

OTHER ACTS

EUROPEAN COMMISSION

Publication of an application 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

(2013/C 167/08)

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⁾.

SINGLE DOCUMENT

COUNCIL REGULATION (EC) No 510/2006**on the protection of geographical indications and designations of origin for agricultural products and foodstuffs ⁽²⁾****‘TOMATAKI ΣΑΝΤΟΠΙΝΗΣ’ (TOMATAKI SANTORINIS)****EC No: EL-PDO-0005-0888-26.08.2011****PGI () PDO (X)****1. Name**

‘Tomataki Santorinis’ (Tomataki Santorinis)

2. Member State or third country

Greece

3. Description of the agricultural product or foodstuff**3.1. Type of product**

Class 1.6 — Fruit, vegetables and cereals, fresh or processed

3.2. Description of product to which the name in point 1 applies

‘Tomataki Santorinis’ is defined as the fresh fruit of a local ecotype of *Lycopersicon esculentum* Mill., of the *Solanaceae* family, which is classified as small tomato variety, with a development cycle of an average of 80 to 90 days. ‘Tomataki Santorinis’ has a round, slightly flattened shape (polar diameter divided by equatorial diameter between 0,65 and 0,85) and a weight (in grams) ranging from 15 (minimum) to 27 (maximum). The fruit has slight to pronounced flutes, which are particularly marked in the fruit at the base of the plant (close to the roots). ‘Tomataki Santorinis’ has a deep red colour and firm, not particularly moist flesh with a high seed content. The percentage of soluble solids ranges from 7 to 10 °Brix, while the concentration of soluble solids is lower in relation to total solids and ranges from 73 % to 87 % (13-27 % solid residue). In addition, it has higher levels of ascorbic acid (ranging from 14 mg to 18 mg per 100 g fresh weight), total soluble phenols (54-57 mg/100 g f.w.)

⁽¹⁾ OJ L 343, 14.12.2012, p. 1.

⁽²⁾ OJ L 93, 31.3.2006, p. 12. Replaced by Regulation (EU) No 1151/2012.

and lycopene (3,8-7,5 mg/100 g f.w.). At the same time, the fresh 'Tomataki Santorinis' is characterised by high acidity (pH = 4-4,5) which, in combination with the high concentration of carbohydrates, gives it a sweet, strongly acidic taste.

3.3. *Raw materials (for processed products only)*

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3.4. *Feed (for products of animal origin only)*

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3.5. *Specific steps in production that must take place in the defined geographical area*

All steps in the production, treatment and processing of products marketed under the name 'Tomataki Santorinis' must be carried out within the defined geographical production area.

3.6. *Specific rules concerning slicing, grating, packaging, etc.*

Restricting packaging operations to the defined geographical area is considered necessary to ensure the quality of the product marketed under the name 'Tomataki Santorinis' and to ensure effective control of the origin of the final product.

More specifically, packaging operations need to be restricted to the production area because of the particularly high risk of a deterioration in the quality of such a fragile product during the necessary bulk transport by sea, with the serious possibility of the tomatoes absorbing moisture and becoming contaminated with post-harvest pests and diseases. The aim is also to reduce fraud. The small yield per stremma (1 000 m²) (around 500 kilos per stremma compared with around 10 tonnes per stremma for outdoor tomatoes grown inland) means that 'Tomataki Santorinis' fetches a substantially higher price, which is a major incentive to fraud. This will protect the outstanding reputation of the product marketed under the protected name.

3.7. *Specific rules concerning labelling*

The packaging bears the product code in accordance with the traceability system.

4. Concise definition of the geographical area

The geographical area where 'Tomataki Santorinis' is produced comprises the islands of Thira (Santorini), Thirasia, Palea Kameni, Nea Kameni, Aspro (Aspronisi), Christiani and Askania in the Prefecture of the Cyclades in the South Aegean Region of the Hellenic Republic.

