

OTHER ACTS

EUROPEAN COMMISSION

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

(2020/C 204/19)

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

'Malostonska kamenica'**EU No: PDO-HR-02426 – 22.8.2018****PDO (X) PGI ()****1. Name(s)**

'Malostonska kamenica'

2. Member State or third country

Republic of Croatia

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

Class 1.7: Fresh fish, molluscs and crustaceans and products derived therefrom

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

Taxonomically, 'Malostonska kamenica' belongs to the species of European flat oyster *Ostrea edulis* Linnaeus, 1758.

'Malostonska kamenica' is a firmly built, asymmetrical, inequivalve, sometimes brittle shellfish with an irregular oval shape and irregular edges. The left (lower) valve (shell) is cupped, while the right (upper) valve is flat and closes into the left valve. The valves are a yellowish, greyey-brown or yellowy-green colour, with purple or reddish tinges. The sculpture of the valves consists of concentric ridges or lines, grooves and ribs and leafy flakes. Radial grooves and ribs may also appear. The inside of the valve is a pearly-white colour, sometimes with multi-coloured blotches.

Soft tissue, or 'meat', fills most of the cavity of the valve and is edible without having to undergo heat treatment. The meat in the visceral hump is characterised by a glossy, whitish-yellowish, firm, domed and swollen fatty structure, while the edges of the mantle are very dark, usually black, and therefore in stark contrast to the bright and glossy visceral hump.

When placed on the market, 'Malostonska kamenica' must be alive and have the following characteristics:

- its valves must be whole, without any damage or deformation, and cleaned of fouling organisms and other impurities;

(1) OJ L 343, 14.12.2012, p. 1.

- the meat must have a greasy texture that melts in the mouth and is soft and succulent to bite; it must have a characteristic, sweet and salty, balanced taste produced from a combination of the sweet and full flavour of the visceral part and a pleasant sea-mineral flavour dominated by an aroma of iodine that lingers on the palate;
- the minimum carbohydrate content in the meat must be 25 milligrams per gram of dry matter;
- the meat index value, i.e. the proportion of meat out of the weight of the whole shellfish (weight of wet meat/weight of whole shellfish × 100) must be greater than 10,5 from February to July and in September, and over 6,5 the rest of the year;
- as well as the meat, the inside of the valve must contain a characteristic, transparent and clear intervalvular liquid, characterised by a refreshing smell of seaweed in the tidal zone;
- the minimum length of a single oyster must be 7 centimetres, the minimum weight 60 grams.

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

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

The first phase of farming consists of the harvesting of juvenile 'Malostonska kamenica', which involves preparing and installing collectors for the juvenile oysters and the grading and sorting of suitable ones. The second phase involves breeding the juvenile oysters in breeding farms until they reach commercial length. Two farming methods are distinguished: farming in crates and nets, and cementing. These two methods are usually combined.

The farming of 'Malostonska kamenica' occurs in floating farms.

All the above-mentioned phases in the production of 'Malostonska kamenica', up to harvesting for the market, must take place within the geographical area defined in point 4.

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

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

When placing the product on the market with any type of pre-packaging, the labelling must contain the name 'Malostonska kamenica', and be clearly distinguishable by size, type and colour of the letters (typography) from any other inscription.

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

The geographical area in which all production phases of 'Malostonska kamenica' take place encompasses the waters of Mali Ston Bay that belong to the Republic of Croatia. Mali Ston Bay is a 28-km stretch of the Neretva Channel that extends between the shores of the mainland and the Pelješac peninsula in a north-westerly/south-easterly direction. It measures 6,1 km at its widest point, between the port of Drače and Soline cove. The bay covers the area from Kuta cove at one end, to the cape of Rat on Pelješac and the cape of Rivine on the mainland at the other end, where the bay is 4,5 km wide.

