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Olive Existence in Akhisar District in Manisa Province in Turkey

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Abstract: In Turkey which is one of the main olive producing countries in the world, in the Aegean Region some provinces are coming forth in respect of olive existence. Since Akhisar district constitutes half of the olive existence in Manisa province it was found to be worth research. In order to detect olive existence and sector improvement in Akhisar and in selected villages a face to face survey has been held among farmers. Survey results were evaluated by the SPSS programme. At the end of the evaluation it was determined that; there was an increase in lands reserved for olive growing, olive is being preferred against tobacco which is an important agricultural product, farmers are leaning towards the Domat type whose origin is in Akhisar, intensive agricultural techniques are implemented, diseases and harmful activities are at a minimum level in olive groves.

Key words: Olive, olive existence, olive oil, Turkey-Manisa-Akhisar olive production

INTRODUCTION

The olive which is the symbol of peace has been the most important plant in Mediterranean and Aegean Regions since ancient times. While 890 million olive trees are grown on approximately 10 million ha all around the world, its cultivation is economically made generally in Mediterranean countries which Turkey is one. Turkey has a rather important position among countries which have 97% olive tree existence. In Turkey, as it is the case all around the world, 65-70% of the olives produced are manufactured for oil and 30-35% for table olive. (Tunalıoğlu *et al.*, 2003). Eighty five percent of table olives produced in Turkey are black, 15% are green. Turkey is the top producer of black table olives in the world (Tunalıoğlu, 2003). Seventy five percent of olive trees in Turkey are in the Aegean, 9.3% in Marmara, 14% in the Mediterranean and 1.7% in Southeast Anatolian Regions (Tunalıoğlu, 2002).

The olive which has been produced in Turkey for thousands of years has an important place in Manisa and its districts. Producers in the Aegean and Manisa regions prefer this product both by using its oil and itself. In 2005 the number of trees that gave fruit in Manisa was 8,415,420. In Manisa the total production of olives for table olives and olive oil takes place on an area of 6,476 ha. In the Akhisar district of Manisa the olive

production area is 30,500 hectares. In Manisa 50% of olive production comes from Akhisar, Akhisar is followed by Saruhanlı with 18% production, Kırkağaç 11% production and Soma with 8% production (Manisa Province Agriculture Directorship, 2005a).

Akhisar was identified with the best green table olive type Domat. The dominating types in old groves are Ayvalık, Uslu, Memecik and other regional types. In 1970 the Marmara Region's best black table olive type, Gemlik (Trilye) was introduced to the Akhisar Region. New groves are generally found with Gemlik and Domat types. The previous way of classic production is now being replaced by modern production methods. By planting more saplings in the unit area intensive production has started. In this system, by implementing modern fruit growing techniques the short production system is making it easy for harvesting, pruning and protection. Instead of previous groves of moor, poor and slant, today groves are built on base and moor-base areas.

In Akhisar while the average output was 15 kg per tree in 2000, it reached 22 kg in 2005 (Akhisar District Agriculture Directorship, 2005). Particularly to increase the amount and quality in table olive production in Akhisar the drip irrigation method which is a modern irrigation technique has started to be used (Turkish Republic Manisa Governorship, 2000).

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Tobacco cultivation which was prevailing for many years in Akhisar is losing its importance at the result of government policies implemented. Therefore, growers in Akhisar are targeting alternative crops. The olive is in first place among these agricultural products. In addition to the present ones, growers are transferring their tobacco fields into olive groves. Parallel to the increase in the olive growing areas, an increase in olive plant numbers has been observed. In recent years these improvements in olive growing in Akhisar made olive, which has a high profit, the leading product among others.

MATERIALS AND METHODS

Data from face to face questionnaires under growers circumstances is the original material for the study. Apart from this, other resources like researches, publications, reports, statistics and web pages related to the subject are used. A field study was conducted in 2005 in Akhisar and the villages where olive production is widely done.

In the study parameters like cultivation techniques, land situation, type pattern, input use, harvest and product evaluation was used, as well as parameters like olive production, domestic and foreign distribution channels, marketing and export amounts. In this frame, taking into consideration on the and off years due to the periodicity of olive production, the data was collected from 144 questionnaires in 17 villages of Akhisar. In field study randomly sampling method was implemented. The evaluation of the data gathered was done according to the SPSS (Statistical Package for Social Sciences) Statics programme.

