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PRODUCT SPECIFICATION

PDO (X) PGI ( )

Responsible Department

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1. Applicant Group

Name: S.S. Bursa Bölgesi Köy Kalkınma ve Diğer Tarımsal Amaçlı Kooperatif Birliği
Address: Demirtaşpaşa Mah. Celal Bayar Cd. 11 Ata Sok. Petek Bozkaya İşmerkezi, B Blok, No:1, Kat:5, Da: 501, Osmangazi, BURSA Türkiye TÜRKİYE
Phone: (0532) 683 44 31 - (0224) 271 11 67
Email: tarkoop16@gmail.com
Composition: Producers, cooperative, warehouseman, packer

2. Name of the product

'Bursa Şeftalisi'

3. Type of product

Class 1.6. Fruit, vegetables and cereals fresh or processed

4. Description of the Product

The name 'Bursa Şeftalisi' refers to the fresh fruit of the "J.H. Hale" and "Glohaven" varieties belonging to Prunus persica L. species. Both cultivars are loose stoned, with yellow skin blushed with red, yellow flesh that is sweet and juicy. Fruits of J.H. Hale cultivar are medium-sized, fuzzy and firm, sweet and juicy. Fruits of Glohaven cultivar are medium-sized, slightly fuzzy and medium firm.

When placed on the market, the fruit has the following characteristics:

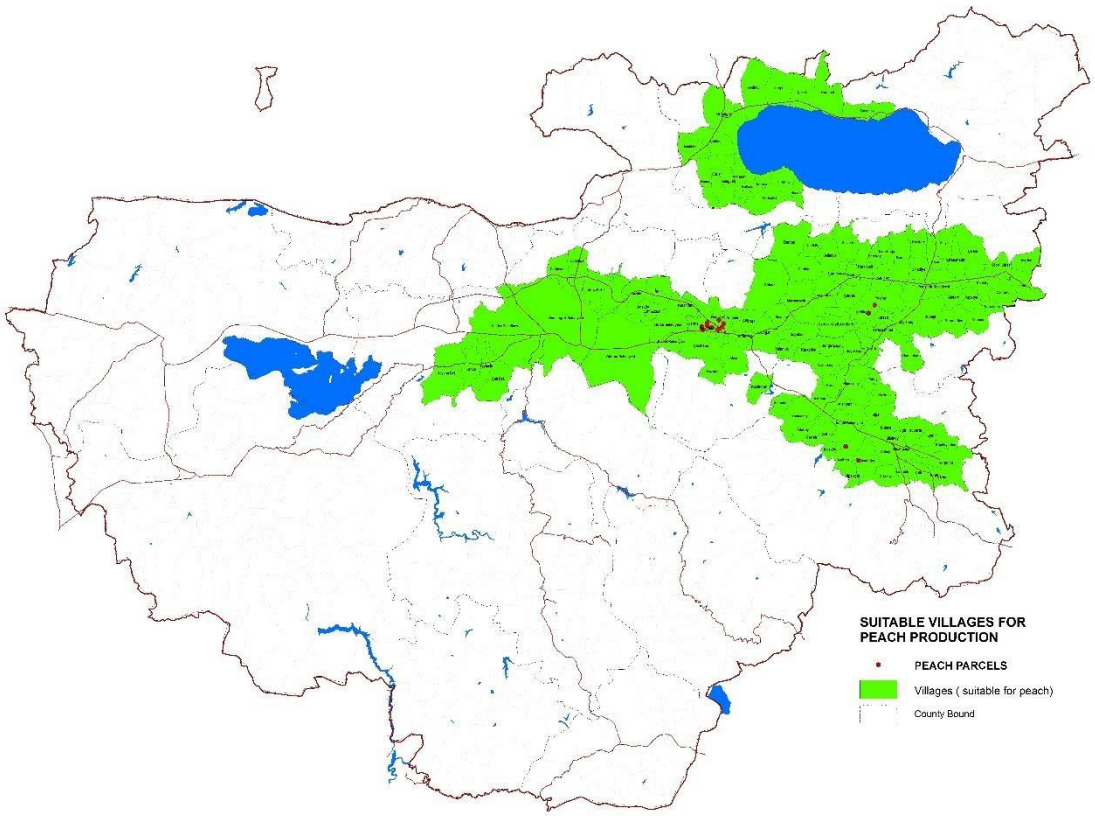
		J.H. Hale	**Glohaven**
Skin Colour	L	60,00 - 70,00	45,00 - 65,00
	a	20,00 - 30,00	30,00 - 40,00
	b	40,00 - 50,00	25,00 - 45,00
Flesh Colour	L	70,00 - 80,00	75,00 - 80,00
	a	10,00 -20,00	14,50 - 20,50
	b	55,00 - 60,00	55,00 - 65,00
Firmness (kg/cm^2)		5,00 - 7,00	0,80 - 2,50
Number of fruits in 1 kg		3,00 - 3,50	3,50 - 4,50
Brix (%)		11,00 - 14,00	10,00 - 13,00
pH		3,50 - 3,65	3,50 - 3,70

