INTELLECTUAL OUTPUT O2

State of the Art (SoA) of Olive Oil Production

Date: 11th MARCH 2020





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Note: Intellectual Output Description

Trade and infrastructure optimization are the driving forces of an improved food and grain security. Consequently, optimization of extra virgin olive oil production and improvement in storage capacities and improvement of logistic systems are some of the factors which contribute to the improvement of the product. All the above could lead to improved productivity resulting to support to small farms and reduction of losses in quality.

Additionally, a mapping on infrastructure and needs will take place. However real value will be added to the quality of the analysis by its transnational dimension, with a continuous cooperation through meetings-teleconferences which will take place among partners in order to gather and update the available data from all member countries (Greece, Italy and Turkey) and share experience and information in order to produce a coherent study/ analysis which will be the core element for the success of the following intellectual outputs of the project. The deliverables of this output will be publications to promote the project and create public awareness about supply chain management in agri-food industry.

Languages: English, Greek, Italian, Turkish Media: Publication: The Output will be presented as a "Book" Start Date: (dd-mm-yyyy) 04-11-2019 End Date: (dd-mm-yyyy) 30-10-2020 Version: 1.3

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Methodology

The Output type is Study / analysis - Data collection / analysis. Data will be collected for each participating country from official sources (e.g. Statistical Authorities, IACS etc.). Data sets should be referred to at least five (5) years.

Copartners will contribute mainly in content No 3, 4, 5, 6, 7 and 8. It would be very useful to collect data related to different cultivated varieties and present a mapping (distribution) in each country. Official links to competent authorities presenting data, which are updated regularly are useful to include them. Output will be "self-updated".

Official data only should be used, from resources such as IACS, Eurostat, National Authorities etc.

A lot of official information could be found also in EU Publications. In case written permission required for data acquisition, please consider to obtain it. Do not use data without permission and do not obtain data unofficially. Always make an appropriate reference to the source of your information, even if it is not official.

For administrative and technical purposes try to collect the information referring to the contents previously described. In case there are additional information, inform the Beneficiary and the Leading Organisation for this Output before preparing the material. It is important all partners to have the same format. As understood from the kick off meeting, it was made clear that data could not be presented in a uniform way for the involved countries, due to major differences in data collection by national agencies for such a common for Mediterranean area product. However major efforts were made to collect the available data and present it with a comparative manner.

ு Greece

The production of olive oil in Greece is located on a large number of small farms distributed across the country. Greece due to its extensive shoreline of 15.021 km has a major advantage in olive tree cultivation. The production is located in three (3) main geographical areas:

Peloponnese: Mainly the mountainous areas are the most productive from the qualitative point of view. Mount Taigetos, the area of Lakonia and Messinia is one of the most well-known, with the variety of "Koroneiki" as the most popular. "Manaki" variety is another major variety.

Crete" It is the most famous island for the production of olive oil. There are 9 PDO regions for the island of Crete. "Koroneiki" variety is the major variety also in this area. However, some there are some local varieties, such as "Tsounati", "Throumbalia", "Hondrolia", and other minor varieties are characteristic for the area.

Olive Oil Production

In Greece are cultivated 120 million producing olive trees according to GREEK ASSOCIATION OF INDUSTRIES AND PROCESSORS OF OLIVE OIL (SEVITEL). The production of olive oil is approximately 350,000 tons on an annual basis, corresponds to 16% of world production, where 70% of all production is Extra Virgin Olive Oil. On a global market basis, Greece holds 3rd place among olive oil producing companies. Per capita consumption is the highest in the world approximately 16 kilos annually. Greece is the world's largest exporter of Extra Virgin Olive Oil. Greece is the largest producer of Extra Virgin Olive Oil worldwide: 80% of its production is Extra Virgin olive oil, amounts to 1.4 billion Euros (Source: SEVITEL).

The main areas of production are: Peloponnese 35%, Crete 30%, Lesvos island 5% and Ionian Islands 5%

The main varieties of olive oil are: Koroneiki, Athinoelia, Ladoelia, Kalamata's olive, Amfiss's olive, Chalkidiki's olive, Manaki. The Classification is as follows:

- Extra virgin olive oil: perfect balanced in terms of flavour, aroma, acidity less than 0,8g per 100g
- Virgin olive oil: acidity between 0,9g and 2g per 100g
- Olive oil (pure): refined olive oil and virgin olive oil
- Olive pomace oil: refined olive pomace oil and virgin olive oil, suitable high-heat cooking
- Lampante olive oil: acidity more than 2 g per 100g, forbidden consumption unless been refined
- Different mixes with other kinds of oils such as sunflower oil

Olive oil & Greece

The first worldwide cultivation of the olive tree had been placed in Crete, in 3500 BC. For many centuries, the olive tree was though as a symbol of peace and friendship. According to mythology,

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Athena, goddess of wisdom, offered the olive tree to citizens of Athens. In ancient Olympic Games, an olive-tree branch was given to winners as award.

Protected Designation of Origin (PDO)

1. Apokoronas Hanion Kritis

2. Archanes Iraklio Kritis

3. Selino Kritis

4. Trizinia

- 5. Finiki lakonias
- 6. Thrapsana
- 7. Kalamata
- 8. Kolymvari Hanion **Kritis**
- 9. Kranidi Argolidas
- 10. Krokees Lakonias
- 11. Lygourio Asklipiou
- 12. Petrina Lakonias
- 13. Peza Iraklio Kritis
- 14. Sitia Lasithi Kritis
- 15. Viannos Iraklio Kritis

16. Vorios Mylopotamos **Rethymnis Kritis**

Source: oliveoilmarket.eu

Health benefits

- protects against diseases such as diabetes, cancer
- improves cognitive development

import quantity fluctuated substantially in recent years, it tended to increase through 1968 - 2017 period ending at 4,196 tonnes in 2017



According to Knoema.com import quantity fluctuated substantially in recent years, it tended to increase through 1968 - 2017 period ending at 4,196 tonnes in 2017. Original data was derived by FAO (http://faostat3.fao.org/download/T/*/E)

According to Knoema.com export quantity fluctuated substantially in recent years, it tended to increase through 1968 - 2017 period ending at 25,846 tonnes in 2017. Original data was derived by FAO http://faostat3.fao.org/download/T/*/E

From the value point of view, it seems that there is a constant trend the last ten (10) years for export value, slightly increasing (Knoema.com). Original data was derived by FAO http://faostat3.fao.org/download/T/*/E

Table olive figures

- Kalamatas
- Conservolia
- Tsakistes (cracked)
- Wrinkled black olives





Olive and Table Olive in Turkey

Olive production in Turkey

The value and unique characteristics olives as well as olive oil have been appreciated for centuries not only for their nutritional quality but also for their health benefits. The olive has been a symbol of Mediterranean civilization throughout history. As being a part of the culture, olive and olive oil have economic and social importance for producing countries. According to the latest statistical data, the important olive producing countries are determined as Spain, Italy, Morocco, Turkey and Greece (FAOstat, 2019).