5. **Link with the geographical area**

The specificity of 'Malostonska kamenica' is based on the unique natural characteristics of Mali Ston Bay, which have led to its designation as a protected natural area, and on the expertise developed over centuries of breeding oysters in Mali Ston Bay. The unique characteristics of the waters of Mali Ston Bay, the optimum quantity and composition of the food, the excellent quality of the sea water, and the use of traditional know-how and expertise are all directly reflected in the quality and organoleptic characteristics of this prized product.

5.1. *Specificity of the geographical area*

Mali Ston Bay has been known throughout history as the place where 'Malostonska kamenica' is farmed. It is thanks to the bay's specific ecological conditions that scientists have shown an interest in the bay and carried out in-depth research here since 1979. The findings of this research led the competent state bodies to designate this a protected area in 1983. It is protected as a special marine reserve to this day.

Mali Ston Bay is characterised by significant freshwater input from submarine springs, the Neretva River and precipitation washing off the mainland. These waters act as a specific regulator of temperature and salinity and enrich Mali Ston Bay with nutrients, making the area highly productive. Mali Ston Bay is shallow, with an average depth of 15 m and a silty seabed, which not only helps maintain the particular ecological conditions for shellfish farming, but also favours production techniques.

The specificity of the coastal geographical area of Mali Ston Bay lies in its vegetation, which is dominated by scrubland and holm oak woodland, the plant residues of which are deposited on the coastal top soil, preventing soil erosion. This vegetation allows for a gradual flow of nutrients (phosphates, silicates, nitrates) and minerals from the mainland to the sea, contributing to a balanced development of the phytoplankton populations that provide 'Malostonska kamenica' with important nutrients.

The characteristics of the waters are also influenced by the winds. Under the influence of northerly and southerly winds, water exits Mali Ston Bay in the surface layer and enters the bay in the bottom layer, bringing with it deep-sea plankton species. By contrast, strong westerly winds amplify the effect of the Neretva River, thereby reducing salinity values. The shallow depth of the waters gives rise to powerful sea currents running in variable directions. This allows the sea waters of the bay to be well-aerated and ensures planktonic food is well distributed.

The constant flow of nutrients from the mainland, powerful currents, the influence of the winds, and thermohaline properties combine to form a specific plankton community. A total of 195 species of microphytoplankton have been found in Mali Ston Bay. Diatoms and gymnodinoid dinoflagellates dominate throughout the year, while in winter a dense population of microzooplankton develops in the bay, especially groups of tintinnids, formed of 20 species.

The tradition of shellfish farming in Mali Ston Bay with particular regard to oysters dates as far back as the Roman Empire (Pliny – *Naturalis Historia*) and the Dubrovnik Republic (Order of the Prince of Ston from 1641). The first available archive record on how to gather oysters from natural nurseries and on semi-farming in Mali Ston Bay dates from 1573. Oyster farming was already well-established by the 16th century, when it was in the hands of representatives of the Dubrovnik Republic in Ston. The first commercial shellfish farm on the Dalmatian coast was founded by Captain Stijepo Bjelovučić in Sutvid cove, next to Drače, in 1889, significantly improving the technique for farming oysters in the area.

The centuries-old tradition of oyster farming in Mali Ston Bay has resulted in an accumulation of specific know-how and expertise among local shellfish farmers. These farmers became increasingly familiar with the characteristics of the production area over time, constantly adapting and enhancing their farming practices so as to improve the quantity and quality of the oysters farmed.

One of the farming processes is linked to the high plankton production of Mali Ston Bay, which has a positive effect on the growth and condition of the oysters, but also favours the intensive growth of fouling organisms, which slow the development of oysters. For that reason, local farmers clean the oysters of these fouling organisms more frequently, selecting only the best oysters for further farming. As oysters are very sensitive during the early phases, the fouling organisms are cleaned off by hand, which allows the oysters to be examined one by one before being selected or discarded. To breed oysters of the highest quality, the above process is carried out 3-5 times during a single production cycle.

5.2. Details of the quality of the product

The specificity of 'Malostonska kamenica' is based primarily on the organoleptic characteristics of the meat.