5. Link with the geographical area

5.1. *Specificity of the geographical area*

These islands all have volcanic soil and a very specific microclimate, with particularly strong winds, long hours of sunshine throughout the year and very dry conditions (low annual rainfall). More specifically:

(a) climate: the following specific climatic factors are considered crucial to the quality of the product:

1. annual average relative humidity of 71 %;
2. maximum annual rainfall of 370 mm;
3. northerly winds that prevail throughout the year;
4. an annual average temperature of 17,5 °C;

5. 202 days of sunshine a year; and
 6. virtually no frost;
- (b) soil: the parent material of the volcanic soil which makes up nearly all of Santorini consists of tertiary deposits of Thira soil, pumice and lava. This soil is classified as deep, with moderate to no erosion gullies and slight gradients. Generally speaking, this soil has a fine structure, does not contain nitrogen (N), the basic inorganic nutrient, and is particularly poor in organic matter. In addition, the soil contains sodium (Na), which creates conditions of water stress, and has the ability to absorb moisture from the atmosphere and transfer it gradually to the plants during the day (pumice is well known for its water-retention capacity). Thus, the plants are under conditions of water stress, and this, together with the alkaline soil, gives the product special characteristics. Lastly, land water resources are minimal to non-existent;
- (c) human factors: there are three specific and very important procedures in the production process which illustrate the human contribution to the traditional cultivation method:
1. the collection/selection of the seed to be used for the following crop (seed produced on the holding);
 2. cultivation methods have been adapted to the area's particular soil and climate conditions (dry conditions, long hours of sunshine and very strong winds). More specifically, over the years growers have selected an early landrace for dry farming, which, to a great extent, overcomes the problem of the strong northerly winds and the lack of water resources, allowing the plant to develop fully, particularly on soils at sea level, during March, April and May. During these months, Santorini is most sheltered from the wind and receives a little rainfall, which provides a valuable source of water;
 3. a specific technical adaptation in the cultivation method is the direct sowing of the seed into Thiran soil. This procedure ensures the preservation of the deep taproot, unlike with conventional tomato cultivation, which involves transplanting the plants and cutting the root.

5.2. Specificity of the product

The specific characteristics of the product are the result of the plant material, together with the particular soil and climate conditions on Santorini and the surrounding islands and the traditional cultivation methods used by the growers.

- (a) 'Tomataki Santorinis' is a local landrace of the species *Lycopersicon esculentum* Mill., with a historical origin, a distinct identity and genetic variation and is specifically adapted to the dry conditions and the limey, alkaline soils of Santorini. It is produced on a commercial scale in the defined geographical area only. It is a local crop grown by the producers themselves on Santorini, which is the product of the traditional low-input cultivation system. These characteristics have been forged and spread over time by the procedure of collecting-selecting seed for the next crop. The seed is therefore very resistant to both biotic and abiotic stress, with the result that it maintains a highly reliable satisfactory yield under the dry farming system used on Santorini.
- (b) As stated in the product description, one of the specific characteristics of 'Tomataki Santorinis' is the composition of soluble solids, which contribute positively to both its nutritional qualities and its taste. It has a lower concentration of soluble solids in relation to total solids, ranging from 73 % to 87 % (13-27 % solid residue), whereas classic tomato varieties have 95-98 % (2-5 % solid residue). This means that it has more solid residue. Experiments comparing these parameters and those of the large 'Gs 67' variety of tomato, carried out under equivalent conventional growing conditions, showed that 'Tomataki Santorinis' also has higher values for ascorbic acid content, total soluble phenols and lycopene, which are part of the soluble solids. Specifically, per

100 g fresh weight the values for the above constituents in 'Tomataki Santorinis' are 14-18 mg, 54-57 mg and 3,8-7,5 mg respectively, whereas in the classic 'Gs 67' tomato variety they are 8-12 mg, 30-35 mg and 1,8-7 mg respectively. Similar studies on its taste characteristics showed that 'Tomataki Santorinis' has a higher percentage of soluble solids and higher values for titratable acidity. These differences are due to the ability of this particular ecotype of the plant to recycle ascorbic acid within the fruit.

5.3. Causal link between the geographical area and the quality or characteristics of the product (for PDO) or a specific quality, the reputation or other characteristic of the product (for PGI)

The particular physical, chemical and organoleptic characteristics of tomatoes marketed under the name 'Tomataki Santorinis' are the result of the combined effects of the environment, local know-how and the potential of the genetic resources.