5. GEOGRAPHICAL AREA

The delimited geographical area for the production of 'Bursa Şeftalisi' is located in the districts and villages of Bursa province listed below.

District	Villages
Gürsu	Merkez, Adaköy, Cambazlar, İğdir, Karahıdır, Kazıklı
İnegöl	Merkez, Akhisar, Akıncılar, Alanyurt, Alibey, Bilalköy, Boğazköy, Cerrah, Çavuşköy, Çeltikçi, Çitli, Deydinler, Dipsizgöl, Edebey, Eymir, Hamamlı, Hamzabey, Hasanpaşa, Hocaköy, İsaören, Karagölet, Karalar, Kınık, Kozluca, Kulaca, Kurşunlu, Küçükyenice, Ortaköy, Özlüce, Sungurpaşa, Süpürtü, Şipali, Tokuş, Yeniceköy, Yiğit
İznik	Boyalıca
Kestel	Merkez, Aksu, Barakfaki, Çataltepe, Dudaklı, Erdoğan, Gölbaşı, Gölcük, Gözede, Kozluören, Narlıdere, Serme, Seymen, Soguksu, Turanköy, Yağmurlu
Nilüfer	Merkez, Çalı, Kayapa, Tahtalı, Yaylacık
Orhangazi	Akharem, Çakırlı, Dutluca, Gedelek, Gemiç, Gölyaka, Gürle, Heceler, Keramet, Orhangazi, Sölöz, Üreğil, Yenigürle, Yenisölöz
Osmangazi	Merkez, Çağlayan, Demirtaş, Ovaakça
Yenişehir	Merkez, ,Afşar, Akdere, Alaylı, Barcın, Burcun, Cihadiye, Çamönü, Çardak, Çayırlı, Çelebi, Demirboğa, Dereköy, Ebeköy, Fethiye, Günece, Hayriye, İncirli, Karabahadır, Karacaahmet, Karacaali, Karaköy, Karasıl, Kavaklı, Koyunhisar, Kozdere, Köprülühisar, Mahmudiye, Marmaracık, Menteşe, Osmaniye, Papatya, Selimiye, Söylemiş, Subaşı, Toprakdere , Toprakocak, Yeniköy, Yolören
Yıldırım	Merkez

The harvest of the peaches must take place within the defined geographical area



6. Production Method

6.1. Authorized Varieties

The PDO 'Bursa Şeftalisi' is reserved to the "J.H. Hale" and Glohaven varieties.

6.2. Density of plantation

The plantation of peach trees shall respect a density equal or inferior to 450 trees/ha.
Orchards shall be located away of any source which could spoil the quality of the fruits.

6.3. Pollination

J.H. Hale variety is not self-fertile and must be pollinated with other varieties. In Bursa, J.H. Hale is pollinated by a non-grafted peach tree called "erekeme"; which must be planted among the J.H. Hale trees. Ten erekeme for 1 ha is sufficient for a better pollination of the J.H. Hale variety. This condition must be complied with not later than December 31st 2023.

6.4. Fertilisation

Fertilisation is based on organic and mineral fertilisation. While mineral fertilizers must be applied between February and April, manure must be applied between October and November.

