

BOOK OF SPECIFICATION

Bursa Şeftalisi

Protected Geographical Indication (PDO)

DEFINITIONS

‘Accreditation’: means an attestation by a national accreditation body that a control body meets the requirements set by harmonised standards and, where applicable, any additional requirements including those set out in relevant sectoral schemes, to carry out a specific conformity assessment activity.

‘Batch’: one batch of “Bursa peach” is defined as the daily harvested or processed quantity per operator.

‘Contamination’: fresh fruit can be consumed with its skin by the consumer. Food safety must prevent any chemical, physical and microbiological contamination.

‘Control’: control shall cover the inspection process and the certification decision.

‘Control body’: means an independent third party responsible of the control of the PDO Code of Practices.

‘Right Owner’: represents the applicant who have a role in the registration, promotion and defence of the PDO.

‘Major non-compliance’: means a non-compliance which, can jeopardize the reputation of the PDO. This includes the following sanctions: temporary exclusion and definitive exclusion.

‘National accreditation body’: means the sole body in a Member State that performs accreditation with authority derived from the State.

‘Operator’: means the producers, processors, warehouseman, packers, traders who are allowed to use the PDO name.

‘Technical and scientific file’: attached document gathering all technical and scientific studies supporting the PDO.

ABBREVIATION

CoP: Code of Practices

CB: Control Body

AB: Accreditation Body

PDO: Protected Geographical Indication

COMPETENT AUTHORITY

The Ministry of Food, Agriculture and Livestock

General Directorate of Food and Control

Gıda ve Kontrol Genel Müdürlüğü

Eskişehir Yolu 9. Km. Lodumlu/ANKARA- Turkey

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APPLICANT

Producer Group

S.S. Bursa Bölgesi Tarım Kooperatifleri Birliği

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Composition: producers, cooperative, warehouseman, packer

1. NAME OF THE PRODUCT

“Bursa Şeftalisi” (in English its translation “Bursa Peach” or “Peach from Bursa”).

2. DESCRIPTION OF THE PRODUCT

2.1. Type of product

Processed and non-processed fruits, vegetables and mushrooms

2.2. Description of product

Bursa peach are grown from two local peach varieties: the “J.H. Hale” and “Glohaven” varieties. They grow in the Bursa province and is consumed as a fresh product.

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.

When released for consumption and marketed under PDO, the peaches must satisfy the following physical, chemical and organoleptic criteria:

Physical Values	J.H. Hale	Glohaven
Skin L	60,00 - 70,00	45,00 - 65,00
Skin a	20,00 - 30,00	30,00 - 40,00
Skin b	40,00 - 50,00	25,00 - 45,00
Flesh L	70,00 - 80,00	75,00 - 80,00
Flesh a	10,00 - 20,00	14,50 - 20,50
Flesh 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

Chemical Values	J.H. Hale	Glohaven
Brix (%)	11,00 - 14,00	10,00 - 13,00
pH	3,50 - 3,65	3,50 - 3,70

Bursa peaches are juicy, aromatic and have an intense scent. Bursa peach is characterized by a high sugar content as well as a pronounced acidity as shown in the table above. They must also be free of any foreign smell or flavour that spoils the expected quality of the peaches. The responsibility to select the compliant fruits with the above organoleptic profile lies with the producer.

Minimum scores that need to be achieved by J.H. Hale and Glohaven varieties grown in Bursa according to the 5-point hedonic scale in the sensorial evaluation;

Sensorial Evaluation	J.H. Hale	Glohaven	(0) weak → (5) powerful
			Description
Skin Colour	3,50	3,50	Light → dark
Flesh Colour	4,00	3,50	Light → dark
Separation of kernel	4,50	4,00	Hard → easy
Colour of kernel gap	4,50	3,50	White → red
Separation of Skin	3,00	2,50	Hard → easy
Smell	4,00	3,50	Odourless → Intense peach odour
Taste	4,00	3,50	Not sweet → very sweet
Floury	4,00	3,00	Floury → not floury
Firmness	3,50	3,50	Soft → hard
Juiciness	4,00	4,00	Dry and fibrous → Juicy
Aroma	4,00	3,50	Very low → very intense

