

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

(2023/C 160/11)

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 <sup>(1)</sup> within 3 months from the date of this publication.

PRODUCT SPECIFICATION OF A TRADITIONAL SPECIALITY GUARANTEED

**‘Twaróg wędzony’**

**EU No: TSG-PL-2779 – 29.6.2021**

**Member State or Third Country: Poland**

**1. Name of product**

‘Twaróg wędzony’

**2. Type of product [as in Annex XI]**

Class 1.3. Cheeses

**3. Grounds for registration**

**3.1. Whether the product**

- results from a mode of production, processing or composition corresponding to traditional practice for that product or foodstuff;
- is produced from raw materials or ingredients that are those traditionally used.

‘Twaróg wędzony’ (smoked curd cheese) is a special type of unripened cottage cheese with a traditional production history of about 40 years. The production method, appearance, colour and taste give ‘twaróg wędzony’ its traditional character.

The production method is based on traditional processes:

- hot smoking of the cheese with smoke from the burning of wood of selected deciduous trees;
- dry salting of the cheese or immersion of the cheese in brine.

Smoking plays a special role in the production process. This method is not commonly used for sour (curd) cheeses produced in Poland, as their relatively low dry matter content makes the smoking process more difficult. It is thanks to smoking and salting (salting curd cheeses is not a common practice in Poland) that the product acquires its specific taste and aroma.

**3.2. Whether the name**

- has been traditionally used to refer to the specific product;
- identifies the traditional character or specific character of the product.

The name ‘twaróg wędzony’ reflects the specificity of the product, which is the result of the smoking process.

<sup>(1)</sup> OJ L 343, 14.12.2012, p. 1.

#### 4. Description

- 4.1. Description of the product to which the name referred to in point 1 applies, including its main physical, chemical, microbiological or organoleptic characteristics showing the product's specific character (Article 7(2) of Commission Implementing Regulation (EU) No 668/2014 of 13 June 2014 laying down detailed rules for the application of Regulation (EU) No 1151/2012 of the European Parliament and of the Council on quality schemes for agricultural products and foodstuffs (OJ L 179, 19.6.2014), hereinafter 'Commission Implementing Regulation (EU) No 668/2014')

'Twaróg wędzony' (smoked curd cheese) is a special type of unripened cottage cheese in the shape of a small cylindrical block weighing 250 g to 300 g, or a parallelepiped block with a unit weight of 200 g to 300 g. It has the characteristic colour of products smoked naturally on wood of deciduous trees (ranging from creamy yellow to light brown). The cheese is made from cow's milk. In the case of spicy 'twaróg wędzony', aromatic particles (e.g. garlic salt, garlic, black pepper, pepper, fennel, nigella or cumin) are visible on the surface and the cross section of the cheese. The use-by date is 30 days from the date of production.

'Twaróg wędzony' has the following organoleptic and physico-chemical characteristics:

Characteristics	Requirements
Taste and smell	Slightly sour, slightly salty to salty, smoked flavour. Where a product contains additives (spices), distinct flavour of the spices used.
Texture and consistency	Uniform mass, a slightly crumbly or slightly hard mass is allowed; cracks between the grains are allowed.
Colour	White to cream-coloured cheese mass, colour of the surface ranging from creamy yellow to light brown, not uniform
Active acidity (pH)	Not less than 4,2
Salt content (%)	For a self-pressed product: Not more than 3,0 For a pressed product: Not more than 2,0
Water content (%)	Not more than 70 %
Fat content (%)	For a self-pressed product: 17,0 ± 3,0 For a pressed product: 9,0 ± 1,5

In addition to giving the product its smoky taste and smell, the smoking process extends its use-by date, which distinguishes it from other sour (curd) cheeses. This is the combined result of the increased temperature during the smoking process, the salting process and the properties of the smoke.

