



C/2024/6963

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

(C/2024/6963)

Following this publication, the authorities of a Member State or of a third country, or a natural or legal person having a legitimate interest and established or resident in a third country, may lodge, in accordance with Article 17 of Regulation (EU) 2024/1143 of the European Parliament and of the Council ⁽¹⁾ an opposition with the Commission within 3 months from the date of this publication.

The product specification complying with Article 7 of Regulation (EU) No 1151/2012 is found in the Union register of geographical indications.

SINGLE DOCUMENT

‘Aydın Memecik Zeytini’

EC No: PDO-TR-02813 – 12.11.2021

PGI () PDO (X)

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

‘Aydın Memecik Zeytini’

2. Member State or Third Country

Türkiye

3. Description of agricultural product or foodstuff

3.1. Type of product [listed in Annex XI]

Class 1.6. Fruit, vegetables and cereals fresh or processed

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

‘Aydın Memecik Zeytini’, a table olive, is the fruit of the Memecik variety of olive trees from the *Olea europaea* L. species grown in Aydın province. They have three main colours or cover three variants: green, pink and black olives. The small protrusion at the tip of the fruit gives the variety its name.

Some morphological characteristics of ‘Aydın Memecik Zeytini’ are as follows:

- Size: Large
- Shape: Oval
- Longitudinal symmetry: Asymmetrical
- Transverse symmetry: Asymmetrical
- Widest point: Near the middle
- Tip: Pointed bulge

⁽¹⁾ Regulation (EU) 2024/1143 of the European Parliament and of the Council of 11 April 2024 on geographical indications for wine, spirit drinks and agricultural products, as well as traditional specialities guaranteed and optional quality terms for agricultural products, amending Regulations (EU) No 1308/2013, (EU) 2019/787 and (EU) 2019/1753 and repealing Regulation (EU) No 1151/2012 (OJ L, 2024/1143, 23.4.2024, ELI: <http://data.europa.eu/eli/reg/2024/1143/oj>).

- Fruit surface: Rough
- Fruit colour: Green to black, depending on the maturity index
- Minimum and maximum fruit length: 25,61-27,04 mm
- Minimum and maximum fruit width: 19,30-19,40 mm
- Minimum and maximum seed length: 16,5-17,4 mm
- Minimum and maximum seed width: 7,5-8,7 mm
- Minimum and maximum fruit weight: 3,5-4,78 g
- Minimum and maximum fruit flesh content: 75-88 %
- Minimum and maximum seed content: 12-15 %
- Minimum and maximum flesh to seed ratio: 7,53-7,60
- Minimum and maximum oil content: 20,00-24,50 %
- Minimum and maximum number of fruits in per kilogram: 200-230 pieces
- Fruit index (fruit length/fruit width) value: In the range of 1,4-1,5

When picking, the olive's ripeness distinguishes the green olives from the black ones. The degree of ripeness, together with the production method, particularly the flavouring, makes it possible to obtain three variants with the following characteristics:

1. Whole green

Olives picked before winter. They are harvested between 0 and 1 (skin color deep green and yellow-green) according to the maturity index accepted by the International Olive Oil Council.

Organoleptic characteristics:

- Colour: green to yellowy-green of low intensity.
- Aroma: intense vegetable (olive leaf) and mineral (brine).
- Texture: firm to the touch and barely deformable. In the mouth, it is characterised by its high firmness, cohesion and low friability.
- Flavour: intense; a balance between acid, salty and bitter flavours.
- Sensations: marked astringency and spiciness.
- Prolonged after-taste and pronounced astringency.

Biochemical characteristics:

- Total sugar content (mg/100 g): 4,75
- Total organic acid content (mg/100 g): 3 146

2. Pink

Olives picked before winter. They are harvested between 2, 3, and 4 (skin color with half the fruit surface turning red, purple, and green flesh) according to the maturity index accepted by the International Olive Oil Council.

Organoleptic characteristics:

- Colour: green to yellowy-green, turning red.
- Aroma: intensely vegetable, with the aromatic plants (fennel) clearly identifiable and a light hint of chilli peppers.

- Texture: soft to the touch, deformable and elastic, accentuating the irregular incision of the epicarp and mesocarp resulting from the bruising process. In the mouth, it is soft, unctuous and has average cohesiveness.
- Flavour: intense, salty, and bitter.
- Sensations: pronounced astringency and spicy sensation.
- After-taste: prolonged

Biochemical characteristics:

- Total sugar content (mg/100 g): 3,23
- Total organic acid content (mg/100 g): 4 010

3. Natural black

These olives are picked later in winter. They are harvested between 5, 6, and 7 (skin color all purple or black with half the flesh turning purple) according to the maturity index accepted by the International Olive Oil Council.