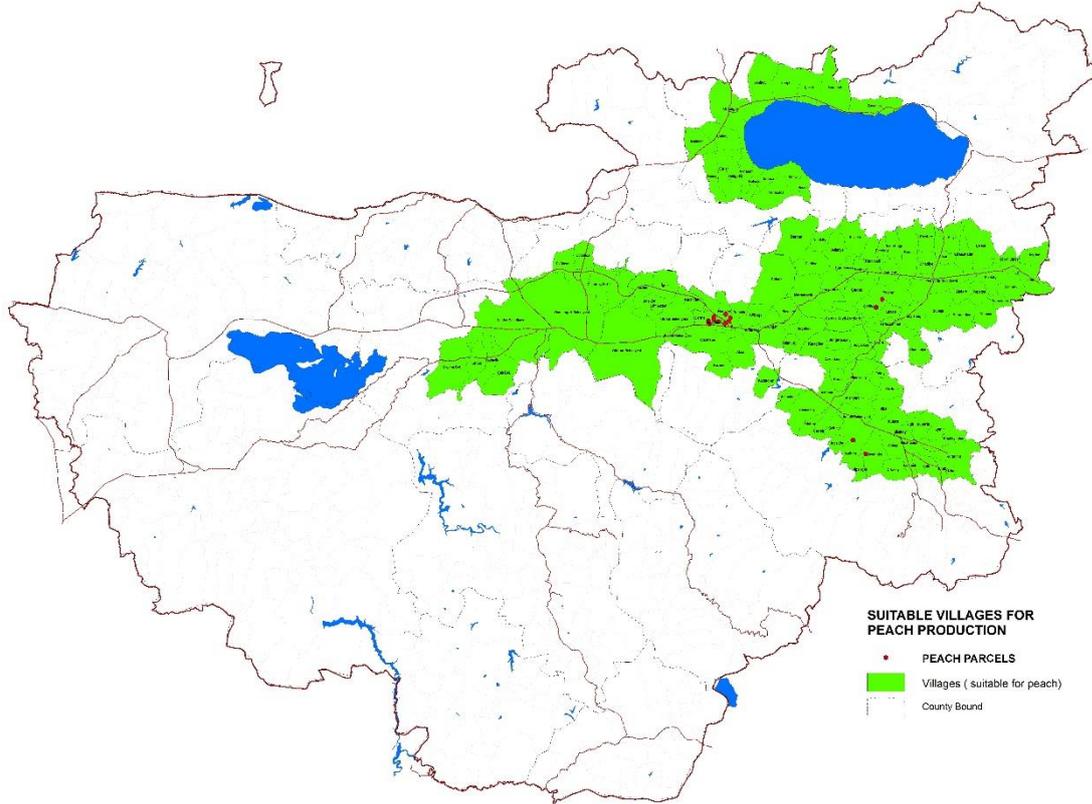
3. GEOGRAPHICAL AREA

The delimited geographical area for the production of Bursa peach is located in the districts and villages 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	Boyalca
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, Çayırılı, Çelebi, Demirboğa, Dereköy, Ebeköy, Fethiye, Günece, Hayriye, İncirli, Karabahadır, Karacaahmet, Karacaali, Karaköy, Karasil, 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



This delimited area has been defined according to the human and physical factors, described in the technical file.

4. DESCRIPTION OF THE PRODUCTION METHOD OF THE PRODUCT

4.1. Authorized varieties

The PDO “Bursa peach” is reserved to the “J.H. Hale” and Glohaven varieties.

4.2. 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.

4.3. 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.

4.4. 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.

4.5. 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 Food, Agriculture and Livestock (İmalat, İthalat Ve Kullanımı Sonlandırılan Yasaklı Aktif Madde Listesi)
- 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.

4.6. 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).

4.7. 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.

4.8. 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.

4.9. 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.

4.10. 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;

4.11. 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 peach" 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.

