

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 317/10)

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

SINGLE DOCUMENT

‘ČESKÝ MODRÝ MÁK’

EU No: PGI-CZ-02236 – 3.11.2016

PDO () PGI (X)

1. Name(s)

‘Český modrý mák’

2. Member State or third country

Czechia

3. Description of the agricultural product or foodstuff

3.1. Type of product

Class 1.8: Other products of Annex I to the Treaty (spices, etc.)

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

The protected geographical indication ‘Český modrý mák’ is intended for seeds of the annual blue poppy (*Papaver somniferum* L.) that meet the requirements for food use in accordance with the quality specifications given in this document.

The product covered by the protected geographical indication ‘Český modrý mák’ is intended for use in foodstuffs and on release for consumption by the final consumer must display the following features:

Physical and organoleptic characteristics.

Appearance: kidney-shaped seed, around 1 mm long, pitted on the surface in hexagonal indentations bordered by slightly protruding ribs, healthy, undamaged, ripe, fit for storage.

Colour: bright, sky-blue to blue-grey.

Flavour: sweet, with a slight hint of bitterness.

Aroma: distinctive, typical of ‘Český modrý mák’, delicate and pleasant.

Consistency: free-flowing, without lumps.

Chemical and nutritional data:

Average nutritional data per 100 g of ‘Český modrý mák’ poppy seeds (selected):

calcium 1 402 mg,

copper 2,20 mg,

fats 45,80 g,

zinc 10 mg,

niacin 0,99 mg,

magnesium 333 mg,

⁽¹⁾ OJ L 343, 14.12.2012, p. 1.

iron 9,50 mg,
vitamin E: 4 mg,
sodium 21 mg,
thiamine 0,86 mg,
manganese 2 mg,
phosphorus 854 mg,
vitamin B6: 0,55 mg,
potassium 705 mg,
riboflavin 0,17 mg.

The overall content of morphine, thebaine and codeine must not exceed 25 mg/kg on the seed surface, and 0,8 % in the dry matter of the capsule. The product covered by the protected geographical indication 'Český modrý mák' can in no way be confused with technical poppy seeds produced as a raw material for pharmaceutical use.

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

—

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

Cultivation, harvesting and drying

The product is grown in suitable soil in the identified areas, with sowing completed by 20 April.

Harvesting of seeds may be mechanised (usually in conventional agriculture), or possibly manually (especially in the case of organic farming).

The poppy straw and seed mixture must be completely dried in halls with active ventilation.

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

The product must not be mixed with products that do not meet the specification requirements.

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

—

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

The boundaries of the geographical area are defined as follows:

- in the south-west: Chebská pánev, Český les, Šumava, Blanský les and the foothills of the Novohradské hory,
- in the south: Třeboňská pánev, the southern edge of Českomoravská vrchovina, and the River Dyje and River Morava beyond Hodonín,
- in the south-east: the western and northern edges of the Bílé Karpaty protected landscape area,
- in the east: the western, northern and south-eastern edges of the Beskydy protected landscape area,
- in the west the area is delimited by the River Ohře,
- the north-west boundary is defined by the Mostecká pánev and the River Elbe as far as Děčín,
- the northern boundary is defined by the rivers Ploučnice and Kamenice, by Lužické hory and further by the Liberecká pánev, the southern slopes of the Krkonoše, the Broumovské hory and the southern slopes of the Orlické hory,

in the north-east: foothills of Kralický Sněžník, the Rychlebské hory and Zlatohorská vrchovina, the River Opavice up to its confluence with the River Opava, the River Opava up to its confluence with the River Oder, the River Oder up to its confluence with the River Olše, the River Olše up to its confluence with the River Lomná and the River Lomná up to the Beskydy protected landscape area.

5. Link with the geographical area

The application for the registration of 'Český modrý mák' is based on the sensory and nutritional properties of these poppy seeds, which distinguish it from other poppy seeds on the market and are related to cultivation in the geographical area.

The product covered by the protected geographical indication 'Český modrý mák' provides a characteristic aroma and taste, since the seeds of other blue poppy seeds, in particular the light-coloured variant, have a bland taste and smell or no taste or smell at all, and, owing to their very thin episperm, are low in fibre and lignin and accompanying substances that are important in terms of taste. 'Český modrý mák' is thus a product with characteristic sensory properties that distinguish it from other poppies. The poppy seeds contain 40 to 60 % of very valuable oils (linoleic acid predominates, as well as oleic, palmitic, stearic and also linolenic acids).