Turkey is the 4th country in terms of volume of olive trees. There are approximately 131.263.255 fructiferous trees and 32.381.751 fruitless trees contributing 163.645.006 total olive trees (www.tariszeytinyagi.com). It has been stated that %76 of the trees are in Aegean, %14 of the trees are in Mediterranean, and %9.5 of the trees are found in Marmara regions. On the other hand, the number of olive trees increased from 100 million (the beginning of 2000s) to 2017/18 seasons (174 million pieces) with new plantings techniques. Furthermore, the support of government plays also a positive role on olive tree populations in Turkey (www.anatoliaoliveoil.com).

As one of main olive producing countries, Turkey produces 150.046.7 tons of olive (FAOtat, 2019). Therefore, olive is a very important horticultural product for Turkey's economy. According to TURKSTAT data (2006), among the selected important products, which comprises 74.5% of the bulk fruit areas, citrus fruit (24.1%), olives (13.9%) and apples (12.4%) constitute 50.4% of the total fruit production. Aegean (53%), Marmara (18%), Mediterranean (23%) and Southeastern Anatolia Regions (6%) are important olive-producing regions. 0.2 % of olive production is the Black Sea Region. In terms of provinces, olive production is performed in 41 of Turkey's 81 provinces. However, Aydın, İzmir, Mugla, Balıkesir, Bursa, Manisa, Çanakkale, Gaziantep and Mersin are leading provinces of olive production.

Table olive production in Turkey

As presented in Table 1, the important table olive producers are the EU, Turkey, Egypt, Algeria, Morocco and Syria. Spain takes the first place among EU countries, followed by Greece and Italy. Turkey has produced approximately 450.000 ton of table olives over the last crop year (Table 1).

Turkey has a very rich heritage of native olive varieties and Turkey's olive growing areas are concentrated around the regions of the Aegean, Marmara and southeast Anatolia. Considering table olive production, Edremit (Ayvalık) is the predominant variety in the north of Turkey's olive growing area while Memecik is the south of Turkey's predominant variety. On the other hand, the Gemlik variety is largely produced as black table olives (Fig. 1). Among different Turkish table olive varieties, the most preferred ones for cultivating are Marmara style (Gemlik), North Aegean style (Ayvalık), South Aegean style (Memecik, Domat, Uslu, Erkence), Mediterranean style (Silifke) and Southeast Anatolian style (Nizip) (Fig. 1).

| Countries | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
|-----------|---------|---------|---------|---------|
| EU | 860.0 | 886.5 | 842.0 | 901.0 |
| Turkey | 390.0 | 397.0 | 400.5 | 450.0 |
| Egypt | 450.5 | 335.5 | 550.0 | 500.0 |
| Algeria | 233.5 | 233.0 | 293.0 | 234.0 |
| Morocco | 100.0 | 120.0 | 110.0 | 120.0 |
| Syria | 75.0 | 150.0 | 190.0 | 100.0 |
| Argentine | 120.0 | 50.0 | 95.0 | 105.0 |
| Other | 344.0 | 370.0 | 406.0 | 422.0 |
| Total | 2573.0 | 2650.0 | 2874.0 | 2954.0 |

| Table 1 | World table | olive producing | g countries | (thousand | tones). |
|---------|-------------|-----------------|-------------|-----------|---------|
| | | | | ` | |



Figure 1. Distribution of olive varieties according to regions in Turkey a: Marmara region, b: Medireannean region, c: Aegean region and d: Southeast region (Efe et al., 2016).

Table olive export in Turkey

Turkey does not import table olive while exports approximately 63,5-80 thousand tons of table olive (Anonymous, 2018). Turkey table olive production, consumption and export amounts are given in Table 2. Table 3 shows Turkey table olive export amounts and values. Turkey has a bigger table olive production ratio compared to olive oil. Traditionally table olive are consumed mostly at breakfast (Ozdemir et al 2018).

Table olive enterprises are generally family farms and have a small-scale capacity. About 320 thousand family business is producing olive and 14% of them consist of Tariş Olive & Olive Oil Association and Marmarabirlik partners. Furthermore, Tariş Olive and Olive Oil Association have approximately 22 thousand partners and Marmarabirlik has approximately 30 thousand partners.

| 12 | | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
|----|-------------|---------|---------|---------|---------|---------|
| | Production | 430 | 390 | 397.0 | 433.0 | 450.0 |
| | Consumption | 355 | 330 | 327,5 | 350.0 | 380.0 |
| | Export | 70.5 | 63.5 | 73 | 80.0 | 80.0 |

Table 2. Turkey table olive production, consumption and export amounts (Thousand tones)

(Anonymous, 2018).

Table 3. Turkey table olive export amounts and values

| Years Green olive | | Black olive | | Total | | | |
|-------------------|------------|-------------|------------|-------------|------------|-------------|--|
| | Amounts | Value (\$) | Amounts | Value (\$) | Amounts | Value (Č) | |
| | (kg) | value (ş) | (kg) | value (ş) | (kg) | value (ş) | |
| 2012/13 | 15.145.801 | 28.813.772 | 61.901.474 | 101.807.517 | 77.047.275 | 130.621.289 | |
| 2013/14 | 15.021.413 | 29.878.904 | 62.815.281 | 104.956.215 | 77.836.694 | 134.835.119 | |
| 2014/15 | 13.940.820 | 26.997.349 | 55.227.299 | 97.627.749 | 69.168.119 | 124.625.098 | |
| 2015/16 | 11.341.655 | 23.740.357 | 46.261.527 | 93.522.827 | 57.603.182 | 117.263.184 | |
| 2016/17 | 10.537.225 | 20.040.140 | 48.416.560 | 92.257.402 | 59.009.071 | 112.441.800 | |
| 2017/18 | 13.107.277 | 23.001.407 | 54.825.489 | 104.378.246 | 67.932.766 | 127.379.654 | |

