

TAHITIAN VANILLA - *Vānira nō Tahiti*

Originally from Mexico

A plant of the orchid family originally from Central America, vanilla was imported into Spain at the beginning of the 16th century by the Conquistadors. Immediately embraced for the beauty of its flower, it was long the cause of much desperation on the part of the botanists of that era. Deprived of its fertilising agent, the Meliponas bee, a species endemic to Mexico, it would bear no pods! It was not until 1841 that a young slave from Reunion island would develop an artificial insemination technique, which would enable the plant to self-fertilise and finally produce these famous pods.

Introduction into Polynesia

Vanilla plants are not a species endemic to the Polynesian flora. They were first introduced in 1848 by a French admiral. Adapting to their new environment, however, the imported varieties took on unique characteristics giving rise to a new sub-species – vanilla tahitensis, as is its scientific name.

These plants were initially much sought after as flowers for Polynesian gardens. It was not until 1880 that the cultivation of their pods began on a large scale, peaking in the 1950s. At this time, Tahitian vanilla was, after copra, the second largest export from what was then called the French Establishments in Oceania.

A very unique variety

Of the three vanilla varieties, from Madagascar, Reunion and Tahiti, the latter is the richest in aroma. Scientifically, vanilla tahitensis, was long considered to be a cross between *Vanilla planifolia* and *Vanilla pompona*. In reality, it is rather a sub-species of *Vanilla planifolia*. Contrary to the *Vanilla fragrans* species, vanilla tahitensis is said to be “indehiscent” when growing in the Polynesian climate, that is to say, it does not open at maturity and so remains fleshy. This means that it may be harvested at maturity, at the height of its flavour and aroma. So-called “ordinary” vanilla is said to be “dehiscent”, that is to say, it splits at maturity. This means that it must therefore be harvested before maturity, thus depriving it of a certain quality and intensity of aroma.

An aroma unique in the world

Unlike other varieties, Tahitian vanilla contains large quantities of aniseed-flavoured compounds that are characteristic of its aroma, including anise alcohol and anise acid. Para-hydroxybenzoic acid has also been found in a large proportion of the plant population. Interestingly, Vanillin occurs in much lesser quantities. The presence of anisic aldehyde and methyl anisate have similarly been noted, and found to be powerful flavouring agents. It is thus the combination of these compounds together, which has contributed to the potency and originality of the aromatic bouquet for which Tahitian vanilla is so famous.

“A luxury vanilla”

Due to its qualities and rarity (representing less than 1% of total vanilla production worldwide), Tahitian vanilla is universally considered to be a “luxury vanilla” and rare spice. In cosmetics, its pods are widely used in numerous products due to their richness in

polyphenols with anti-radical and cellular protective action. They are also used in the composition of numerous perfumery products.

However, it is in the field of gastronomy, gourmet food and pastry-making that the plant is particularly sought-after, with many top Parisian pastry chefs personally travelling to Tahiti in order to source their supply of this spice.

Cultivation

The most common variety, *vanilla tahitensis*, is cultivated almost exclusively in the Leeward Islands. As for *Vanilla fragrans*, this may be found in the Austral Islands. The vanilla plantations are generally concentrated in the Leeward Islands and particularly on the islands of Taha'a, Ra'iātea and Huahine. They are also numerous in the Marquesas Islands on the islands of Tahiti and Mo'orea. Without question, the top location for its cultivation however remains the island of Taha'a, also called "vanilla island".

The vanilla plant is notably a shade plant that is happiest in woodland environments. It thrives in valleys; humid areas that are sheltered from the wind and which benefit from very modest sunshine.

In order to grow and flourish, the vanilla plant requires a support to which it may attach itself as well as a natural substrate so that its roots may develop.

As a type of climbing orchid with thick, long and fleshy leaves, the vanilla plant will therefore wrap itself around its support, often a shrub called a *pīti'i* or a tree like the bancoulier (Candlenut) or *ti'a'iri*.

In recent years a process called "under-shade" cultivation has been used for a more intensive cultivation. This essentially consists of attaching vanilla vine cuttings to supports made of cement under the cover of a shade net and protected all around by an anti-insect net.

"The marriage" of Tahitian vanilla

Fertilisation of Tahitian vanilla must be carried out manually. This activity of artificial insemination known as "marriage" is carried out during the flowering period from July to October. Using a stylus, this consists of tearing the membrane that separates the male and female organs of the flower, the pollen and the stigma, so that they come into contact. As such, it is an activity which naturally requires a very high level of precision. As the flowers only have a life span of a few hours, they must be married immediately after opening, most often between 6.00am and 2.00pm. The fruits borne by this fertilisation are pods, approximately 15 to 20cm in length.

A lengthy preparation process

Nine to 10 months after their "marriage", the pods become a pale green, then changing to yellow and finally brown at their tips. This serves as a signal for the manual harvesting to begin from March to July. Once harvested, the pods are then transported to the vanilla preparers for whom a lengthy task still lies ahead. They first leave the pods in darkness for about 5 days until they have become a uniform brown. The drying then begins. Each day, the pods are exposed to the sun for a few hours. They are then left to dry in a dry and well-ventilated space. The aim is for the pods to lose about three quarters of their water without becoming desiccated. This is a delicate and important activity as it is in this stage that their aromas will develop. At the end of a minimum of three months, even seven for the largest pods, the Tahitian vanilla may finally be put out onto the market.

Key figures

Approximately 1,400 vanilla producers

About a dozen vanilla preparers

Approximately 200 hectares of vanilla plantations

Between 10 and 12 tons of vanilla prepared, according to the year

Between 9 and 11 tons of vanilla prepared and exported every year

Main countries to which it is exported: United States/France/Germany/Japan

Sales price per kilo of prepared vanilla:

Between 20,000 CFP Francs (160 Euros) to 30,000 CFP Francs (259 Euros) according to the year.

Main production sites : Taha'a, Ra'iātea and Huahine

Timing

Flowering and “Marriage” of vanilla: from July to October

Harvesting of mature vanilla: from March to July/August