4.12. Storing

Sorted peaches should be stored at +0.5 to +1⁰ C if they are not delivered directly to the market.

4.13. Packaging

Packaging of the fruits must be carried out in the allowed packages. Bursa peach 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. Annually, the PDO Right Owner sets up a list of the design items (net cover, bandeau lateral, front label...) accompanying the package.

4.14. Delivering

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

5. EVIDENCE PROVING THAT THE PRODUCT COMES FROM THE GEOGRAPHICAL AREA

5.1. Identification of the operators

Any operator wishing to engage in all or parts of production, storage, packaging or handling activities of the PDO “Bursa peach” is required to notify its activity to the PDO Right Owner to be authorized to use the PDO “Bursa peach”. 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 peach 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 peach;
- 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 Right Owner;
- The agreement shall also indicate that the operator agrees on paying all the fees involved by the GI Right Owner membership;
- The agreement shall be executed in two copies, each for either Party. (one for the operator, and one for the PDO Right Owner).

5.2. Record keeping and reporting obligations

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 peach”. Those records must be available for the control body. Every year, operators should declare the volume commercialised under PDO “Bursa peach” including the difference between the estimated harvests, the quantity harvested, and the quantity certified to the PDO Right Owner.

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 peach is made for each batch. The batch number is indicated on the receipt of delivery and on the invoice.

All the PDO Bursa peach must be packed, stored and sold in the defined package (see §5.10).

5.3.Traceability

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 peach” products from producer to the final consumer of the PDO “Bursa peach”.

5.4. 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 peaches 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.

5.5. Causal link

Peach (*Prunus persica* L.) is a temperate climate fruit with a hard stone. The reputation of Bursa peach 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 peach 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 Turkey 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 peach is not limited to Turkey 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 Turkey. 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 °C 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.

6. SPECIFIC ELEMENTS OF LABELLING

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

- Bear the name “Bursa peach” 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 Denomination of origin” close to the name “Bursa peach”;
- Indicate the lot number

In addition, the official PDO logo and the Bursa peach logo shall be used on the packaging of the PDO “Bursa peach” products.





7. REFERENCE TO THE CONTROL BODY

In accordance with the provisions of Article 49 of the Turkish law n°6769/2016 and Articles 44 to 46 of the Implementing Regulation, the inspection of the respect of the Code of Practices is assured by a control body (CB).

Article 23 paragraph 2 of the Food Codex Chapter of the law on Veterinary Services, Plant Health, Food and Feed No 5996, authorised the Ministry of Food, Agriculture and Livestock to carry out controls, as a control body to verify the compliance with the specifications of agricultural products which are Protected Designation of Origin.

The Ministry of Food, Agriculture and Livestock

General Directorate of Food and Control

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For the control of PDO “Bursa peach”, controls carried out by the Ministry are reinforced by controls carried out by a private and independent third-party describe in §8.1. A tasting committee is also designated to verify the organoleptic quality of PDO products.

7.1. Control body

The inspection and certification of the Bursa peach Code of Practices is assured by a private and independent third-party.

7.2. Tasting Committee

A relevant tasting committee shall annually verify a sample of the products provided by the Control Body when the latest is carrying out its inspection. The tasting committee will be set up by the Right Owner, it can be internal or with external entities.

Reference of the Tasting Committee

Bursa Central Research Institute of Food and Feed Control

(Gıda ve Yem Kontrol Merkez Araştırma Enstitüsü Müdürlüğü)

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8. 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 peach”.

The certification is delivered to S.S. Bursa Tarım Kooperatifleri Merkez Birliği. Operator’s authorization requires 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 right owner 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 right owner while the other part defines the scope of certification which corresponds to the list of products.

The right owner is periodically inspected to maintain the certification. In case the right owner does not accomplished its tasks/mission, the control body can suspend or withdraw its certification. The Turkish Patent and Trademark Institute 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 right owner.

The table below lists the main production steps of the Bursa peach 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 right owner - Agreement

Annex 1 : Traceability documents:

Activity	Check point	Required document
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Authorisation to be part of the Bursa peach GI sector	Producer PDO Right owner	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