C/2023/1313

1.12.2023

Publication of an application for registration of a name pursuant to Article 50(2)(a) of Regulation (EU) No 1151/2012 of the European Parliament and of the Council on quality schemes for agricultural products and foodstuffs

(C/2023/1313)

This publication confers the right to oppose the application pursuant to Article 51 of Regulation (EU) No 1151/2012 of the European Parliament and of the Council [1] within three months from the date of this publication.

SINGLE DOCUMENT

'Mel-de-Cana da Madeira'

EU No: PDO-PT-02853 – 24.6.2022

PDO (X) PGI ( )

1. **Name(s) [of PDO or PGI]**

'Mel-de-Cana da Madeira'

2. **Member State or Third Country**

Portugal

3. **Description of the agricultural product or foodstuff**

3.1. *Type of product*

Class 1.8. Other products listed in Annex I to the Treaty (spices etc.)

3.2. *Description of the product to which the name in (1) applies*

'Mel-de-Cana da Madeira' is a syrup made by purifying, clarifying and concentrating the natural, unfermented juice of traditional varieties of sugarcane (*Saccharum officinarum* L.) grown on the island of Madeira. In accordance with the traditional Madeiran production method, it is obtained without the addition of any acidity regulators, sugar inversion promoters or any natural or artificial sweeteners or preservatives.

Physico-chemical characteristics:

natural acidity, with a pH of between 4,3 and 5,0,

an ash content of between 3,5 % and 5,5 %,

a high total soluble sugar content (between 50 % and 75 %), with:

a sucrose content of between 20 % and 45 %, and

a reducing sugar (glucose and fructose) content that is always higher that 17 % and may exceed 30 %.

Organoleptic characteristics:

A dark-brown colour that ranges from almost black to slightly golden or amber, with orangey or golden streaks when spread thinly, it is opaque and fairly uniform or more glossy and slightly translucent, and it may be quite clear or contain tiny particles or bubbles.

A uniform, creamy, light and velvety texture, liquefying rapidly in the mouth, with medium to high viscosity, which makes it thick, although it is quite fluid and has a light, caramelly consistency, possibly containing tiny particles.

[1] OJ L 343, 14.12.2012, p. 1.

A rather characteristic sweet, caramelly aroma and taste, with little to slight astringency, a smooth bitterness and a pleasantly tart finish – giving it balance – vegetal (freshly milled cane), fruity (sultanas) or metallic notes, or hints of vanilla, spices or roasted notes. Overall it is harmonious, fresh and balanced, with medium to high intensity and persistence.

This variability in its physico-chemical and organoleptic characteristics is due to the characteristics of the sugarcane produced on the island and processed each sugar season and, above all, to the processing conditions in the sugarcane mills.

3.3. *Feed (for products of animal origin only) and raw materials (for processed products only)*

The only raw material is sugarcane of the traditional varieties grown on the island: 'Amarela' / 'Branca', 'Canica', 'Rajada', 'Roxa' and 'Violeta'. They are derived from the diverse types of sugarcane brought to the island, primarily during the 19th and early 20th centuries, from Cape Verde, French Guyana, the Antilles, Mauritius, South Africa, Angola, Australia, Java and Louisiana (USA), and adapted and thrived thanks to the environmental conditions and the cultivation practices used by the Madeiran farmers.

A great contributing factor was the local practice of preserving and sharing the genetic material through the use of 'ratoon' fields, in which, after the sugarcane stalks have been harvested, the 'mother rhizomes' with the best characteristics are either left in the ground to produce new shoots (*afilhamentos*) that will grow to form the new harvest or are dug up to be transplanted or exchanged with other producers to establish new plantations.

There is considerable expertise in the different stages of growing sugarcane:

— preparing the soil for new plantations by incorporating brushwood and composted organic matter or organic amendments and fertiliser suited to the crop and soil conditions;

— tending the 'ratoon' fields, selecting the best shoots to maintain the 'mother rhizome' and ensure future yields;

— monitoring the growing cycle;

— irrigating (by flooding or spraying), where climatic conditions make this necessary; and

— preparing the stalks (cutting the leaves and the *sabugo* – tip of the sugarcane) so that they are easier to harvest and transport.

All these operations, including harvesting, are carried out by hand, plant by plant. The workers carry the stalks on their backs from the terraces to the vehicles that take them to the sugarcane mills.