It is compulsory to perform a complete soil analysis and a nitrogen balance on one of the producer's plot at least every two years.

Fertilisation will be conducted according to the needs and the objectives of the production. Every year or at least every 2 years, the orchard shall receive organic fertilizers. Organic fertilisation shall be based on manure or compost supplements and shall represent at least a yearly quantity of 10 tons/ha.
Mineral fertilisation is based on NPK fertilisers according to the soil analysis results. Over fertilisation can damage the fruit quality. It is recommended to spread out the nitrogen fertilizer at least twice a year (splitting). Fertilisation is also conducted in order to enhance organoleptic qualities of the fruit.
The following quantities are recommended:

Nitrogen (kg/tree)	Phosphorus (kg/tree)	Potassium (kg/tree)	Magnesium
0,8	0,8	0,4	0,06

Foliar fertilisation is also allowed when it is used to compensate some deficiencies detected with the foliar analysis, mainly in iron deficiencies to fight against Iron chlorosis.

6.5. Crop protection

Sustainability is important for orchard management. The crop protection should be performed in a sustainable way to enhance biodiversity, to encourage the natural predators of the pest thus decreasing the use of chemical pesticides.
Therefore, crop protection is based on prevention of pest and diseases, and the use of mechanical means and natural repellent or pesticides.
In case of severe attack of pest and diseases, chemical pesticides can be used provided that:

- the pest or disease has been identified, the attack level requires a treatment and the relevant insecticide or fungicide is identified;
- the doses are respected;
- the pesticides are not listed in the up-to-date list of prohibited pesticides issued by the Turkish Ministry of Agriculture and Forestry
- the pesticides are not listed in the WHO class 1A list (extremely hazardous), and 1B (highly hazardous) (http://www.who.int/ipcs/publications/pesticides_hazard/en/)
- the conditions of their use are respected mainly regarding the deadline before harvesting.

6.6. Soil protection

Soil shall be regularly ploughed to control weed. The use of herbicide will be definitively banned from December 31st 2023.

It is recommended to protect the soil during the production cycle implementing a vegetal cover (green manure).

6.7. Irrigation

Irrigation is allowed according to the needs of the crop. If irrigation is required, best irrigation time is between June and September.
Oversupply of water can damage the quality of the fruit (fragile fruits).
Irrigation is allowed by drip irrigation. Submersion irrigation is forbidden to save water and to prevent the leaching of the fertilizers. The producer must be compliant with this criterion by latest December 31st 2023.

6.8. Pruning

Pruning should be done every year to ensure that the tree is ventilated and healthy branches are regenerated. Pruning is done between November and April, during the rest period. It is carried out according to the method locally called "fish bone" and consists of removing the dried, damaged and diseased branches, to increase light penetrations and provide a sufficient sunlight exposure of the fruits. Pruned branches must be destroyed in to avoid any disease.

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6.9. Fruit thinning

Thinning must be carried out manually from May to June in order to remove excess fruits in a balanced manner reducing weight on heavy limbs, and helping retain the tree's natural shape.

6.10. Harvest

Under normal climatic conditions, Glohaven variety is harvested in July-August and J.H. Hale variety in August-September. Harvest time of peaches is understood from the beginning of the colouring and the degree of hardness.
Harvest shall be carried out by taking care of the fruits and shall respect the following rules:

- Harvest must be carried out during the morning and before 11 a.m.;
- Fruits are collected in clean collection containers;
- Harvester wear gloves or have a hand cleaning point at each plot; - Fruits which have been in contact with the soil must be rejected;

6.11. Sorting

A visual analysis of the characteristics of the products is carried out after the harvest. Random samples are collected to check the compliance of the product with the defined criteria of the PDO "Bursa Şeftalisi" described in the §2.2.
The fruits shall be sorted and graded either in the production area, or in the cooperative premises in a dedicated and clean area clean preventing fruits from any contamination.

6.12. Storing

Sorted peaches should be stored at +0.5 to $+1^0$ C if they are not delivered directly to the market.