The meat of 'Malostonska kamenica' is characterised by a firm, domed and swollen fatty structure of a glossy whitish-yellowish colour, which develops as a result of the accumulation of glycogen in the visceral hump. Glycogen is a reserve substance and a source of energy for building and developing gonadal tissue during the spawning process. It is stored in the visceral hump above the gills, between the adductor and joint muscles. Glycogen is a polysaccharide of glucose, which accounts for almost the entire share of carbohydrates in the meat of the oyster. The highest glycogen content in the meat of 'Malostonska kamenica' can be found during winter and early spring, which means the oyster is at its fattiest and fatter during that period.

As well as the fatty tissue or 'meat', the inside of the valve of 'Malostonska kamenica' also contains a characteristic, transparent and clear intervalvular liquid, characterised by a refreshing smell of seaweed in the tidal zone.

The meat has a greasy texture and is soft and succulent to bite, with a specific, sweet and salty, balanced taste. The taste is produced from a combination of the sweet and full flavour of the visceral part and a pleasant sea-mineral flavour dominated by an aroma of iodine that lingers on the palate. The visceral hump, with its reserves of glycogen, melts in the mouth, producing a distinct, sweet and full flavour. The characteristic mineral flavour is the result of a combination of the minerals contained in the meat and intervalvular liquid.

The carbohydrate content of the meat of 'Malostonska kamenica' – formed almost entirely of glycogen – varies according to the time of year. To ensure the minimum quality of 'Malostonska kamenica' in terms of its recognisable succulence and sweetness, the minimum carbohydrate content in the meat must be 25 milligrams per gram of dry matter.

The commercial quality of 'Malostonska kamenica' is mainly determined by the amount of meat inside the mantle cavity, i.e. by the meat index. In a scientific study, A. Gavrilović and others tested the quality of meat of 'Malostonska kamenica' in Mali Ston Bay and found, according to the French standard (IFREMER, 2003), that 'Malostonska kamenica' can be divided into three different quality groups by meat index value (weight of wet meat/weight of whole shellfish × 100). The meat index shows that for seven months of the year (from February to July, and in September) 'Malostonska kamenica', according to the French standard, belongs to the top category (*catégorie spéciale*, with a meat index > 10,5), and for the rest of the year to the excellent category (*catégorie fine*, with a meat index of 6,5–10,5). The lowest category, 'non-classified' (*non classées*, meat index < 6,5), was not found. This suggests that 'Malostonska kamenica' is of outstanding quality all year round, especially considering that even in the lower category of 'excellent', the values are very close to the maximum standard for that category (A. Gavrilović and others, *Utjecaj indeksa kondicije i stupnja infestacije ljuštore polihetom Polydora spp. na kvalitetu europske plosnate kamenice Ostrea edulis (Linnaeus, 1758) iz Malostonskog zaljeva*, 2008).

The results of genetic analyses also point to the specificity of 'Malostonska kamenica', confirming the genetic diversity of its population, which differs from the other populations of oysters analysed in terms of the number of different haplotypes (Annex 4.20. Ruđer Bošković Institute, Final report on a project entitled *Zaštita proizvodnje malostonske kamenice dokazivanjem autohtonosti*, 2009).

'Malostonska kamenica' is named after Mali Ston Bay, where the oyster is farmed. The name first appeared and began to be used in everyday speech in the 1970s (A. Šimunović, *Problemi uzgoja kamenica u Malostonskom zaljevu*, 1975).

The level of recognition enjoyed by 'Malostonska kamenica' was demonstrated in a Croatia-wide poll. The findings of the poll, carried out on a sample of 1 000 respondents in six Croatian regions, point to a high degree of recognition of 'Malostonska kamenica'. When asked 'Have you heard of Malostonska kamenica?', 56 % of respondents answered in the affirmative.

At the end of the 19th century, 'Malostonska kamenica' was awarded various diplomas. It won the Grand Prix award at the World Exhibition in London in 1936, earning the gold medal for quality.