3.4. *Specific steps in production that must take place in the identified geographical area*

The growing of the sugarcane and all the stages of making it into 'Mel-de-Cana da Madeira' take place on the island of Madeira. This involves the following operations:

— extraction and purification or cleaning of the *guarapa* (fresh sugarcane juice) by decanting or filtering it;

— thermal clarification of the *guarapa*, without adding any chemicals, with gradual heating for between 0,5 and 3 hours up to a temperature of between 60 °C and 80 °C, which promotes inversion of the sucrose and agglutination of impurities, forming a froth that is skimmed off;

— purification of the clarified juice by filtering and/or decanting it to eliminate the *borras*, impurities that have not been removed in the froth;

— evaporation of the clarified juice by gradually heating it until it exceeds its boiling point (between 100 °C and 108 °C) and maintaining this high temperature for as long as is necessary (between 10 and 24 hours) to concentrate and purify the constituents, release the water vapour and caramelise the soluble sugars until a syrup with the density of the final product (38° to 40° Baumé) is obtained;

— stabilisation and storage of the syrup in storage tanks until it is packaged.

3.5. *Specific rules concerning slicing, grating, packaging, etc. of the product the registered name refers to*

—

3.6. *Specific rules concerning labelling of the product the registered name refers to*

—

4. **Concise definition of the geographical area**

The island of Madeira.

5. **Link with the geographical area**

Located in the subtropical region of the North Atlantic, the island of Madeira has uneven terrain, with a central mountain range running east to west, perpendicular to the prevailing north-easterly winds, and high mountain ranges (above 1 200 m) that promote orographic precipitation and the formation of permanent mists and fogs, making the highlands and the north side colder and more humid, with abundant water resources, while the south side is more exposed and gets more sunshine (more than 2 000 hours/year). Madeira's steep slopes, deep valleys and precipitous ravines mean that shady areas alternate with sunny areas, creating a wide range of microclimates at different altitudes on both sides.

It has a temperate Mediterranean climate, with higher rainfall in winter and almost no rainfall in summer, mild annual average temperatures (between 10 °C and 22 °C in August, the hottest month, and between −3 °C and 18 °C in February, the coldest month) and only small temperature fluctuations, due to the moderating effect of the sea. The high levels of rainfall and humidity in the highlands, mainly on the north side, enabled the laurel forest to develop and survive to this day. It is rich in dominant native species, which contribute to the high levels of fog drip that feed the island's springs and water sources.

Provided that its water needs (between 1 500 and 2 500 mm/year) are met, the average daily temperature during germination, sprouting and growth of the sugarcane should be between 22 °C and 30 °C, as is normal between April and November on the south side of the island and between May and October on the north side, while the minimum temperature during ripening (accumulation of sucrose in the stalks) should not fall below 15 °C, as is the case on the south side between December and March and on the north side between January and April or even the first half of May.

Sugarcane thrived in these conditions and is still grown mainly on the island's south coast, up to an altitude of 400 m, where chromic cambisols predominate. It is also grown, although less widely, on the haplic phaeozem soils in the sunnier areas of the south-west, up to an altitude of 600 m, and on the north and north-east coast, up to an altitude of 150–200 m. These are medium to deep soils, with a fine texture and a high percentage of silt, an organic matter content of less than 7 %, a medium to high degree of base saturation and a moderately acid to neutral pH (between 5,4 and 7,3), and with low levels of phosphorus and potassium and high levels of magnesium and calcium, which is why organic amendments and/or suitable fertilisers are needed.

Sugarcane was introduced to the island by order of Prince Henry the Navigator, who, when the island was first settled (1425), ordered 'cuttings' to be brought from Sicily, along with master sugar-makers to make sugar, which was highly prized at the European courts of the time.

The Madeiran settlers soon developed good practices for propagating and cultivating sugarcane on the 'new land' that had been cleared by burning areas in the high, forested parts of the island and building terraces (*poios*) on the slopes. These terraces follow the contour lines, are supported by stone walls made of dressed basalt and are irrigated by a network of irrigation channels (*levadas*) which bring water from the streams and springs. Thus, sugarcane cultivation thrived and yields were high.

Conditions on the island also made it possible to improve on the medieval technology for extracting the juice, thereby increasing the rate of extraction (to about 60 %), and to refine the conditions for concentrating and crystallising the sugar, thereby increasing efficiency and yield.

The sugarcane mills also produced syrups, as described in the memoirs of Giulio Landi (an Italian nobleman who visited the island from 1526 to 1530): 'The froth that forms when the sugar is boiled, … which is kept, is like honey, although it is a bit darker and more liquid, and it is called *mel* (honey) by the locals …' Other records state that some families promoted the boiling of sugarcane juice to produce a homemade syrup for their own consumption and for making sweets and preserves (candied fruit and compotes), which were in great demand on the island for domestic consumption and for export.