Olive Oil in Turkey

In recent years, there has been an increasing interest in the consumption of olive oil because of greater knowledge of Mediterranean foods and awareness about the healthy advantages of a Mediterranean diet, and particularly olive oil. However, considering all the vegetable oils, it has been reported that the consumption of olive oil (3.7% of all the vegetable oils) is negligible outside the Mediterranean region (Grigg, 2001). Although, consumption of olive oil was restricted to the Mediterranean area (mainly in Spain, Greece, and Italy), the elevated levels of consumption have been observed in non-producing countries or emerging markets (especially USA, Canada, Australia, China, Japan, Argentina, Brazil, Chile, and Mexico) because of the positive image of olive oil (Ballco et al., 2015) (Table 4). In Turkey, 71.67% of the total produced olives are processed as table olive while the remaining part of olives (28.33%) is processed as olive oils (Gurbuz, 2017). Annual consumption of olive oil per capita in Turkey the amount is 1.5 liters and this rate is around 9 liters on average in other member countries of International Olive Council (Anonymus, 2018).

Although the share of EU countries in production varies by year, EU is the leading producer accounting for 67% of worldwide production, consumer and exporter of olive oil. Spain takes the first place among olive oil producer countries in the world, followed by Italy and Greece. Turkey, Tunisia and Morocco are other important olive oil producer countries (Table 5). In Turkey, recently olive oil production increased production capacity with notable developments in production techniques.

| Countries | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
|-----------|---------|---------|---------|---------|
| EU | 1604.5 | 1660.0 | 1413.5 | 1546.5 |
| USA | 295.0 | 321.0 | 3125.0 | 312.5 |
| Turkey | 125.0 | 116.0 | 150.0 | 176.5 |
| Syria | 126.0 | 104.0 | 98.0 | 87.0 |
| Morocco | 120.0 | 120.0 | 120.0 | 120.0 |
| Brazil | 66.5 | 50.0 | 59.5 | 75.0 |
| Australia | 37.0 | 42.0 | 45.0 | 46.0 |
| Tunisia | 30.0 | 35.0 | 21.0 | 33.0 |
| Other | 512.6 | 531.5 | 516.5 | 565.0 |
| Total | 2916.6 | 2979.5 | 2738.5 | 2961.5 |

Table 4. Olive oil consumption according to years in the world (Thousand tones)

| Olive oil production | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
|-----------------------------|---------|---------|---------|---------|
| EU countries | 1434.5 | 2324.0 | 2752.0 | 2183.0 |
| Spain | 842.2 | 1403.3 | 1290.6 | 1256.2 |
| Italy | 222 | 474.6 | 182.6 | 428.9 |
| Greece | 300 | 320.0 | 195.0 | 346.0 |
| Portugal | 61.0 | 109.1 | 69.4 | 134.8 |
| Other International Olive | 8555.5 | 668.0 | 649.5 | 950.0 |
| Council member countries | | | | |
| Tunisia | 340.0 | 140.0 | 100.0 | 280.0 |
| Turkey | 160.0 | 150.0 | 178.0 | 263.0 |
| Morocco | 120.0 | 130.0 | 110.0 | 140.0 |
| Algeria | 69.5 | 82.0 | 63.0 | 82.5 |
| Argentina | 30.0 | 24.0 | 24.0 | 43.5 |
| Jordan | 23.0 | 29.5 | 20.0 | 20.5 |
| Palestine | 24.5 | 21.0 | 19.5 | 19.0 |
| Non- member countries of | 168.0 | 184.5 | 189.5 | 181.5 |
| International Olive Council | | | | |
| Total | 2458.0 | 3176.5 | 2561.0 | 3314.5 |

Table 5. World olive oil producing countries (Thousand tones)

Figure 2 and Table 6 indicates the distribution of olives according to the producing purposes. In Turkey, 53% of olive oil production is performed in the Aegean Region.



Figure 2. The distribution of olives according to the producing purposes as table olive, olive oil or combine in Turkey (Anonymous 2016b).

| Table 6. | Amount of | f grown | olive | fruit for | table | olive | and | olive | oil | production | and | produced | olive |
|-----------|------------|---------|-------|-----------|-------|-------|-----|-------|-----|------------|-----|----------|-------|
| oil in Tu | rkey (Thou | sand to | nes). | | | | | | | | | | |

| Harvest seasons | | | | | |
|-----------------|-----------------------------|--|---|---|--|
| 13/14 | 14/15 | 15/16 | 16/17 | 17/18 | |
| | | | | | |
| 1286 | 1330 | 1300 | 1300 | 1640 | |
| 390 | 438 | 400 | 430 | 460 | |
| 160 | 190 | 175 | 175 | 263 | |
| | 13/14 1286 390 160 | Harv 13/14 14/15 1286 1330 390 438 160 190 | Harvest seasor 13/14 14/15 15/16 1286 1330 1300 390 438 400 160 190 175 | Harvest seasons13/1414/1515/1616/171286133013001300390438400430160190175175 | |

Olive Oil Historical Data

The olive has been a symbol of Mediterranean civilization throughout history and has been long established in Turkey. In fact, south-east Anatolia is known to be the cradle and gene center of the olive with a claim that is corroborated by subspecies of olive found in a line stretching from Hatay to Kahramanmaraş and Mardin.

Along with many civilizations in Anatolia, Phoenicians, Greeks, Romans, Seljuks and Ottomans cultivated olives and specialized in olive oil production. Remains of olives and signs related to olive oil technology were found in various archeological excavations in Urla-Limantepe in the Efe, Soykan, Cürebal, Sönmez Aegean region, in Salihli-Sardes (Lydia), in Mersin-Erdemli-Kumkuyu, Akkale and in Silifke (Cilicia) (Efe et al 2011).

The olive tree is commonly acknowledged to be the very first tree of all. It has been mentioned in all the major sacred writings and used since 6000 BC, according to archaeological and geological findings. The first method of olive oil production was to crush the olives underfoot and then extract the oil from the mash with hot water. The oldest olive oil facility, dating back to 600 BC, can be found at the ancient settlement of Klazomenai in west Anatolia, in the Urla district near the city of Izmir (Anonymous 2016a).