- 4.2. Description of the production method of the product to which the name under point 1 applies that the producers must follow including, where appropriate, the nature and characteristics of the raw materials or ingredients used, and the method by which the product is prepared (Article 7(2) of Commission Implementing Regulation (EU) No 668/2014)

##### STAGE I

###### Raw material sourcing

The raw material for the production of 'twaróg wędzony' is raw cow's milk.

###### Storage of raw milk

The milk may be stored at a temperature below 8 °C for a maximum of 24 hours prior to production.

##### STAGE II

Heating of the milk, degassing, centrifugation and standardisation of the fat

The raw milk is heated in a heat exchanger to a temperature of approximately 65 °C, at which point it is degassed. The fat is then separated using a degreasing centrifuge. After centrifugation, the fat content of the milk is standardised to a minimum of 3,5 % for the production of self-pressed 'twaróg wędzony' or a minimum of 1,6 % for the production of pressed 'twaróg wędzony'.

#### Pasteurisation of the milk

The milk is pasteurised at a temperature of between 74 °C and 80 °C for 45 seconds.

#### Cooling

After pasteurisation, the milk is cooled to a temperature of approximately 20 °C to 30 °C, which is the temperature used for inoculating the milk when producing curd cheeses (see stage III). The milk is placed in a curdling vat.

### STAGE III

#### Inoculation

Cultures of mesophilic lactic bacteria are added to the milk as starter cultures. Depending on the specificity of the bacterial cultures used and the season, inoculation is performed at a temperature of 20-30 °C, with lower temperatures in summer and higher temperatures in winter. The milk contained in the vat is mixed for 15 to 30 minutes after the cultures have been added.

#### Coagulation

The milk coagulates within 12 to 18 hours, depending on the temperature applied and the type of bacterial cultures added. Fermentation continues until a pH of less than 4,65 is reached. The processing of the curd is preceded by an assessment of its firmness by the cheesemaker, who breaks it manually. If the curd breaks cleanly, it is ready for cutting, which is the next production stage.

#### Curd processing

The curd is sliced carefully and set aside for a few minutes. The whey is released from the surface of the curd after it has been cut. The next step in processing consists in mixing at increasing intensity as the curd drains. Heating starts at an initial rate of temperature increase of approximately 1 °C to 2 °C every 10 minutes. The mass of the curd is typically heated to approximately 8 °C to 10 °C above the temperature at which the cultures are added (inoculation). During the heating process, it is mixed regularly. The cheesemaker decides when to end the heating process on the basis of an organoleptic assessment of the extent to which the curd grain has dried. The curd is then left to rest for a few minutes to separate the whey from the curd grain (the grains rise to the surface, the whey accumulates in the lower part of the vat). The processing of the curd takes between 1 and a half hours and 2 hours.

#### Draining the whey

At the end of heating process, the whey is removed in a quantity corresponding to 60 % of the milk used for production.

#### Preliminary draining and pouring-out of the curd

The curd is placed in a press (in the production of pressed 'twaróg wędzony') or in homogenisation equipment (in the production of self-pressed 'twaróg wędzony') where the whey is first separated from the curd grains.

In the case of a curd containing additives, vegetables or spices are added at this stage. The following additives are permitted, with the maximum amounts per 100 kg of finished product indicated in brackets:

- garlic salt (0,25 kg),
- dried crushed garlic (0,3 kg),
- ground or crushed natural pepper (0,3 kg),
- pepper mixed with herbs (0,5 kg),
- fennel seeds (0,5 kg),

- cumin seeds (0,5 kg),
- sweet or hot paprika powder (in various proportions, 0,8 kg in total),
- nigella seeds (0,25 kg).

Cumin or fennel seeds must be blanched in boiling water before being added.

The above additives may be mixed together, in which case the maximum levels of additives per 100 kg of finished product are added up. The total weight of the additives must not exceed 1 kg per 100 kg of finished product.

At this stage, up to 1 kg of salt per 100 kg of finished product may be added to the curd. If garlic salt is added, the amount of salt added at this stage of production must not exceed 0,75 kg per 100 kg of finished product.