The unique characteristics of the product covered by the protected geographical indication 'Český modrý mák' are linked to a combination of specific soil types and climatic regions in the geographical area in question, following the tradition of cultivating poppies under these conditions for more than 150 years. The protected geographical indication includes all areas with the defined soil types up to an altitude of 700 m above sea level. The regions designated for cultivation of the protected geographical indication include climatic regions up to an altitude of 700 m, with the best production conditions being found in slightly hilly to flat areas with altitudes ranging from 300-700 m in beet and barley or potato and wheat and barley production zones (Vrbenský, 1960). The climatic regions identified on the map of climatic regions of the Czech Republic correspond substantially to the soil types.

(a) Specified soil types:

pararendzina, rendzina (leptosol (calcaric)), arenic regosol, fluvisol, smonice (vertisol), chernozem (black earth), chernics, shedozem (grey earth), hnedozem (brown earth), luvisol, modal cambisol, acidic cambisol, dystic cambisol, eutrophic cambisol, pelozem (clayic cambisol), pseudogley (stagnosol), gley, organosol, anthrosol.

(b) Climatic regions:

warm, dry; warm, moderately dry; warm, moderately humid; moderately warm, dry moderately warm, moderately humid; moderately warm (to warm), significantly humid; moderately warm, humid.

The quality of 'Český modrý mák' is substantially determined by the climatic conditions, especially the temperatures and rainfall over the course of the year, which differ significantly from those in other areas. This is especially important when combined with the soil types present in the identified area. The main difference between the climate in the defined climatic regions and coastal climates can be found in the winter period (moisture reserve levels at the start of spring are higher and so more suitable for planting) and also in the fact that less moisture in the summer months does not negatively impact on poppy production because poppy is unable to withstand damp weather when ripening. Water shortages are a significant negative limiting factor for poppy production. 'Český modrý mák' requires structural soil types with good water management; conditions in the soil types indicated are ideal because they enable the crops to be sown in cold soil, which retains at least the remaining winter humidity and condensation from soil and air moisture. Sunny and warm weather is ideal in the climatic regions used for growing poppy, which is a long-day plant. Such weather is also highly desirable when the capsules flower and ripen because it speeds up this process. The warmth requirements change during vegetation. These requirements can be best met only in the climatic regions of the Czech Republic, because excessively hot climates have a negative effect on fat formation and, owing to the negative correlation between lipid and protein content, lead to an increase in proteins, the precursors of morphine.

The product covered by the protected geographical indication 'Český modrý mák' is an oily poppy plant characterised by low alkaloid content and considerably lower morphine and thebaine levels, which is a typical property, also indicated by its sensory properties (aroma and flavour). Long-term analyses carried out in the Czech Republic and in foreign laboratories have confirmed that the morphine content in the product covered by the protected geographical indication 'Český modrý mák' is below the limit set by local legislation. The product is also characterised by a very low content of other alkaloids. Other poppy seeds must be processed for food use, because their morphine content, for example, is as much as ten times higher. However, the quality and sensory properties (flavour, aroma) of those poppy varieties deteriorate during such processing (washing of the seeds, thermostabilisation, etc.) In other words, the positive sensory characteristics of the product covered by the protected geographical indication 'Český modrý mák' occur naturally as a result of the geographical area the product originates from, and there is no need for processing.

The product covered by the protected geographical indication 'Český modrý mák' has beneficial nutritional properties and contains a significant amount of dietetic ingredients. It has an especially high calcium content (600 times higher than wheat flour and nine times higher than walnut kernels), a high content of vitamin E, pantothenic acid, niacin and thiamine and a high mineral content (copper, zinc, magnesium, iron).

Furthermore, the higher latitude and favourable altitude have a positive effect on creating a higher proportion of unsaturated fatty acids with lower viscosity and less prone to become oxidised. They also positively influence the more beneficial nutritional values. This is illustrated by expert studies and results of experiments enabling detection of the behaviour of fatty acids and their esters (Steinbach M, Lazarovici M, Ille C, et al. *Rev Tomaine Med Ing1*, 451, 1964; Vereschagin AG, *Biochimija* 27, 1866, 1962). The product grown in this climatic region contains a significant amount of linolenic and linoleic acid. This further confirms the specific nature of the product covered by the protected geographical indication 'Český modrý mák', which arises from its distinctive characteristics attributable to its geographical origin (Zehnálek P., 'Mák – stále nedocenený' [The Poppy – Still Underestimated], 4, *Výživa a potravin* [Nutrition and Food] 5/2016).

Given its quality characteristics, Český modrý mák is highly valued in a number of countries – as shown by the fact that more than 85 % of seeds of Český modrý mák are exported. It is a popular food ingredient, especially in countries where poppy seeds are used as a filling in bakery products.

Reference to publication of the product specification

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

https://isdv.upv.cz/webapp/resdb.print_detail.det?pspis=OP/263