Olive Oil Trade in Turkey

Due to supply and demand disparities of olive; olive oil price and the competition in chain stores have increased. Turkey could not compete in the foreign market with the existing prices and most of the active exporting companies left the market. Even though the olive oil prices of 2017 season have now dropped in Turkey as compared to previous seasons, consumption did not increase because the cost of the products on the shelves were found to be still higher than people want to pay (Gurbuz, 2017).

Therefore, olive oil consumption per person in Turkey is lower than that in olive producer European countries (Anonymus, 2018). Turkey's production costs are considerably higher than foreign production costs, hence the price of Turkish olive oil is accordingly higher and Turkey can't compete with the foreign market. Turkey has faced this problem for almost every season. Thus, Turkey can only compete efficiently with the markets when the yield of European producers drops (Gurbuz, 2017).

The high production costs of olive oil in Turkey may be related to the difference in terrain conditions, harvesting circumstances, higher labor cost and the cost of harvest machines. The high prices also affect the domestic market of Turkey as consumers tend to buy cheaper oils instead of olive oil. Producers also complain of fake products and adulteration in the olive oil industry and hence the Ministry of Agriculture and Forestry announces regularly the names companies involved in fraud (Gurbuz, 2017).

According to National Olive and Olive Oil Council of Turkey, although production costs of olive oil by 25% increase in 2018, higher quality features were observed in this season's olive oil (Anonymous 2020). Some features of biggest two agricultural sales cooperatives unions in the field of olive and olive oil were given in Table 7. These cooperatives unions are responsible from production, processing and marketing activities in the sector by making direct purchases in terms of table olives and olive oil. Turkey Government also support olive oil producer by paying prime per kg of produced olive oil as presented in Table 8. In addition to premium support for olive producers, diesel and fertilizer supports have also been provided to olive producers for every 3 months since 2003 (Anonymous, 2018).

| Name | Field of Activity | Number of Cooperatives | Number of members |
|---------------------------|-------------------|---------------------------|----------------------|
| Tariș olive and olive oil | Olive oil and | 31 | 21 728 |
| union | Table olive | 51 | 21.720 |
| Marmarabirlik | Table olive and | Q | 20.640 |
| Marmaradintik | Olive oil | 0 | 29.049 |

| Voars | Prime Price |
|-------|---|
| rears | (TL/Kg) |
| 2013 | 0,60 |
| 2014 | 0,70 |
| 2015 | 0,70 |
| 2016 | 0,70 |
| 2017 | 0,80 |
| 2018 | 0,80 |
| 2019 | 0,80 |
| | Years 2013 2014 2015 2016 2017 2018 2019 |

Table 8. Annual prime paid amount of the olive oil in Turkey

(Anonymous, 2018, Ministry of Agriculture and Forestry, 2019)

Olive Oil Exports in Turkey

Olive oil is of great economic importance to Turkey. In parallel with the production, Turkey is ranked as the world's 4th exporter of olive oil after Spain, Italy and Tunisia with respect to natural olive oil exportation value (Table 9). Turkey has been also developing and evaluating olive oil production potential in order to extent of its global market significance to take the place of the big players.

| Countries | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
|-----------|---------|---------|---------|---------|
| Spain | 236.8 | 297.8 | 291.3 | 304.0 |
| Italy | 199.6 | 208.1 | 199.5 | 171.0 |
| Tunisia | 304.0 | 102.5 | 89.5 | 200.0 |
| Turkey | 30.0 | 15.0 | 45.0 | 65.0 |
| Portugal | 47.6 | 40.6 | 39.5 | 39.7 |
| Morocco | 25.0 | 17.0 | 9.0 | 15.0 |
| Argentina | 12.0 | 31.0 | 16.5 | 36.0 |
| Greece | 16.6 | 19.3 | 18.7 | 9.8 |
| Palestine | 6.5 | 4.5 | 4.0 | 4.0 |
| Other | 33.5 | 31.7 | 41.1 | 47.0 |
| Total | 929.0 | 788.5 | 780.0 | 910.2 |

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Turkey supplies the variety of olive oil to a wide range of countries including major producer countries such as the EU, the USA, Australia, Bahrain, United Arab Emirates, Brazil, China, Indonesia, the Philippines, South Africa, South Korea, India, Japan, Canada, Qatar, Kenya, Colombia, Malaysia, Mexico, Russian Federation, Senegal, Chile, Thailand, Ukraine, and Jordan are listed among the countries that Turkey exports olive oil (GTHB, 2014). Olive oil importing taxes, export supports and export amounts and duration of export support of Turkey are given in Table 10. The increase in consumption of olive oil in the world is also reflected in the significant changes observed in the structure of Turkey exports of olive oil. More precisely, the average export in the last three seasons (from 2015/16 to 2017/18) increased from 15000 tons to 65000 tones (Table 9).

Table 10. Olive oil importing taxes, export supports and export amounts and duration of export support of Turkey

| Year | Importing taxes (%) | Export supports and amount of dam (TL / Ton) | Duration of export support |
|------|------------------------|--|----------------------------|
| 2013 | 31,2 | 40 (%100) | 1-1-2013 / 31-12-2013 |
| 2014 | 31,2 | 50 (%100) | 1-1-2014 / 31-12-2014 |
| 2015 | 31,2 | 30 (%100) | 1-1-2015 / 31-12-2015 |
| 2016 | 46,8 | 30 (%100) | 1-1-2016 /31-12-2016 |
| 2017 | 31,2 | 30 (%100) | 1-1-2017 /31-12-2017 |

Processing technology, marketing policies and increases and decreases in production in other producing countries are the critical factors influencing our exports. Product stability is important for the sector; equally, penetration into new markets is desired. Although olive oil companies have a consensual view on this issue, they have different perspectives on recommended solutions. While the first proposed solution, a "warehouse receipt system", is indicated to be both visual and functional in the supply and value chain, sector stakeholders do not agree on an "inward processing regime" as being instrumental in addressing problems in the sector.

Another important issue in the olive oil industry is the custom duty applied by the European Union to Turkey and that of the quota prescribed for Turkey. The exporters indicate that the "bulk" export, which is damaging their global image and restricting branding activities, will be temporary; however, the adjustment policies of the European Union will be permanent (Bayrame et al., 2016).