Self-pressing in moulds or pressing in presses

For the production of 'twaróg wędzony' self-pressed in moulds: the homogenised grain is poured into moulds, which are then stacked (placed on top of each other). After being initially drained for no more than 30 minutes, the preformed curds in the moulds are turned over and further drained of whey in a cold store.

In the case of pressed 'twaróg wędzony', the curds are poured manually into straining cloths placed on top of each other under the presses. The portions thus prepared are pressed with a force of approximately 10 N/kg of cheese, and the force is gradually increased to 30 N/kg. The pressing time is between 30 and 60 minutes, depending on how dry the grain has become as a result of the heating process. After pressing, the cheese is removed from the draining cloths and cut into rectangles.

At this stage, the cheeses are given their final shape:

- in the case of self-pressed curds, a cylinder with a diameter of approximately 10 cm and a unit weight of 250 g to 300 g;
- in the case of pressed 'twaróg wędzony', a rectangular parallelepiped with a base size of approximately 12 by 8 cm and weighing approximately 250 g.

After self-pressing or pressing, the moisture content of the curd cheese must be less than 70 %.

The cheese is then placed in a cold store. The cooling time depends on the time it takes for the cheese to reach a temperature below 15 °C, but it must not exceed 24 hours.

#### STAGE IV

##### Salting

The self-pressed cheese is salted in brine. 'Twaróg wędzony' may then be described as 'brined'. The cheese is immersed in a brine tank and kept there for the time needed to obtain a salt content of around 1,5 %, which is usually between one dozen and several dozen minutes. The duration of the salting process depends on the salt content of the brine: the higher the concentration, the shorter the salting time. The initial salt content of the brine should be approximately 21 %.

The salting of the pressed cheese involves sprinkling salt on both sides of the cheese uniformly and rubbing its surface. The cheese must then be cooled and dried by air flow to a temperature of 2 °C to 8 °C. The cheese must be turned over during cooling and drying.

#### STAGE V

##### Smoking

The cheese is placed on smoking trolleys with perforated racks (the perforations allow the smoke to reach the surface of the cheese in contact with the rack). The trolleys with the cheese are placed in smoke-filled smoking chambers. Smoke from burning beech and alder wood is used for smoking: natural smoke generators and beech or alder wood chips may be used for smoking. Smoking takes place at a temperature of between 40 °C and 65 °C and is carried out until the typical colour of the finished product is obtained.



## Cooling

The cheese smoked on trolleys is transported from the smoking rooms to separate cold stores, where it is cooled to below 15 °C, usually for 12 to 24 hours.

## STAGE VI

### Packaging

After cooling, the smoked curd cheese is packaged in a modified atmosphere (a mixture of nitrogen and carbon dioxide) or using reduced-pressure packaging.

### Activities prohibited in the production process

- the use of smoke preparations for smoking,
- cold smoking of the cheese.

#### 4.3. Description of the key elements establishing the product's traditional character (Article 7(2) of Commission Implementing Regulation (EU) No 668/2014)

The key elements proving the product's traditional character shall include the main elements that have remained unchanged, with precise and well-documented references.

Curd cheese (twaróg)<sup>(2)</sup> is a milk product that has been produced in Poland for several hundred years, based on the acidification of milk, its subsequent heating, whey separation, and pressing. Curd cheeses are typical products of central and eastern European countries. The Polish term 'twaróg' has no equivalent in the languages of western European countries, and typical Polish curd cheeses are not known in these countries.

As can be seen from Jan Licznerski's book *Serowarstwo* ('Cheesemaking'), published for the first time in 1922, 'since time immemorial, Poles everywhere have produced what are called "gomółki" from curd cheese and dried them to produce reserves'. 'Gomółki' are flattened balls or cakes made from curd cheese that have been dried to preserve them<sup>(3)</sup>.