Organoleptic characteristics:

- Colour: dark brown, almost black.
- Aroma: average intensity.
- Texture: the surface is smooth and irregular to the touch. In the mouth, the texture of the mesocarp is unctuous, soft and juicy, with low cohesiveness.
- Flavour: intense, with balanced acidic and salty flavours.
- Sensations: a slight bitterness and astringent note can be detected.
- After-taste: average duration.

Biochemical characteristics:

- Total sugar content (mg/100 g): 3,76
- Total organic acid content (mg/100 g): 5 315

'Aydın Memecik Zeytini' is a variety of olives that allows oil production besides being used as table olives. Table olives are classified as green, pale/pink, and black according to the degree of maturity of the raw olives, as fermented, naturally fermented, and blackened by oxidation according to processing methods. In natural fermented processing methods, olives are treated with dry salt, salt brine, or simply water, and in fermented methods, they are treated with alkaline solution. Then the bitterness is removed, and olives are left to ferment as required to be flavoured and packed. Table olives processed this way should taste and smell as expected and be at their typical edible maturity.

'Aydın Memecik Zeytini' could not be consumed directly without processing due to its characteristics and bitterness. The oil ratio of olives is one of the critical components in terms of the fatty acids they contain, in the emergence of the characteristic features of the fruit, and in determining the caloric value. The oleic acid in green, pink, and black maturity periods has the most fatty acids. During the ripening period on the tree, the fat content of olives increases while the sugar amount decreases, exhibiting a positive correlation between the total amounts of sugar and organic acid depending on ripening. 'Aydın Memecik Zeytini' is a nutritional and aromatic plant with biochemical elements that combine the olives' fat 20-25 %, raw protein 1-2 %, fiber 1-2 %, ash (mineral substance) % < 1, non-reductive sugar < 0,3 %, reduced sugar 3-6 %, polyphenols 1-3 %, organic acids, and salts 0,5-1 %, pectic substances < 0,6 %, and other compounds 3-7 %.

The amounts of luteolin-7-glycoside (1 266,84 mg/kg), rutin (491,67 mg/kg), *trans*-cinnamic acid (1 098,84 mg/kg), cyanidin-3-glycoside (212,73) and cyanidin-3-rutinoside (410,63 mg/kg), which are the phenolic components of olive, are high.

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

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3.4. *Specific steps to be taken for production in the identified geographical area*

The production and processing (grafting, growing from seeds, fertilization, pruning, harvesting, selection, separation, cleaning, adding brine, fermentation, aeration, etc.) of the olives of origin occur in Aydın.

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

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

Except for necessary information regarding the presentation and labeling of foodstuffs Labels must include the following:

- The name of the designation 'Aydın Memecik Zeytini',
- Trade name and address or short name and address or registered mark of the producer,
- European Union PDO logo.

4. **A concise definition of the geographical area**

The geographical area where 'Aydın Memecik Zeytini' is produced is within the boundaries of Aydın province.

Aydın province has 17 districts: Efeler, Bozdoğan, Buharkent, Çine, Germencik, İncirliova, Karacasu, Karpuzlu, Koçarlı, Köşk, Kuyucak, Kuşadası, Nazilli, Söke, Sultanhisar, Didim, and Yenipazar.

5. **Link with the geographical area**

Specificity of the geographical area

The Mediterranean climate is dominant in Aydın. Summers are hot and dry, and winters are rainy. Snowfall is sporadic. The average temperature for many years is 17,6 °C. Annual precipitation is between 580-1 000 mm. The average number of rainy days is 80,6, and the average precipitation is 677,5 mm/year.

Moreover, this value meets the annual precipitation demand of 'Aydın Memecik Zeytini'. In the province of Aydın, the air currents from the west are influential. The wind direction is mostly east-southeast, followed by southwest and west winds.

The climatic characteristics of the region, the soil structure, the appropriate pH level, and the rich vegetation of the mountains surrounding this region ensure that 'Aydın Memecik Zeytini' has its characteristics. The agricultural land is suitable for producing olives. Generally, olives are cultivated in plains and mountainous areas. Olives, especially in mountainous areas and to be used as table olives, have to be harvested by hand, which allows the selection of the ideal olives. The only water supplied is rainwater.

Although olives are not very selective regarding soil requirements, they prefer soils with lime-sand, rich in nutrients and pH of 6-8. Since the olive-growing soils of the Aydın region usually have these features, Memecik olives can have the positive quality characteristics mentioned above, such as size, color, fat ratio, and content of phenolic compounds. For olives of the Memecik variety, the only rootstock used is from wild olive trees, which are ideal because of their great hardiness and they grow wild in Aydın, which makes them perfectly adapted to the environment.