6.13. Packaging

Packaging of the fruits must be carried out in the allowed packages. 'Bursa Şeftalisi' shall be packed in in cardboard or wooden trays or boxes, for final consumers. It must be packaged in a single layer and the individual peaches must be separated from each other by protective material. Any plastic packaging items use must be banned.

6.14. Delivering

In order to maximize the quality to the final consumer it is recommended to short the time length between harvesting and delivering.

7. Proof of Origin

7.1. Identification of the operators

Any operator wishing to engage in all or parts of production, storage, packaging or handling activities of the PDO 'Bursa Şeftalisi' is required to notify its activity to the PDO Producer group to be authorized to use the PDO 'Bursa Şeftalisi'. Operator's notification and authorization must occur before any production, storage, packaging, or handling activities take place.

Operators wishing to engage in the PDO ‘Bursa Şeftalisi’ shall fill in a registration form containing the following information:

For producers

- The list of the plots owned or rented by the producer and the identification of the plots used for the purpose of the PDO ‘Bursa Şeftalisi’;
- The map of the plots;
- The identification of the storage and packaging premises (number, location).

For operators involved in the handling of the product:

- The identification of the storage and packaging premises (number, location).

For traders

- The identification of the storage and packaging premises (number, location) as well as the location of the sales points; All the operators should:
- Provide their name and address;
- Sign an agreement stating that they are committed to: respect the current Code of Practice, allow the control of their plot, or/and their premises, or/and their documentation; and that in case of discrepancy they are committed to accept the sanctions decided by the PDO Producer group;
- The agreement shall also indicate that the operator agrees on paying all the fees involved by the PDO producer group membership;
- The agreement shall executed in two copies, each for either Party. (one for the operator, and one for the PDO producer group).

7.2.Proof of Origin

Operators involved in the activities of production, storage and packaging, shall maintain stocks and transactions records of all the inputs and outputs related to the PDO ’Bursa Şeftalisi‘. Those records must be available for the control body. Every year, operators should declare the volume commercialised under PDO ’Bursa Şeftalisi‘ including the difference between the estimated harvests, the quantity harvested, and the quantity certified to the PDO Producer group.

The following registers must be held during the production season and kept at least for 1 year after the harvest season:

-register of spraying mentioning: date, plot, doses, and product used

-register of fertilizers mentioning: date, plot, quantity, and fertilizer used

-register of soil management: date, plot, and operation (ploughing, weed control, crashing the branches, etc.). At harvest stage, peach crates are clearly identified with the lot number. Producers are in charge of recording traceability information related to plots to ensure the link with the batch numbers.

At the sorting and packaging stage, the work is organised by batch and must be done in the production area. A statement of sales of PDO ‘Bursa Şeftalisi’ is made for each batch. The batch number is indicated on the receipt of delivery and on the invoice.

All the PDO ‘Bursa Şeftalisi’ must be packed, stored and sold in the defined package

A traceability system is developed based on a code number or on a digital code. The system shall allow to trace each batch of PDO ’Bursa Şeftalisi‘ products from producer to the final consumer of the PDO ’Bursa Şeftalisi‘.

8. Causal link

8. 1. Product specificities

J.H. Hale is a medium-sized, pubescent, firm, sweet, juicy peach, whose stone can be easily and completely separated from the flesh, with yellow skin blushed with red and yellow flesh.

Glohaven is a medium-sized, slightly pubescent, medium firm, sweet, juicy peach, whose stone can be separated from the flesh, with yellow skin blushed with light red and yellow flesh.

‘Bursa Şeftalisi’ that are famous for their taste are generally old varieties, some of which are still produced today. Two varieties that are among the old ones, that have been produced in Bursa for a long time, that have very well adapted to the conditions of the city and that differ from the peach varieties grown in other regions in terms of taste, physical and chemical properties are J.H. Hale and Glohaven.