The development of cheese production in Poland took place mainly in the 18th and 19th centuries, due to the migration of the 'Olender' settlers (the name given to immigrants from the Netherlands, Prussia and Germany), who introduced the rearing of lowland cattle, together with various milk-processing and cheese-making techniques. The Olenders' economy was based mainly on the rearing of dairy cows and the associated dairy production, in particular cheese production.

It is undeniable that curd cheese was the first product to be made from milk. This type of sour cheese, the simplest to make, has remained virtually unchanged to this day.

The most important aspect for understanding the specificities of cheesemaking in the 18th and 19th centuries is that the term 'twaróg' was used for both the product obtained by acid coagulation (with native lactic fermenting bacteria or after the addition of an acid) and the curd separated with the aid of rennet from calves' stomachs. The latter was described as a 'sweet milk curd'<sup>(4)</sup>.

In historical literature, the terms for curd cheeses and rennet cheeses are used interchangeably. It is only through the detailed descriptions of the making of the cheeses and the production techniques involved that we have precise information about the product in question. In the book *Z badań nad żywieniem ludu Łódzkiego (1880-1939)* ('On research into the food of the people of Łódź (1880-1939)'), held by the Archaeological and Ethnographic Museum in Łódź, Jan Piotr Dekowski describes the technology for producing the modern 'twaróg', describing it as 'cheese' made from curdling milk from which the whey has been drained. The author adds that the resulting 'twaróg' was salted and that spices were sometimes added.

<sup>(2)</sup> The Polish term 'twaróg' refers to a casein mass, coagulated using the acid or rennet acid method and appropriately dried, with a water content of up to 65-75 %.

<sup>(3)</sup> J. Licznerski, *Serowarstwo*, Warsaw, 1922.

<sup>(4)</sup> In his book *Teorya Gospodarowania Wewnętrzznego, czyli Zbiór Wiadomości potrzebnych gospodyniom, dla użytku Instytutów -eńskich* ('Theory of Internal Management – The collection of information needed by housewives, for use by women's institutes'), published in 1837, Antoni Waga mentions the following.

Attempts to find methods to extend the shelf life of curd cheeses through drying, salting, smoking and storage under appropriate conditions are typical of the time. We can also see various forms of culinary use of the curd, typically involving the addition of salt, spices and vegetables.

The first references to the smoking of the curd (then known as ‘common cheese’) can be found in Antoni Waga’s book from 1837 <sup>(5)</sup>. The author writes that the common cheese can acquire a pleasant taste by smoking, which also preserves it from mould and rot. He also warns against smoking the curd at excessive temperatures, which could cause bubbles to form or the product to disintegrate. This observation remains valid; the choice of the appropriate temperature and smoking time requires technological knowledge and experience. At the time, juniper branches were used. However, as technology evolved, this wood was replaced by wood from deciduous trees (beech and alder). This was due to technical progress: wood smoking using conifers gives a bitter taste and dark colour and causes the deposition of viscous substances that are harmful to human health.

The 1971 handbook by Tadeusz Obrusiewicz, entitled *Technologia mleczarstwa. Część II*. (Dairy Products Technology. Part II), refers to ‘*twaróg wędzony*’ made in such a way as to extend its shelf life and give it new, pleasant organoleptic characteristics.

The industrial manufacture of curd cheeses is based on the original techniques formerly used in households and on small farms.

The traditional character of the curd cheese production technique is determined by the following elements <sup>(6)</sup>:

- the type of raw material: skimmed milk, standardised milk fat content;
- the extent of heat treatment of the milk: generally short-term pasteurisation at a temperature of approximately 74 °C for a dozen seconds or between 80 °C and 85 °C for a period ranging from a few seconds to a dozen seconds;
- the protein (mainly casein) precipitation method: indirect acidification by acidification of the milk (to a pH of approximately 4,6) using lactic fermentation bacteria;
- the method of processing the curd or coagulated granular mass: size, degree of drying and range of change in the pH of the grain;
- the extent of the final processing of the curd: draining, pressing.

