than 100 g can be obtained, if they are left on the tree for longer than adequate time. They are usually seedless. Ripe fruits of Tahiti lemon have a juice content of 40% to 60%, the juice has an acid value of 5 to 6%, the amount of soluble solids from 7 to 8% and an ascorbic acid content of 20 to 40 mg per 100 ml. of juice. The rind of the fruit is 2 to 3 mm thick, the fruit usually has a pap or nipple at the end of the style, varying considerably in size and shape. The fruit continues to grow on the tree until it reaches a length of 9 cm and a diameter of 7 cm.

Production areas: The areas where the highest harvests were obtained were the regions of Piura and Lambayeque. According to the sowing and harvesting calendar, as the lemon is a permanent crop, it is harvested all year round, but between January and June 60.4% of the national production accumulates. The regions of Tumbes, Loreto, Ucayali, Madre de Dios, Arequipa and Moquegua also participate.



Nutritional value:The pulp contains organic acids, mainly citric acid and, to a lesser extent, malic (which are considered responsible for the acidic taste of this food), acetic and formic. Some studies have indicated that these acids enhance the action of vitamin C and have a remarkable antiseptic effect. There are also phenolic compounds such as caffeic and ferulic acids, which are powerful antioxidants and inhibit carcinogenic activity.

The main component of lemon is water, so its caloric value is low, 44 kcal / 100 g.

Subtle Lemon

Nutritional composition per 100 g

Componente	Contenido
Protein	0.9 g
Carbohydrates	8.7 g
Calories	44 g
Citric acid	7.5 g
Malic acid	0.6 g
Saccharose	0.5 g
Invert sugar	0.8 g
Calcium citrate	1 g
Iron	Vestigios
Vitamin A	0 U.I
Vitamin B1	0.4 g
Vitamin B2	Trazas
Vitamin B6	0.1 mg
Vitamin C	45 mg

Tahiti Lemon

Nutritional composition per 100 g

Componente	Contenido
Water	91.80%
Protein	0.30%
Carbohydrates	6.30%
Fiber	1.00%
Fats	0.30%
Calcium	1.3 mgr
Phosphorus	1.4 mgr
Iron	0.40%
Vitamin C	25 mgr
Calories	26 Kcal
Ashes	0.30%

Properties: Among the main ones we can mention:

- It is a great antioxidant.
- Improves iron absorption
- Synthesize collagen
- Reduces the possibility of reducing infections
- It has a low caloric value (approximately 22Kcal / 100g).
- It prevents diseases of oxidative origin (ischemia, type 2 diabetes).
- It is a great inhibitor of neuro inflammations.
- It is a diuretic.
- It is antibacterial.
- Adjuvant in the treatment of gastrointestinal infections.
- Relieves respiratory diseases.
- Helps strengthen defenses.
- Tones the skin.

Harvest time: Lemons are a permanent crop, which is sown and harvested throughout the year, but between the months of January and June, 60% of the national production accumulates.

Exportable offer : In 2021, citrus exports would reach 230 thousand tons, which would represent an increase of 6% compared to the 217,450 tons shipped in 2020.

In 2020, total citrus exports reached 268,384 tons.

In the first quarter of 2021, our country exported 7,263,967 kilos of lemons (Tahiti and Sutil), showing an increase of 33.5% compared to the 5,439,053 kilos shipped in the same period of the previous year, the total volume shipped in the first three months of this year, 5,878,559 kilos (80.9% of the total) corresponds to Tahiti lemon and 1,385,408 kilos (19.1%) is Subtle lemon.

From January to March 2021, Tahiti lemon shipments (5,878,559 kilos) grew 42.5% compared to the 4,125,880 kilos exported in the same months of the previous year as follows: January 1,958,458 kilos, February 1,799,408 kilos, March 2,120,693 kilos; While in 2020 its development was: January 1,323,341 kilos, February 1,410,205 kilos, March 1,392,334 kilos.

As for the Sutil lemon, he said that, in the first quarter of 2021, shipments reached 1,385,408 kilos, registering an increase of 5.5% versus the 1,313,173 kilos exported in the same period of the previous year.

In 2021 the shipments were as follows: January 648,880 kilos, February 449,966 kilos, March 286,562 kilos; when in 2020 it was: January 494,496 kilos, February 418,833 kilos and March 399,844 kilos.

Presentations and uses :The main presentation is fresh lemon, derivative products such as oil, juices and dehydrated peel are also offered for industrial and food uses.

The uses of the product are in the food industries (mostly gastronomy and pastry) and in the manufacture of essences.