Classification of Olive Oil in Turkey

According to Turkish Food Codex Regulation on olive oil and olive-residue oil (2017/26) which is directly harmonized with EU regulation (2568/91), olive oil is classified as follows; a) Natural olive oil: obtained from olive tree fruit by applying only mechanical or physical processes such as washing, decantation, centrifugation and filtration processes in a thermal environment that will not cause any change in its natural qualities; oils which have physical, chemical and sensory properties of products in their category. Oils obtained using solvent or chemical or biochemical action or by reesterification are excluded from this definition. Natural olive oils were classified as extra virgin olive oil, natural first olive oil and crude olive oil/refining.

- 1) Extra virgin olive oil: Suitable for direct consumption, free fatty acid oleic acid in terms of not more than 0.8 grams per 100 grams,
- 2) Natural first olive oil: Suitable for direct consumption, free fatty acid oleic acid in terms of oils not more than 2.0 grams per 100 grams,
- 3) Crude olive oil / Refining: Oils with a free fatty acid content of more than 2.0 grams per 100 grams of oleic acid and / or not suitable for direct consumption in terms of sensory and characteristic properties, suitable for refining or technical use
- 4) Refined olive oil: It is obtained as a result of refining crude olive oil by methods that do not cause changes in natural triglyceride structure and the free fatty acid is not more than 0.3 grams per 100 grams of oleic acid.
- 5) Riviera olive oil: It consists of a mixture of refined olive oil and natural olive oil suitable for direct consumption and its free fatty acid is not more than 1.0 grams per 100 grams of oleic acid.
- 6) Flavored olive oil: It is the oil obtained by adding different spices, plants, fruits and vegetables to olive oils and bearing the characteristics of the products in its category within the scope of this Communiqué in terms of other characteristics.

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Napping of olive oil primary production

Olive cultivation is an important economic activity for Italy. Olive cultivation areas of Italy are given in following figures. As it is possible to see Apulia region produces more than half of Italian production. Together with Sicily and Calabria, Apulia provides over 75% of the Italian production.



| Regions | Share | Average harvest 4 Seasons (t) |
|-----------------------|--------|----------------------------------|
| Piemonte | 0,0% | 6 |
| Lombardia | 0,2% | 548 |
| Trentino Alto Adige | 0,1% | 289 |
| Veneto | 0,5% | 1.515 |
| Friuli Venezia Giulia | 0,0% | 103 |
| Liguria | 1,0% | 3.370 |
| Emilia Romagna | 0,3% | 1.030 |
| Toscana | 4,3% | 14.171 |
| Umbria | 1,2% | 3.978 |
| Marche | 1,1% | 3.551 |
| Lazio | 4,3% | 14.190 |
| Abruzzo | 2,9% | 9.360 |
| Molise | 0,8% | 2.724 |
| Campania | 3,5% | 11.466 |
| Puglia | 51,9% | 170.179 |
| Basilicata | 1,5% | 4.803 |
| Calabria | 13,6% | 44.433 |
| Sicilia | 11,0% | 35.917 |
| Sardegna | 1,9% | 6.106 |
| ITALY | 100,0% | 327.738 |

Fonte scheda di settore Olio di Oliva. Ismea 2019

Olive oil Historical data

As for Italy, it is important to note that the presence of olive stones in archaeological contexts is documented up to the Mesolithic.

The linguistic, literary and archaeological evidences allow us to affirm that, already between the VIII and VII century. B.C. not only was olive cultivation practiced, but there were organized crops which, thanks to the Mediterranean climate, soon allowed the formation of a surplus for trade.

As far as the historical age is concerned, there are also paleobotanical evidences: the wreckage of the Giglio's ship from 600 BC about, with its extruded amphorae full of preserved olives and the so-called "Tomb of the Olives" of Cerveteri, datable to 575-550 BC, containing, in addition to a service of bronze vases for the banquet, also a sort of boiler full of hazelnuts of olives.

It is not easy to reconstruct the agricultural landscape of ancient Etruria: the transformations undergone over time, and above all the impoverishment and abandonment of the countryside, begun in Roman times, prevent us from grasping, in all its details, a situation that it still had to be quite

flourishing. Even the panorama offered by ancient sources should be read with caution, taking into account the relevant historical context in which the memory of a happy past and the findings of a contemporary reality, that of the first imperial age, in which the characters of the Etruscan landscape and methods of farming were undoubtedly structured differently.

After a first phase in which the oil containers placed in the princely tombs of Lazio and Etruria appear to be mostly imported, during the third quarter of the 7th century. B.C. begins on-site production of these pots, destined over time to intensify: these are not only containers of oil-based fragrance essences, but also of containers designed to contain edible oil. It is the moment in which oil and wine from precious goods of an exotic brand, included in the luxury goods trade, become widely used in Etruria products as their containers, which become very frequent in the grave goods in the high age and middle-archaic: particularly common are the small balsamari in bucchero and ceramic figulina, which imitate the aryballoys and the imported Corinthian alabaster.

In imperial times olives were served in all dinners, even in the most important ones: as Martial said, they constituted both the beginning and the end of the meal, ie they were brought both as appetizers and offered when finished eating, we enjoyed drinking.

Fonte.

https://www.beniculturali.it/mibac/multimedia/MiBAC/minisiti/alimentazione/sezioni/origini/artic oli/olio.html

| The following table give | e us the prima oit | produci | | | | | |
|--|-----------------------------------|--|--|--|--|-----------------------------------|---|
| | udm | 2015 | 2016 | 2017 | 2018** | Var. 2018**/17 | % |
| Structure | | | | | | | |
| acricoltural farm area area/company* frantoi attivi Industrial company1 Offer | (n) (ha) (ha) (n) (n) | 825.201 1.073.324 1,30 4.944 220 | 825.201 1.164.389 1,41 3.961 220 | 825.201 1.170.157 1,42 4.870 220 | 825.201 1.170.157 1,42 4.036 220 | 0,0 0,0 0,0 -17,1 0,0 | |
| production denominations weight (DOP) | (t) t (% quantità) | 474.620 2,3 | 182.325 4,0 | 428.922 2,3 | 185.000 4,0 | -56,9 71,6 | |
| production consumption | /(% quantità) | 88,7 | 33,8 | 98,8 | 34,9 | -64,7 | |
| Industry turnover2 | (milioni euro) | 3.151 | 3.214 | 3.310 | 3.320 | 0,3 | |
| Weight on turnover Alimentary index | . (% valore) | 2,4 | 2,4 | 2,5 | 2,5 | 0,3 | |
| Foreign trade | | | | | | | |
| import import/human consumption | (milioni di euro) (% quantità) | 1.859 109,1 | 1.791 105,6 | 1.959 122,3 | 1.763 110,9 | -10,0 -9,3 | |
| Weight on the tot Agribusiness | . (% valore) | 4,3 | 4,2 | 4,3 | 4,2 | -2,2 | |

