

## **Economic Dimensions of Olive Agriculture in Turkey**

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### **ABSTRACT**

The homeland of olives (*Olea europaea* L.), a member of the Oleacea family, is It includes Upper Mesopotamia and Southern Asia, including the Anatolian Region. Today The olive plant, which has been shown as the plant of the 20<sup>th</sup> century and has not lost its importance for centuries. Mardin, Hatay, Syria, Palestine and Cyprus. 90% of olive cultivation in the world, the Mediterranean basin, back the rest is in Latin American countries. Around 9 million hectares in the World 17 million tons of olives are obtained from 900 million olive trees in the area. World olive oil production is around 2.85 million tons compared to the last five seasons. Important respectively olive oil producing countries, Spain, Italy, Greece, Portugal, Turkey, Tunisia and Is Syria. Although the share of EU countries in production varies by years, on average 68% at the level. Spain ranks first among the EU countries with Italy and Greece It is followed. Spain's share in EU production is around 64%. In this study, revenues from Turkey's olive and olive products were evaluated in multiple dimensions. Thus, as a Mediterranean country Turkey has been demonstrated place in the olive farming.

**Keywords:** Olive, Olea, Economy, Agriculture, Turkey

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### **INTRODUCTION**

Olive (*Olea europaea* L.), production in Turkey Şırnak, Mardin, Urfa, Hatay, Turkey and the Mediterranean, are made in the provinces in the Marmara and the Black Sea coast. Turkey Statistical Institute (TSI), according to published by and is still used data, Turkey with 171 million trees more than assets and average 1.7 million tons of grain olive production is among the countries with the world's most important olive production. Olive production is a very profitable business in the medium and long term, provided that the climate conditions and the region is suitable for growing olive trees.

In order to grow olive trees commercially, it is necessary to first select an area with certain characteristics in an area with suitable climatic conditions. Olive trees prefer well-drained soils (flat or slightly sloping) and areas with plenty of sunlight. They cannot withstand temperatures down to -7 °C for many days, but they need a certain degree of cooling for fruit development. This is the reason why olive trees cannot grow in tropical climates.

For planting olive seedlings that are at least 2-3 years old should be preferred. After site selection and soil preparation, the places where the seedlings will be planted are determined. First, the point where each seedling will be planted should be determined and 50 cm X 50 cm pits should be opened. When planting the seedlings, the soil on the surface of the pit should cover the root ball of the seedlings. Seedlings in areas without frost problems, such as the end of autumn (November to the end of February) is done, while in areas with frost problem planting should be done in the spring after the last frost has passed. Planting distance

between trees should be usually 6 X 6 meters. This is a square planting system, resulting in 272 trees per hectare. If the soil is very fertile, olive trees are planted at dense planting distances and this dense planting causes mutual shading of the trees.

The olive tree is drought-resistant, but reacts positively to irrigation by any means. Because well-watered trees tend to yield higher yields. Productive olive trees are irrigated from the growing season to the beginning of winter precipitation (only when necessary) because water deficiency can adversely affect leaf growth, fruit growth and fruit growth. Most California olive producers water their trees once a week to once a month between May and June, assuming that it does not rain during this period. Over-watering can promote unnecessary growth, reducing flowering and increasing pruning costs.

Pruning is applied to prolong the yield of olive tree and to remove dead branches. Pruning of olive trees is usually done immediately after olive harvest in areas where there is no risk of frost. In other cases, pruning is carried out in spring (March-April). Our aim in pruning the tree is too large and the tree should try to prevent the dense branches. Usually, pruning is applied to branches located at the base or bottom of the tree, that is normally not likely to bear fruit, thus encouraging the development of new branches. Then we clean the interior of the tree, so that the interior of the tree receives sunlight. Sunlight is very important for fruit development. Old, broken and diseased branches should also be removed. The frequency of tree pruning in commercial olive groves varies from one to two years.

In particular, the optimal harvest time has been a subject of great debate in recent years. Harvest time is largely dependent on weather conditions, olive tree variety and cultivation methods. On the other hand, the time of harvest depends on whether the olive tree is grown for grain or olive oil. Choosing the right time gives the olive grower a competitive advantage in terms of yield, color, taste and aroma of olives. On average, when an olive tree is around 4-5 years old, it starts to produce olives and it can last forever. Generally, high temperatures in the autumn period cause premature ripening, and vice versa. There are many maturity indexes that determine the maturity standards of ripe olives. If you take good care of your olive trees, an average of 22 to 90 kg of crop can be obtained per healthy mature tree. In order to have olive oil, we must deliver the olives to the factory immediately after harvest, as there is a risk of occurrence of conditions that may affect their quality during storage. An average of 3 to 7 kg of olive oil is obtained from 1 kg.