The type of main soil group in the Marmara, Aegean and Mediterranean Regions that have high peach production creates an ideal environment for peach cultivation. Although soil condition is suitable for peach cultivation in these 3 regions, there are also some differences between them. Accordingly, all these regions possess alluvial soil, however the Aegean Region has reddish Mediterranean soil and the Mediterranean region has a sandy and stony structure. In Bursa, the ratio of alluvial soil is significantly higher as compared to other cities that have peach production. The ratio of alluvial soil in Bursa is 11,6%, whereas in Çanakkale, which has the same harvest season as Bursa and produces the same varieties, this figure is 6,51%. Bursa has a transition climate. Therefore, many agricultural products can be easily cultivated in this province. The mentioned transition climate possesses certain characteristics of both the Mediterranean and Black Sea climates and has a special climate corridor. Average annual temperature and relative humidity are 14,6 0C and 68,4%, respectively. Average annual rainfall is 707,5 mm.

Wind is an important factor that affects peach quality. Coast, lake and mountain environment creates suitable conditions for peach cultivation. Northeast (NE), Southeast (SE) and East-Northeast (ENE) winds in Bursa are the prevailing wind directions in the areas that have high-quality production. Strong winds cause leaves to fall, fruits to get damaged, shape deformation in harvested products and obtaining fruits smaller than normal. Wind also increases the damage by frost that results in significant quality and production losses in peach production. Windy and rainy weather conditions especially during the blooming season results in weak fruit formation as they negatively affect factors that enable pollination (bees etc.). Wind also affects the water consumption and irrigation efficiency of trees. Another important effect of wind is that it facilitates spreading of diseases. One of the important causes of disease, i.e. fungal spores are transported with the wind. The recommended maximum wind speed in the production area for high-quality and healthy peach cultivation is 10 mph and lower. If the wind speed exceeds 10 mph, events such as shedding of flowers, frost and disruption of irrigation efficiency can be encountered. Bursa differs from other provinces in terms of soil structure and general climatic conditions, and especially wind speed. When Bursa is compared to other provinces, the peach cultivation area, i.e. Bursa Plain has a milder wind with the effect of Uludağ. The wind speed in Bursa is lower than 10 mph, whereas it is higher than 10 mph in other provinces that have peach production.

The soil and climate structure specific to Bursa provide the unique sensory, physical and chemical properties of J.H. Hale and Glohaven varieties grown in Bursa. The pH level (between 6 – 7), alluvial soil structure (strainer, clayey, sandy, pebbly, deep and rapidly warmed) and mineral content (especially nitrogen) of Bursa province affect the growth of trees which has impact on the size and colour of J.H Hale and Glohaven variety peaches. The average annual precipitation in Bursa is 707.5 mm, especially pre-harvest precipitation is important in terms of seed formation and adhesion of the seed to the fruit. Production practices of Bursa producers have effects on peach quality. Pruning is carried out according to the method locally called “fish bone” and consists of removing the dried, damaged and diseased branches, to increase light penetrations and provide a sufficient sunlight exposure of the fruits. Fish bone shape pruning effects the colour of peaches together with the effect of soil. Rarefication is made by hand and this application provides medium size fruit formation. Fertilization practices of producers cause the production of sweet and juicy fruits. The use of Erekeme in pollination makes it easier to separate the peaches from their seeds.

8.2. Reputation

Peach (Prunus persica L.) is a temperate climate fruit with a hard stone. The reputation of ‘Bursa Şeftalisi’ dates back to very old times. In a study, records dating back to 1848 and 1881 were found in the Ottoman archives. The mentioned records indicate that ‘Bursa Şeftalisi’ was famous for its taste and it was sent to the family members and to the palace as a gift. In the studies related to the history of Bursa, it is frequently mentioned that peach production is common in Bursa and that Bursa had been the only peach exporter in Türkiye for long time. Peach is a product that identifies with Bursa. According to the sources on this subject, the climate in Bursa creates a suitable environment for peach production. J.H. Hale variety, which is very well adapted to Bursa, has been widely produced especially since 1934. The reputation of ‘Bursa Şeftalisi’ is not limited to Türkiye as it is also mentioned in some international books and columns.

In the past, peach was only produced and traded in Bursa, whereas today it is produced in many cities throughout Türkiye.