Thus, the principal quality characteristics that link 'Tomataki Santorinis' with the area are:

- (a) the particular genetic material used, which has now taken on the characteristics of a local variety, as a result of a long period of adaptation to the particular conditions pertaining in the area and to the traditional method of collecting-selecting seed for sowing the following year. The adaptation of the plant to the environment of Santorini resulted in the formation of certain specific characteristics that have made 'Tomataki Santorinis' highly prized on the market, as a high-quality product. These characteristics are its distinct identity, genetic variation and specific adaptation to the dry conditions and the limey, alkaline soil of Santorini and are linked to the traditional cultivation system. Recent studies have shown that: (a) research into the phylogenetic links between two picks of 'Tomataki Santorinis' and seven domestic varieties of tomato, studying 38 properties of the plant, showed a clear genetic difference (genetic distance) between authentic 'Tomataki Santorinis' and all the other varieties, something that gives the tomato a distinctive identity (uniqueness); and (b) the parallel evaluation of selected genotypes on Santorini (using the traditional low-input system) and on holdings belonging to the National Agricultural Research Foundation in Thessaloniki (using a conventional high-input cultivation system) showed a strong environmental influence on the production characteristics, and a comparison of the categories of products produced showed the product and its constituents only developed fully in the environment of Santorini, proof that selection *in situ* is more reliable.

In addition, it should be noted that the strongly alkaline soil produces higher levels of sugar in the ripe tomato.

It can therefore be concluded that this local ecotype has acquired a high agricultural value, since it shows outstanding resistance to aridity and a range of diseases such as black mould, powdery mildew, fusariosis and verticillium, while it has also adapted well to the island's volcanic soils and their limey, alkaline composition. Average yields on Santorini's dry soils hover around 500 kg per stremma and only in exceptional cases do they reach 1 000 kg;

- (b) the physical and chemical properties of the fruit, which include a particularly high proportion of sugars and total solids, which is reflected in the product's organoleptic characteristics. This is the result of, on the one hand, the presence of sodium, which creates conditions of water stress and, on the other, the fact that the particular soils of Santorini absorb moisture from the atmosphere (because of the caldera during the night) and transfer it gradually to the plants during the day (pumice is well known for its water-retention capacity). In addition, fertiliser is not applied, that is to say the plant is under conditions of water stress, and this, together with the highly alkaline soil, is the major reason for the increased proportion of sugars and total solids and more generally the constituents that provide taste and nutritional value;
- (c) reputation — historical data. The earliest reliable evidence of tomato cultivation in Santorini dates from the end of the 19th century and records it as starting in the 1870s. The first official record of tomato growing in Santorini is contained in the first systematic report on the flora and agricultural production of Santorini drawn up shortly afterwards (1899). However, the report gives

no economic data about the crop, proof that it made only a small contribution to the economy and that the product was mainly used to cover the nutritional needs of the local population.

Tomato growing was introduced systematically into Santorini when sales of Santorini's wines in Russia collapsed following the October Revolution, with the result that income from wine-growing shrank and there arose the need to develop new, more profitable crops. Thus, during 1919 and 1920, the local newspaper, *Santorini*, carried reports that tomato-growing was spreading at the expense of wine-growing, while in 1922, the income from tomato-growing was five times that from wine-growing. Papamanolis describes how tomatoes were grown in all the areas where there was pumice, reporting that total production of tomato purée was around 1 300 tonnes in 1928. Around that same period (1928-29), Santorini was visited by Professor Durazzo-Morosini, who recorded tomato-growing in the districts of Pírgos and Thirasia and a tomato cannery in Mesa Gonia in Messaria. In 1933, Danezis wrote that the tomato industry was one of the two main sources of income in Santorini's agricultural sector. By then, tomatoes had been grown on Santorini for 50 years, sufficient time for the crop to adapt to the soil and climate conditions, for traditional, local know-how to develop and for the comparative advantages of the end-product to become known.

Today, the product has become established in the mind of the consumer as a product of exceptional quality, something that is confirmed by the huge number of references to it on the Internet, the conventions held and the range of recipes using 'Tomataki Santorinis' as the principal ingredient.

In conclusion, it should be noted that the principal advantages of the tomatoes grown on Santorini are their higher sugar content and their higher level of total soluble solids. This specific quality characteristic is the result of the combined influence of the genetic material of the local variety, the cultivation method used and, naturally, Santorini's soil and climate conditions. 'Tomataki Santorinis' is a striking example of a highly-prized local product of excellent quality whose production involves the sustainable use of unique natural resources.

Publication reference of the specification

(Article 5(7) of Regulation (EC) No 510/2006 ⁽³⁾)

http://www.minagric.gr/images/stories/docs/agrotis/POP-PGE/tomataki_santorinis_221012.pdf

⁽³⁾ See footnote 2.