Human Factors

Historically, olive producers in Aydın have worked to convert existing wild trees into Memecik olive varieties by making graft labours in wild olive trees, especially in mountainous areas. The farmers' specific knowledge covers grafting onto wild olive trees and harvesting the fruit by hand at the optimum ripening point for each of the variants. This hand-picking makes it possible to determine the ideal time for picking the olives, directly affecting two compound types: the phenols and the volatile compounds, giving the olives their characteristic flavour and aroma.

The flavouring technique, closely linked to the geographical area, comes from the producers' know-how. The operators' expertise, handed down orally in most cases, comes from cultivating and processing olives for centuries, ensuring their quality. Thus, for example, some suitable cultivation methods, resulting from the farmer's experience, make it possible to reduce and avoid flawed olives unsuitable for production. Furthermore, a producer's sound knowledge of olives makes avoiding fermentations and other alterations in the olive possible. All of this is achieved by adapting the processing and environmental conditions and those of the workers and installations to the characteristics of the olives.

Specificity of the product

'Aydın Memecik Zeytini', a table olive, is the fruit of the Memecik variety olive trees from the *Olea europae* L. species grown in Aydın province. They have three primary colours and cover three variants: green, pink, and black olives.

The distinctive character of 'Aydın Memecik Zeytini' is mainly due to the following organoleptic characteristics: bitterness and aroma, which give it its outstanding reputation. This bitterness is due to the high polyphenol content in the green, pink, and black olives. The amounts of luteolin-7-glycoside, rutin, trans-cinnamic acid, cyanidin-3-glycoside, and cyanidin-3-rutinoside, which are the phenolic components of olives, are higher in 'Aydın Memecik Zeytini' when compared to other olives in the region. For instance, the amount of luteolin from phenolic compounds of 'Aydın Memecik Zeytini' is 1 266,84 mg/kg, while in another variety, it is 742,88 mg/kg; the routine amount is 491,66 mg/kg, while other types contain 378,74 mg/kg.

'Aydın Memecik Zeytini' is a nutritional and aromatic plant with biochemical elements that combine the oil content 20-25 %, raw protein 1-2 %, fiber 1-2 %, ash (mineral substance) % < 1, non-reductive sugar < 0,3 %, reduced sugar 3-6 %, polyphenols 1-3 %, organic acids and salts 0,5-1 %, pectic substances < 0,6 %, and other compounds 3-7 %.

Causal link

The geographical area with distinctive characteristics due to the area's terrain, soil, climate, the farmers' experience, and the historical tradition of olive growing has a great impact on 'Aydın Memecik Zeytini'. Therefore, the ideal conditions for the wild propagation of the rootstock in the geographical area gave rise to the Memecik olive variety, which, with the method of cultivation and ancestral production techniques, has led to 'Aydın Memecik Zeytini' with its distinctive quality features.

The air currents from the west are especially effective in Aydın. The wind direction is mostly east-southeast, followed by southwest and west winds. Aydın province is on the Büyük Menderes Basin. Since the Büyük Menderes valley opens towards the sea, the winds that bring the warm effect and precipitation from the sea can easily reach the interior regions. These winds give 'Aydın Memecik Zeytini' distinctive organoleptic properties and protect the olives against the olive fruit fly during ripening.

The harvesting in stages, before winter for the whole green and pink olives and after winter for the natural black olives, means that the olives ripen on the trees, which gives each of these three variants their typical organoleptic characteristics. Hand-picking by experienced farmers makes it possible to ensure optimal organoleptic characteristics and is responsible for the characteristic firmness of all the olive variants. Fortunately, the producers in the region can determine the appropriate maturity periods according to their processing techniques. Because of its sensory properties, olives reveal the sensory character of table olives after and before processing.

The bitter substance in olive fruit, its fat content, and its low sugar content mainly allow 'Aydın Memecik Zeytini' to be separated from other olive varieties. It cannot be consumed without processing due to its bitter taste caused by phenolic compounds. The phenolic content of Memecik olives, which is significantly associated with bitterness, remains higher than that of other olives even after sweetening and fermentation process.

It is seen that the bitter taste of 'Aydın Memecik Zeytini' is related to phenolic compounds. During sweetening and fermentation to relieve this bitterness, the sensory properties of the final product emerge in this way by acquiring acidic, salty, metallic, and alkaline flavors and different smells. Therefore, the sensory properties of 'Aydın Memecik Zeytini' arise with natural conditions and human activities, such as producers applying cultural processes early or sufficiently and determining the appropriate harvest time.

Reference to the publication of the specification

Official Geographical Indication, Designation Of Origin And Traditional Speciality Guaranteed Bulletin of Turkish Patent and Trademark Office No 101 of 17 May 2021, page 96.