Olive oil primary production in Italy

The following table give up the grides of graduat

| 24 | export Weight on the tot. Agrobusiness | (milioni di euro) (% valore) | 1.530 4,1 | 1.618 4,2 | 1.573 3,8 | 1.573 3,8 | 0,0 -1,6 |
|----|--|---|----------------------|-----------------------|-----------------------|-----------------------|-------------------------|
| • | export/production balance Normalized balance | (% quantità) (milioni di euro) (% valore) | 76,3 -329 -9,7 | 218,2 -173 -5,1 | 76,8 -386 -10,9 | 202,7 -190 -5,7 | 164,0 -50,8 -47,9 |
| | apparent total human consumption3 | (t) | 535.000 | 540.000 | 434.000 | 530.000 | 22,1 |
| | apparent per capita consumption 4 | (kg) | 9,2 | 9,0 | 8,5 | 8,9 | 4,5 |
| | Market | (100 = 2010) | 10/ 0 | 158.8 | 208 7 | 167 9 | -19.6 |
| | price index | (100-2010) | 209.3 | 158.9 | 200,7 | 176.0 | -18 4 |
| | Index of olive production means | (100=2010) | 108,2 | 105,9 | 108,6 | 111,6 | 2,8 |

| | Total 2016 | Ha in conversion 2017 | Biological Ha 2017 | Total 2016 | Var.% 17/16 |
|---------------|------------|-----------------------------|-----------------------|------------|----------------|
| Olive | 222.452 | 63.510 | 172.232 | 235.741 | 6,0 |
| - Table olive | 799 | 277 | 702 | 979 | 22,5 |
| - Olive oil | 221.653 | 63.233 | 171.529 | 234.762 | 5,9 |

Fonte: ISMEA su dati SINAB,



| | udm | 2015 | 2016 | 2017 | 2018** | Var. 9 2018**/17 |
|--|---|--|--|--|--|------------------------------------|
| Structure | | | | | | |
| acricoltural farm area area/company* frantoi attivi Industrial company1 Offer | (n) (ha) (ha) (n) (n) | 825.201 1.073.324 1,30 4.944 220 | 825.201 1.164.389 1,41 3.961 220 | 825.201 1.170.157 1,42 4.870 220 | 825.201 1.170.157 1,42 4.036 220 | 0,0 70,0 0,0 -17,1 0,0 |
| production denominations weight | (t) (% quantità) | 474.620 2,3 | 182.325 4,0 | 428.922 2,3 | 185.000 4,0 | -56,9 71,6 |
| production / consumption | (% quantità) | 88,7 | 33,8 | 98,8 | 34,9 | -64,7 |
| Industry turnover2 | (milioni euro) | 3.151 | 3.214 | 3.310 | 3.320 | 0,3 |
| Weight on turnover. Alimentary index | (% valore) | 2,4 | 2,4 | 2,5 | 2,5 | 0,3 |
| Foreign trade import import/human consumption | (milioni di euro) (% quantità) | 1.859 109,1 | 1.791 105,6 | 1.959 122,3 | 1.763 110,9 | -10,0 -9,3 |
| Weight on the tot. Agribusiness | (% valore) | 4,3 | 4,2 | 4,3 | 4,2 | -2,2 |
| export Weight on the tot. Agrobusiness | (milioni di euro) (% valore) | 1.530 4,1 | 1.618 4,2 | 1.573 3,8 | 1.573 3,8 | 0,0 -1,6 |
| export/production balance Normalized balance Demand | (% quantità) (milioni di euro) (% valore) | 76,3 -329 -9,7 | 218,2 -173 -5,1 | 76,8 -386 -10,9 | 202,7 -190 -5,7 | 164,0 -50,8 -47,9 |
| apparent total human consumption3 | (t) | 535.000 | 540.000 | 434.000 | 530.000 | 22,1 |
| apparent per capita consumption 4 Market | (kg) | 9,2 | 9,0 | 8,5 | 8,9 | 4,5 |
| Olive oil production | (100 - 2010) | 10/ 0 | 158 8 | 208 7 | 167.0 | -10.6 |
| price index - Evo index | (100=2010) | 209.3 | 158,9 | 200,7 | 176.0 | -18.4 |
| Index of olivo | (100 - 2010) | 108.2 | 105.0 | 108.6 | 111 6 | 2.8 |
| production means | (100-2010) | 100,2 | 103,7 | 100,0 | ,0 | 2,0 |

Table Olives figures in Italy

Only one third of the Italian production comes from cultivar expressly from the canteen. The remaining part comes from dual-purpose olives, for which the total volumes always depend on the choices to allocate the product to the circuit of direct fresh consumption or to milling based on seasonal and market trends. This is why at the production level it is difficult to establish exact volumes intended for table olives. Furthermore, Italy does not stand out for production and is a net importer.

In the best years the production reaches 70-75 thousand t, but in bad years it can stay below 40 thousand. A first evidence is that the regions that produce table olives are much less than those that produce oil (chart 1). Moreover, unlike what happens in oil, in the table olives sector Sicily gained the leadership of production with half of the national production. Follows, at a great distance, Puglia and then Calabria. Liguria and Lazio are also well positioned.



Fonte elaborazione Ismea su dati Istat

Even with regard to processing companies, there are very few statistical data. Some data can be obtained from producer organizations. An Unaprol estimate indicates, drawing from different sources, about 300 processing industries of table olives and of these about 30% packages the product. In general, medium-small companies with processing and storage capacities below 2,000 q, while only around 10% exceed capacities greater than 5,000 q.

On the other hand, it is established that Italy is a net importer. Considering all the product categories that we summarize in the "table olives" segment, imports in some years exceed, in fact, 100 thousand t, while exports rarely reach 40 thousand t. The balance of the trade balance in terms of value is therefore also negative. In 2017 the deficit reached 66 million euros. 91% of imports come from EU countries with a similar percentage in terms of expenditure. Going into the details of the supplying countries, it is noted that over half of the Italian import requirement is met by Spain, and a third by Greece. The export situation is different. Within the EU, 67% of the total is exported for a value equal to 55% of revenues. The first customer country by value is the USA, while the United Kingdom, still accounted for in the EU, is the first customer in volume with 25%.