9. Specific rules of labelling

In addition to the regulatory information requirements applicable to peaches, the label for the peach shall:

- Bear the name 'Bursa Şeftalisi' on all the packages in a font size and at least as big as the biggest other letters on the label;
- Indicate the mention "Protected Designation of origin" close to the name 'Bursa Şeftalisi'; - Indicate the lot number

In addition, the official PDO logo and the 'Bursa Şeftalisi' logo shall be used on the packaging of the PDO 'Bursa Şeftalisi' products.



10. Control Body

In accordance with the provisions of Article 23 paragraph 2 of the Food Codex Chapter of the law on Veterinary Services, Plant Health, Food and Feed No 5996, the Ministry of Food, Agriculture is authorized to carry out controls to verify the compliance with the specifications of agricultural products which are Protected Designation of Origin.

The Ministry of Agriculture and Forestry
General Directorate of Food and Control (Gıda ve Kontrol Genel Müdürlüğü)
Eskişehir Yolu 9. Km. Lodumlu/ANKARA-
Türkiye Tel: (+90)-312- 258 76 10

10.1.Tasting Committee

A relevant tasting committee shall annually verify a sample of the products.
Bursa Central Research Institute of Food and Feed Control
(Gıda ve Yem Kontrol Merkez Araştırma Enstitüsü Müdürlüğü)
Address : 1. Hürriyet Caddesi, No: 126 Hürriyet - PK:3 16036 Osmangazi / BURSA TÜRKİYE
Telephone : +90 224 246 47 20
Fax : +90 224 246 19 41
E-mail : bursagida@tarim.gov.tr

10.2 Control System

In accordance with the law No 6769/2016 and its Implementing Regulation, the control body is in charge of the certification of the PDO 'Bursa Şeftalisi'.

The certification is delivered to S.S. Bursa Tarım Kooperatifleri Merkez Birliği. Operators are required to fill in a registration form which contains specific information related to their activities and their agreement to respect the Code of Practices requirements.

The certification decision will be taken after the verification by the control body of the producer group ability to carry out its tasks, including internal verification of operators. Spot check verifications will additionally be carried out by the control body at the operators' level to cross-check the findings.

Based on the certification decision, the control body issue a certificate divided in two parts: one part corresponds to the certification decision regarding the producer group while the other part defines the scope of certification which corresponds to the list of products.
The producers are periodically inspected to maintain the certification. In case the producer group does not accomplished its tasks/mission, the control body can suspend or withdraw its certification. The Turkish Patent and Trademark Office will immediately be informed of this decision. This will lead to suspension of commercialisation of any product using the PDO.
In case producers do not respect the requirements of the Code of Practices, a non-compliance will be observed by the control body. This observance will lead to different sanction depending on the severity of the non-compliance. The non-compliances observed and the associated sanctions of the external control are provided and shared with the producer group.

The table below lists the main production steps of the 'Bursa Şeftalisi' and all the requirements that must be controlled:

Production step	**Operator**	**Control Point**
Orchards	Producers	- Localisation of the orchards in the PDO area - Variety - Density of plantation
Agricultural Practices	Producers	- Fertilisation - Crop protection - Harvest
Sorting	Producers / Warehousemen / /Trader	- Sorting modalities
Storage	Warehousemen / / trader/ packers	- Storage conditions
Packaging	Packers	- Packaging properties
Labelling	Packers/Traders	- Label use
Product characteristics	Packers	- Organoleptic characteristics - Physical and chemical characteristic
General compliance	All operators	- Operators recognition by the producer group - Agreement

Annex 1 : Traceability documents:

Activity	**Check point**	**Required document**
Authorisation to be part of the Bursa Şeftalisi GI sector	Producer PDO Producer group	Registration document Agreement
Fruit production	Producer Plot Agronomic practices	Cultivation register
Harvest	Harvest date Variety Plots Agronomic practices = batch number	Cultivation register Stock register Receipt of delivery

Storage	Batch number of the delivery / on the intermediary product	Stock register Receipt of delivery
Packaging	Batch number on the final product Detail information of the marketer	Labelling Sales and Purchase register Receipt of delivery
Storage	Middleman or retailer	Sales and Purchase register Receipt of delivery
Sales	Trader	Sales and Purchase register Receipt of delivery