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## **RESULTS AND DISCUSSION**

### **Olive Trade in the World and Turkey**

In recent years, with the increasing interest in healthy living and nutrition in the world, the importance of the production and consumption of grain olives and olive oil is increasing. The pull of the sector in Turkey is not the only olive production, interest in the processing industry and trade has also increased. There have even been serious capital transfers from different sectors to the olive and olive oil production sector. Healthy living and widespread use of olive oil on TV and social media have increased the demand for the product to a great extent. This pressure on the global demand front has led to an increase in prices.

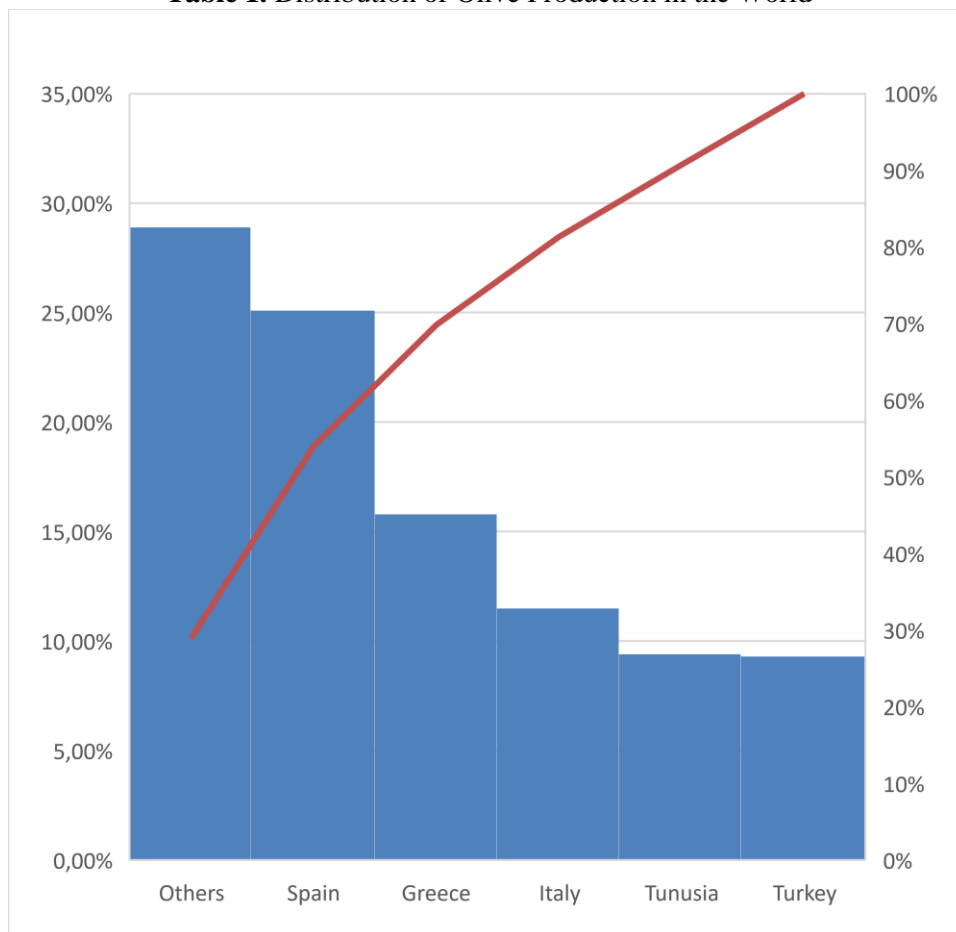
Olives are produced only in certain regions of the world. Turkey due to take place in areas where the olives grown products throughout the world is one of the important olive producing countries. Olives, which are produced in Aegean, Marmara, Mediterranean, Southeastern Anatolia and Black Sea regions, should be taken into consideration in terms of being an important source of livelihood of domestic agricultural population and being an important export item of our country. With the increasing importance of olive oil and table olives in parallel with the idea of healthy living, the importance of olive product in international trade has also increased.

Therefore, in this study by analyzing olive production in Turkey, Turkey's position is examined using data on foreign trade in world trade olives. According to the indicators obtained, countries are placed in order of importance according to their share in world olive trade. The findings of this study, the importance of Turkey's olive trade showed an increase after 2000, but began to decline after 2011; It also reveals that export centrality is severely affected by the periodicity.

### **Turkey's share in world olive production**

The shares of the countries in the world olive trade are presented with graphics. According to the obtained indicators, Spain is the leader of world olive trade with 25.10%. Greece is followed by 15.8%. Respectively, compared to 11.5% after Italy, Tunisia and rates will be 9.30% compared to 9.40% in Turkey is to follow (Table 1).