Olive Oil Imports Vs export

| S | • | | | | | | |
|--------------|----------------|--------|--------|--------|-----------------|--------|---------|
| \mathbf{x} | Thousands of t | on | | | Milions of euro | | |
| | | Import | Export | Saldo | Import | Export | Balance |
| | 2008 | 517 | 336 | -181 | 1.291 | 1.169 | -122 |
| | 2009 | 497 | 327 | -170 | 1.006 | 1.015 | 8 |
| | 2010 | 612 | 381 | -231 | 1.203 | 1.166 | -36 |
| | 2011 | 625 | 402 | -223 | 1209 | 1.237 | 28 |
| | 2012 | 599 | 417 | -182 | 1155 | 1.271 | 116 |
| | 2013 | 481 | 385 | -96 | 1224 | 1.375 | 151 |
| | 2014 | 666 | 411 | -255 | 1.510 | 1.371 | -139 |
| | 2015 | 583 | 362 | -221 | 1.859 | 1.530 | -329 |
| | 2016 | 570 | 398 | -172 | 1.791 | 1.618 | -173 |
| | 2017 | 531 | 329 | -201 | 1.953 | 1.552 | -402 |
| | Var. 17/16 | -6,9% | -17,2% | -22,1% | 9,1% | -4,1% | -47,5% |

Classification of olive oil

Virgin olive oils are the oils obtained from the fruit of the olive tree (Olea europaea L.) solely by mechanical or other physical means under conditions, particularly thermal conditions, that do not lead to alterations in the oil, and which have not undergone any treatment other than washing, decantation, centrifugation and filtration.

Virgin olive oils fit for consumption as they are including:

Extra virgin olive oil

• Virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 0.8 grams per 100 grams, and the other characteristics of which correspond to those fixed for this category in the IOC standard.

Virgin olive oil

Virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 2 grams per 100 grams and the other characteristics of which correspond to those fixed for this category in the IOC standard.

Ordinary virgin olive oil

Virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 3.3 grams per 100 grams and the other characteristics of which correspond to those fixed for this category in the IOC standard. This designation may only be sold direct to the consumer if permitted in the country of retail sale. If not permitted, the designation of this product has to comply with the legal provisions of the country concerned.

Virgin olive oil not fit for consumption

Virgin olive oil not fit for consumption as it is, designated lampante virgin olive oil, is virgin olive oil which has a free acidity, expressed as oleic acid, of more than 3.3 grams per 100 grams and/or the organoleptic characteristics and other characteristics of which correspond to those fixed for this category in the IOC standard. It is intended for refining or for technical use.

Refined olive oil

Refined olive oil is the olive oil obtained from virgin olive oils by refining methods which do not lead to alterations in the initial glyceridic structure. It has a free acidity, expressed as oleic acid, of not more than 0.3 grams per 100 grams and its other characteristics correspond to those fixed for this category in the IOC standard. This designation may only be sold direct to the consumer if permitted in the country of retail sale.

Olive oil

Olive oil is the oil consisting of a blend of refined olive oil and virgin olive oils fit for consumption as they are. It has a free acidity, expressed as oleic acid, of not more than 1 gram per 100 grams and its other characteristics correspond to those fixed for this category in the IOC standard. The country of retail sale may require a more specific designation.

Olive pomace

Olive pomace oil is the oil obtained by treating olive pomace with solvents or other physical treatments, to the exclusion of oils obtained by re esterification processes and of any mixture with oils of other kinds. It is marketed in accordance with the following designations and definitions:

Crude olive pomace oil is olive pomace oil whose characteristics correspond to those fixed for this category in the IOC standard. It is intended for refining for use for human consumption, or it is intended for technical use.

Refined olive pomace oil is the oil obtained from crude olive pomace oil by refining methods which do not lead to alterations in the initial glyceridic structure. It has a free acidity, expressed as oleic acid, of not more than 0.3 grams per 100 grams and its other characteristics correspond to those fixed for this category in the IOC standard. This product may only be sold direct to the consumer if permitted in the country of retail sale.

Olive pomace oil is the oil comprising the blend of refined olive pomace oil and virgin olive oils fit for consumption as they are. It has a free acidity of not more than 1 gram per 100 grams and its other characteristics correspond to those fixed for this category in the IOC standard. The country of retail sale may require a more specific designation.

Classification for Health Claims

Considering that the current product classification of olive oils, conceived in 1991, is obsolete and inadequate to describe inopportunely the qualitative differences of the products present on the market, the claim of the polyphenols represents, in fact, a tool of differentiation useful to the consumer to attribute to the product a premium price.

The European Food Safety Authority has approved the health claim (Commission Regulation (EU) 432/2012) that Olive oil polyphenols contribute to the protection of blood lipids from oxidative stress. The claim may be used only for olive oils, containing at least 250 mg of hydroxytyrosol, tyrosol or their derivatives per 1 Kg of olive oil and the beneficial effect is obtained with a daily intake of 20 gr of olive oil, a table spoon.

Health claims made in relation to food products require authorisation under Regulation EC 1924/2006 before they can be used in the labelling and marketing of these products in the EU. Within the context of this authorisation procedure, EFSA's Panel on Dietetic Products, Nutrition and Allergies (NDA) is responsible for verifying the scientific substantiation of the health claims. The Regulation (EU) No. 432/2012 of the European Commission of May 16, 2012 has defined a list of permitted health claims and the European Register of Nutrition and Health Claims (EU Register of Nutrition and Health Claims) has provided food reports on all the authorized health indications, conditions and restrictions of use, as well as unauthorized health claims and the reasons for their inapplicability.

The permitted health claims for olive oil are relative to

- olive oil polyphenols
- oleic acid
- vitamin E
- monounsaturated and/or polyunsaturated fatty acids

Those claims offer a better classification of extra virgin olive oil.

References: www.internationaloliveoil.org/olive-world/olive-oil/

<u>G</u>raphics

Source: Trade Map, International Trade Centre - www.trademap.org



Prospects for market diversification for a product exported by Greece in 2019 Product : 070992 Fresh or chilled olives

Prospects for market diversification for a product exported by Greece in 2019 Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil



List of importing markets for a product exported by Greece in 2019



Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil



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Prospects for market diversification for a product exported by Italy in 2019 Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil



List of importing markets for a product exported by Italy in 2019 Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil

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Prospects for market diversification for a product exported by Turkey in 2019 Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil



Prospects for market diversification for a product exported by Turkey in 2019

List of importing markets for a product exported by Turkey in 2019 Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil





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Erasmus+ ARISTOIL capitalization 2019-1-EL01-KA202-063001

Bilateral Trade between the involved countries

Bilateral trade between Greece and Italy

Product: 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical ...