The technique used to make curds for ‘*twaróg wędzony*’ has remained faithful to tradition thanks to the following specific technical activities described, for example, in Instruction No 342 of 1976 on the production of unripened curd cheese, issued by the Central Union of Polish Dairy Cooperatives:

- use of milk with a standardised fat content as raw material,
- short-term pasteurisation,
- coagulation with lactic acid produced by lactic fermentation bacteria – duration of the process between 12 and 18 hours,
- cutting of the curd, mixing and heating/drying of the grain,
- pressing or self-pressing of the cheese.

The technique used to make the product called ‘*twaróg wędzony*’ on an industrial scale was introduced in the early 1980s. That production technique was described in Technical Manual No 256/83 published by the Poznań Provincial Union of Dairy Cooperatives, and the quality requirements were laid down in manufacturing standard Zn-83/CZSML/A-85, published in 1983 by WZSML in Poznań. Given the specific characteristics of the centrally planned economy, this standard was applicable to workshops producing “‘*twaróg wędzony*” throughout the country’. Until now, the production of ‘*twaróg wędzony*’ has followed all the technical protocols laid down in the above-mentioned manual covering the activities related to salting and smoking that give the product its specific characteristics.

<sup>(5)</sup> *Idem*.

<sup>(6)</sup> E. Pijanowski, J. Gaweł, *Zarys chemii i technologii mleczarskiej, tom III* (‘Outline of dairy chemistry and technology, Volume III’), PWRiR, Warsaw, 3rd edition, amended in 1986, pp. 222-223.

Other sources referring to 'twaróg wędzony' are based on the manufacturing standard and the technical manual.

In an article entitled 'Twarogi kwasowe – przetwórstwo' ('Sour fresh cheeses – Production'), published in the specialist press (*Przegląd Mleczarski*, 2008), the expert Krzysztof Bohdziewicz notes that, in curd cheese production, traditionally the main aim was to extend the shelf life of the cheese, whereas nowadays it is to increase the product's nutritional value and commercial attractiveness. 'Twaróg wędzony' within the meaning of the 1983 manufacturing standard is cited as being part of this type of product. The article also refers to the salting of the product and the possible addition of spices.

As regards the procedures described in the manual and the 1983 standard, two types of salting prior to smoking have been permitted over the years: dry salting of the cheese (for pressed cheeses) and salting by immersion in brine (for self-pressed cheeses). Both techniques refer to traditional methods of cheese production <sup>(7)</sup>. The introduction of the method of salting by immersion in brine has improved the quality standards of the product without affecting the characteristics of the final product.

Smoking, in addition to salting and drying, is considered to be one of the oldest methods of preserving food. Nowadays, when the methods of chilling, freezing, freeze-drying, sterilisation and preservation are widely used to preserve food, the smoking process has lost much of its importance as a means of preserving food, whereas its role as a traditional means of processing prepared foods has been strengthened.

'Twaróg wędzony' is smoked using wood of deciduous trees. In the commercial production of 'twaróg wędzony', the smoke is produced in a stack connected by smoke pipes to an appropriate smoking chamber, where the curd cheeses are placed on special racks. New smoking equipment has come into use over the years, including natural smoke generators and beech and alder smoke chips. As a result, the process has become safer, allowing for greater standardisation of the smoking system while preserving the specific characteristics and properties of the product and the traditional method of hot smoking. This is currently the production method used.

In this way, the original character and specific characteristics of the product are preserved, since the curd salting process and hot smoking with wood from deciduous trees have consistently been considered to be fundamental to the unique quality of the product, which is so appreciated by consumers.

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<sup>(7)</sup> E. Pijanowski, J. Gaweł, *Zarys chemii i technologii mleczarskiej, tom III* ('Outline of dairy chemistry and technology, Volume III'), PWRiR, Warsaw, 3rd edition, amended in 1986, pp. 117-123.