5.3. Causal link between the geographical area and the product

The specific characteristics of 'Malostonska kamenica' are produced under the influence of environmental factors of the geographical area in which they are farmed, and are partly the result of traditional farming practices used by local shellfish farmers.

A major environmental factor is the freshwater that enters Mali Ston Bay from various sources. This freshwater reduces the salinity of the sea water, while also acting as a heat regulator. By reducing the seasonal temperature highs and lows of the sea water, and its salinity, the negative influence of these factors on the growth and development of the oysters is reduced in turn. The freshwater also enriches Mali Ston Bay with nutrients, making the area highly productive, and the specific vegetation allows for a gradual flow of nutrients (phosphates, silicates, nitrates) and minerals from the mainland to the sea, contributing to a balanced development of the phytoplankton populations that provide 'Malostonska kamenica' with important nutrients. The regulated temperature and salinity and the uniform development of the phyto- and microzooplankton populations are reflected in the consistently high meat index for 'Malostonska kamenica' throughout the year. This confirms the link between the specific conditions in the bay and the quality of the oyster all year round. In addition to providing nutrients, the increased flow of freshwater also increases the concentration of minerals in Mali Ston Bay, which in turn affects the accumulation of these minerals – especially zinc, iron and iodine – in the meat of the oyster.

The specific ecological conditions of Mali Ston Bay and its geographical isolation may also have influenced the biological specificity of 'Malostonska kamenica', as reflected in its genetic diversity compared with other populations. The fact that 'Malostonska kamenica' has fully adapted to its local environment, combined with traditional farming practices, allows its genetic potential to be realised to the full, which can ultimately be seen in the specific organoleptic characteristics of the product.

The specific ecological conditions in Mali Ston Bay have a positive effect on the reproductive cycle of 'Malostonska kamenica', resulting in a biannual spawning cycle with high concentrations of larvae. Mali Ston Bay has the highest concentration of larvae in the Adriatic Sea and is the only part of the Adriatic where larvae can be harvested successfully twice a year (M. Meštrov and A. Požar-Domac, *Bitna svojstva ekosistema Malostonskog zaljeva i zaštita*, 1981, A. Šimunović, *Stanje i problemi uzgoja kamenice i dagnje u Malostonskom zaljevu*, 2001). As well as pointing to the extremely favourable conditions for oyster farming in Mali Ston Bay, the biannual spawning cycle once again confirms the specificity of 'Malostonska kamenica' and its ability to realise its specific genetic potential to the full.

The use of traditional farming processes, including the frequent cleaning-out by hand of fouling organisms, and the specific method for selecting oysters, in which only the best are picked for further rearing, affect the oysters' filtration capacity and their ability to feed, i.e. their growth and development. The manual cleaning method used by shellfish farmers in Mali Ston Bay greatly reduces the occurrence of the polychaete *Polydora* sp., which negatively affects the condition index and organoleptic characteristics of the oyster. A much lower number of polychaeta has been found in the valves of oysters in Mali Ston Bay compared with other production areas. Local shellfish farmers have learned from experience that examining and cleaning oysters 3-5 times during a production cycle ensures maximum filtration capacity, which affects not only nutrition, but also the reproductive cycle and the absorption of minerals, as well as the characteristic taste of 'Malostonska kamenica'.

Genetic specificity; the diversity and combination of plankton species; the specific reproductive cycle; the flow of minerals from the mainland; powerful sea currents; the quality and good aeration of the sea water; and the use of traditional expertise by local shellfish farmers: all these factors combine to produce the high quality and specific, recognisable organoleptic characteristics of 'Malostonska kamenica'.

Reference to publication of the product specification

(the second subparagraph of Article 6(1) of this Regulation)

<https://poljoprivreda.gov.hr/UserDocsImages/arhiva/datastore/filestore/82/Specifikacija-Malostonska-kamenica-11.pdf>