**Table 1.** Distribution of Olive Production in the World



## Olive and Olive Oil Production in Turkey

**Table 2.** Olive Production in Turkey (2004-2018)

Year	Total Number of Trees	Total Production (tons)	Edible (tons)	Oiler (tons)
2004	107.000,000	1.600.000	400.000	1.200,000
2005	113.000,000	1.200.000	400.000	800.000
2006	129.000,000	1.800.000	560.000	1.240,000
2007	144.000,000	1.100.000	460.000	640.000
2008	152.000,000	1.500.000	520.000	980.000
2009	154.000,000	1.300.000	600.000	700.000
2010	156.000,000	1.400.000	375.000	1.050,000
2011	156.000,000	1.750.000	550.000	1.200,000
2012	157.000,000	1.800.000	480.000	1.320,000
2013	167.000,000	1.700.000	390.000	1.310,000
2014	169.000,000	1.700.000	440.000	1.260,000
2015	172.000,000	1.750.000	400.000	1.350,000
2016	174.000,000	1.700.000	430.000	1.270,000
2017	175.000,000	2.100.000	440.000	1.660,000
2018	178.000,000	1.600.000	460.000	1.140,000

In Table 2; Between the years 2004-2018 the total number of olive trees grown and the total amount of olives produced in Turkey are seen. Accordingly, it is observed that the total amount of olives produced is fluctuating and even in 2018 production has decreased considerably.

### Exports of olive oil in Turkey

Our country's olive oil exports may show sharp increases and decreases due to the fluctuations in olive oil production which changes from year to year. Increases and decreases in production technology, marketing policies and other producer principles are other important factors affecting our exports (table 3).

**Table 3.** Exports of olive oil in Turkey (2007-2016)

Years	Quantity (kg)	Amount (\$)	Average Price (kg/\$)
2007	19.400,000	77.200,000	4,00
2008	31.500,000	100.400,000	3,20
2009	20.000,000	68.000,000	3,40
2010	14.000,000	52.300,00	3,75
2011	25.800,00	81.000,000	3,15
2012	96.600,000	305.400,000	3,15
2013	24.000,000	91.500,000	3,80
2014	14.000,000	63.400,000	4,50
2015	19.100,000	72.800,000	3,80
2016	53.600,000	207.700,00	3,90

### Consumption of Olives in The World

In parallel with the production of olive exports to take first place in the EU countries, these countries are Egypt, Turkey and Morocco are followed (Table 4).

**Table 4.** Consumption of Olives in The World (2013-2017; million tons)

Country	2013	2014	2015	2016	2017
EU	284	315	272	296	307
Egypt	65	47	90	100	200
Morocco	87	78	80	77	70
Turkey	71	64	73	80	80
Argentina	72	47	48	66	56
Syria	5	4	5	0	0
Others	55	51	46	55	54
Total	640	606	615	663	776

### World Olive Oil Consumption

Olive oil consumption in the first row of the producer countries of the EU countries while receiving steady but increased the annual per capita consumption of olive oil consumption is seen that Turkey stayed in a 2 liter (Table 5).

**Table 5.** World Olive Oil Consumption (million tons)

Country	2013	2014	2015	2016	2017
EU	1.731	1604	1.667	1.437	1.530
USA	301	295	317	298	302
Turkey	1051	125	124	130	140
Syria	170	126	106	110	100
Morocco	120	120	120	100	120
Brazil	72	66	50	59	60
Australia	37	37	42	45	45
Tunisia	37	30	35	25	35
Others	501	512	524	501	541
Total		2.851	3.000	2.705	2.874

### CONCLUSION

In recent years, with the increasing importance given to healthy life in our society and the contribution of olive to human health, the demand for olive and olive oil has increased significantly. This excessive demand from the worldwide consumer front has caused prices to rise. But the abundance of Turkey's geographical position as olive trees, although there is a potential of increasing importance in world trade olives, olive exports were realized in the expected level of market share compared to its competitors. Our aim bringing a better situation in Turkey in the world market olives, olive to increase our exports.

Turkey olive with short and long term solutions to reach the desired level. First of all, agricultural activities should be encouraged by increasing the subsidies and product increase should be provided. For this, not only support but also farmers should be provided with pruning training to combat diseases and pests on site. On the other hand the olive and olive oil exports to Turkey, restrictions such as tariffs applied by the EU, undermine the competitiveness of Turkey.

Giving importance to olive market in Turkey; it is important to identify the problems encountered in both olive and olive oil production and marketing activities in international markets and to produce professional solutions to these problems.

Olive was born in Anatolia and has been In the Mediterranean basin is a plant whose cultivation has become a tradition.

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