Those syrups were much in demand as part of the diet of the crews who docked in Funchal on their Atlantic voyages, until, in the mid-16th century, exports were banned by royal decree. This contributed to the syrups starting to be used, above all in the convents, as the main ingredient in the various cakes and sweetmeats typically prepared for Advent, Christmas and Carnival. Between the 17th and 19th centuries, despite the decline in sugarcane growing and the closure of the main sugarcane mills as a result of fierce competition from sugar from other parts of the world at the European courts, domestic production of sugarcane syrup continued, ensuring that small plantations were maintained on the island and safeguarding the know-how linked to Madeira's tradition of preserves and convent sweets.

Since the beginning of the 19th century, with the introduction of new types of cultivated sugarcane and the resurgence of large steam-powered sugarcane mills, syrups made by concentrating sugarcane juice started to be produced industrially at the same time as, but on a smaller scale than, the other sugarcane derivatives that were successively produced on the island, namely sugar, alcohol (to fortify Madeira wine) and, more recently, 'Rum da Madeira' (a spirit drink whose name is registered as a geographical indication).

The historical records show that, on Madeira, the sugarcane syrups were always known as *mel* or *mel da Madeira*, names that continued to be used for almost six centuries, until EU legislation defined the term *mel* so that it could only be used for the natural sweet substance produced by bees (*Apis mellifera*). The Madeiran producers therefore adopted the name 'Mel-de-Cana da Madeira' to denote this traditional product that is very important to the economy and of great significance in the islanders' collective memory and identity.

The sugarcane varieties brought to the island from different parts of the world adapted to the soil and climatic conditions on the irrigated terraces that were constructed on the lower, sunnier parts of the island, producing the traditional, hardy varieties. The composition of their juice is directly linked to the environmental conditions on the plantations and the cultivation practices (in particular as regards propagation, fertiliser application and irrigation) which have always been used by the Madeiran farmers. The terraces and irrigation channels still mark the island's rural and natural landscape today.

In areas with mild temperatures, plentiful sunshine and the availability of rain or irrigation water, the canes ripen well due to the high rates of photosynthesis, giving the juice a high sucrose content. The high ash content is the result of constant incorporation of organic matter and deep fertilising to compensate for the fact that the soils are mineral-rich but poor in phosphorus and potassium.

The island's sugarcane mills all use the traditional method of producing 'Mel-de-Cana da Madeira', from those founded in 1883 in Funchal and 1901 in Calheta to the one built in 2006, also in Calheta. They use centuries-old techniques and modern equipment to carry out all the stages in the production process, thereby ensuring that all the constituents of the sugarcane juice are preserved in the product and are concentrated and enhanced.

In addition to the composition of the juice, the characteristics of the equipment used in the sugarcane mills to extract the whole sugarcane juice, the practice of purifying it by decantation and/or filtration and, chiefly, the properties of the *tachas* or tanks used for thermal clarification and concentration of the juice to obtain syrup are all factors that determine the thick, fluid density of the syrup, its more or less clean texture and, above all, its characteristic caramelly aroma and taste, with vegetal, fruity or metallic notes or hints of spices or roasted flavour, which are more or less pronounced depending on the temperature reached and the duration of the processes.

The moderately acidic soil pH means that the sugarcane juice is naturally acidic. During thermal clarification, that acidity promotes inversion of the sucrose, resulting in a high reducing sugar content, which makes the final product more stable, as fructose is more soluble and glucose is more difficult to crystallise. The process of concentrating the clarified juice at high temperatures in an acidic environment also contributes to its intense dark-brown colour, its greater sweetening capacity due to its rich fructose content, and its characteristic sweet, caramelly aroma and taste with a smooth bitterness and pleasant tartness.

The specific characteristics of 'Mel-de-Cana da Madeira' are much appreciated, which is why it is often used to spread on bread, to sweeten the typical Madeiran delicacies (*malassadas*, *sonhos* and *rabanadas*) and to enrich local dishes. It is also an essential ingredient in the traditional Madeiran sweetmeats and the local modern cakes and pastries. Along with 'Rum da Madeira' (GI), it enjoys an excellent reputation and great renown as a product that is heir to the important sugar industry that prospered on the island for centuries, shaping its history and landscape and the Madeiran culture and culinary traditions.

Reference to publication of the specification

https://tradicional.dgadr.gov.pt/images/prod_imagens/mel/docs/CE_MelCanaMadeira_DOP_240423.pdf