Unit : Euro thousand

| Product code | | | s exports | to Italy | Greece's exports to world | | | |
|-----------------|--|------------------|------------------|------------------|---------------------------|------------------|------------------|--|
| | Product label | Value in 2017 | Value in 2018 | Value in 2019 | Value in 2017 | Value in 2018 | Value in 2019 | |
| 15091020 | Extra virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other | 184,862 | 274,325 | 107,916 | 348,094 | 472,473 | 290,560 | |
| 15091010 | Virgin lampante olive oil obtained from the fruit of the olive tree solely by mechanical or | 31,522 | 29,907 | 16,576 | 41,710 | 42,651 | 24,482 | |
| 15091080 | Virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other physical | 4,788 | 7,086 | 2,097 | 22,553 | 23,543 | 17,133 | |

Bilateral trade between Greece and Turkey

Product: 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical ...

Unit : Euro thousand

| Product code | | Greed | ce's expo Turkey | orts to | Greece's exports to world | | | |
|-----------------|--|---------------------|---------------------|---------------------|---------------------------|------------------|------------------|--|
| | Product label | Value in 2017 | Value in 2018 | Value in 2019 | Value in 2017 | Value in 2018 | Value in 2019 | |
| 15091020 | Extra virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other | 5 | 39 | 35 | 348,094 | 472,473 | 290,560 | |
| 15091080 | Virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other physical | 0 | 0 | 0 | 22,553 | 23,543 | 17,133 | |
| 15091010 | Virgin lampante olive oil obtained from the fruit of the olive tree solely by mechanical or | 0 | 0 | 0 | 41,710 | 42,651 | 24,482 | |

ω 800 800

Bilateral trade between Italy and Greece

Product: 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical ...

Unit : Euro thousand

| Product code | Product label | | 's expo Greece | rts to | Italy's exports to world | | | |
|-----------------|--|-----|---------------------|---------------------|--------------------------|------------------|------------------|--|
| | | | Value in 2018 | Value in 2019 | Value in 2017 | Value in 2018 | Value in 2019 | |
| 15091020 | Extra virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other | 59 | 343 | 284 | 1,166,837 | 1,143,640 | 1,121,120 | |
| 15091010 | Virgin lampante olive oil obtained from the fruit of the olive tree solely by mechanical or | 291 | 6 | 4 | 15,443 | 15,716 | 7,328 | |
| 15091080 | Virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other physical | 53 | 436 | 0 | 46,365 | 33,626 | 18,937 | |

Bilateral trade between Italy and Turkey

Product: 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical ...

Unit : Euro thousand

| Product code | | Italy | 's expo Turkey | rts to | Italy's exports to world | | | |
|-----------------|--|---------------------|---------------------|---------------------|--------------------------|------------------|------------------|--|
| | Product label | Value in 2017 | Value in 2018 | Value in 2019 | Value in 2017 | Value in 2018 | Value in 2019 | |
| 15091020 | Extra virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other | 59 | 46 | 110 | 1,166,837 | 1,143,640 | 1,121,120 | |
| 15091080 | Virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other physical | 11 | 0 | 15 | 46,365 | 33,626 | 18,937 | |
| 15091010 | Virgin lampante olive oil obtained from the fruit of the olive tree solely by mechanical or | 17 | 0 | 0 | 15,443 | 15,716 | 7,328 | |



Bilateral trade between Turkey and Italy

Product: 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical ...

Unit : Euro thousand

| Product code | Product label | Turkey's exports to Italy | | | Turkey's exports to world | | |
|--------------|---|------------------------------|---------------------|---------------------|------------------------------|---------------------|---------------------|
| | | Value in 2017 | Value in 2018 | Value in 2019 | Value in 2017 | Value in 2018 | Value in 2019 |
| 150910800014 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 3,081 | 3,661 | 1,465 | 68,792 | 64,619 | 30,694 |
| 150910100000 | Virgin lampante olive oil obtained from the fruit of the olive tree solely by mechanical or | 0 | 0 | 0 | 3 | 0 | 5 |
| 150910200000 | Extra virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other | 0 | 0 | 0 | 1 | 3 | 8 |
| 150910800011 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 0 | 0 | 0 | 21,091 | 34,816 | 27,623 |
| 150910800012 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 0 | 0 | 0 | 3,464 | 5,693 | 4,555 |
| 150910800013 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 0 | 0 | 0 | 5,011 | 11,054 | 9,162 |

Bilateral trade between Turkey and Greece

Product: 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical ...

Unit : Euro thousand

| Product code | Product label | Turkey's exports to Greece | | | Turkey's exports to world | | |
|--------------|---|-------------------------------|---------------------|---------------------|------------------------------|---------------------|---------------------|
| | | Value in 2017 | Value in 2018 | Value in 2019 | Value in 2017 | Value in 2018 | Value in 2019 |
| 150910100000 | Virgin lampante olive oil obtained from the fruit of the olive tree solely by mechanical or | 0 | 0 | 0 | 3 | 0 | 5 |
| 150910200000 | Extra virgin olive oil obtained from the fruit of the olive tree solely by mechanical or other | 0 | 0 | 0 | 1 | 3 | 8 |
| 150910800011 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 0 | 0 | 0 | 21,091 | 34,816 | 27,623 |
| 150910800012 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 0 | 0 | 0 | 3,464 | 5,693 | 4,555 |
| 150910800013 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 0 | 0 | 0 | 5,011 | 11,054 | 9,162 |
| 150910800014 | Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical | 0 | 0 | 0 | 68,792 | 64,619 | 30,694 |

Number of companies exporting extra virgin olive oil

Product: 150910 Virgin olive oil



Export value of extra virgin olive oil

Product: 150910 Virgin olive oil





List of importing markets for a product exported by Greece in 2019

Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil



List of importing markets for a product exported by Italy in 2019

Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil



List of importing markets for a product exported by Turkey in 2019

Product : 150910 Virgin olive oil and its fractions obtained from the fruit of the olive tree solely by mechanical or other physical means under conditions that do not lead to deterioration of the oil