Olive production areas in Akhisar: In our country, the olive which is produced in 45% of 81 provinces (36 provinces) on a total of 600 thousand ha consists 2% of the total agricultural land and 22% of vineyard-garden lands (Aksu *et al.*, 2003). Manisa which comes fourth after the other olive producing provinces Aydın, İzmir and Muğla, has an 11,59% proportion, land covered is 428,136 decares. Akhisar comes first with its 48,83% portion in Manisa. In Akhisar the olive is grown on 186,962 decares (Manisa Province Agriculture Directorship, 2005a).

When looked at the capability classes of the present land usage forms in Akhisar district, the olive is produced on 1,091 ha of 1st class land, 497 ha of 2nd class land, 5206 ha of 3rd class lands, 354 ha of 4th class land, 1,778 ha of 6th class land, 701 ha of 7th class lands (Manisa Governship, Province of Manisa Environment and Forest Directorship, 2004).

The villages with intensive olive production areas in Akhisar district were selected for the questionnaire. In those villages olive production lands in 2005 are shown in the Table 1.

Table 1: The villages with olive production land (2005) in Akhisar district

Village name	Land (decares)
Akselendi	820.2
Balıca	16,920.5
Beyoba	1,106.4
Dereköy	9,674.1
Erdelli	4,729.8
Işikköy	3,279.5
İsaca	144.0
Kayalıoğlu	2,222.5
Medar	4,405.0
Seğirdim	1,470.4
Selvilı	2,210.4
Sındelli	5,535.2
Süleymanlı	7,976.0
Sünnetçiler	5,556.4
Tütenli	5,346.2
Yatağan	7,191.8
Zeytinliova	17,015.1

Resource: Manisa province agriculture directorship, Year (2005b) data

Land amount allocated to olive production by producers: When looked at, the amount of the land allocated to olive growing by producers who answered our questionnaire was; In Balıca people who allocated all their land to olive growing was 72.7%, in Erdelli 50%, in Işikköy 50%, in Medar 55%, in Selvili 81.3%, Sındelli 50%, Süleymanlı 59.1%, Sünnetçiler 61.5%, in Tütenli 60%. Where as in Yatağan and Zeytinliova producers allocated all their lands to olive growing.

On year table olive production amounts: The villages whose table olive production amounts are 5000 kg or under in an on year of olive producing are Işikköy, Kayalıoğlu, Medar, Seğirdim, Sındelli, Selvili and Süleymanlı, Akselendi. Villages Beyoba, Erdelli, Sünnetçiler, Tütenli, Yatağan, Zeytinliova are between 10,000 and 15,000 kg.

Off year table olive production amounts: The villages whose table olive production amounts are 5000 kg or under in an off year of olive producing are Beyoba, Akselendi, Erdelli, Işikköy, Kayalıoğlu, Medar, Seğirdim, Sındelli, Selvili and Süleymanlı, Sünnetçiler, Zeytinliova Villages Dereköy and Yatağan are between 10,000 and 15,000 kg.

On year olive for oil production amounts: The villages whose olive for oil production amounts are 5000 kg or under in an on year of olive producing are Akselendi, Balıca, Dereköy, Erdelli, Işikköy, Kayalıoğlu, Medar, Seğirdim, Selvili, Süleymanlı, Sünnetçiler and Yatağan. The amount is 6000 kg in Beyoba and 10,000 kg in Tütenli.

Off year olive for oil production amounts: The villages whose olive for oil production amounts are 5000 kg or

under in an off year of olive producing are Akselendi, Dereköy, Erdelli, Işıkköy, Kayalıoğlu, Medar, Seğirdim, Selvili, Sindelli, Sünnetçiler, Tütenli, Yatağan, Zeytinliova. The amount is 8000 kg in Ballica.

Most produced olive types in respect to villages: Villages growing Domat are Beyoba, Dereköy, Sindelli, Sünnetçiler, Tütenli, Zeytinliova; Villages growing Trilye (Gemlik) are Akselendi, Dereköy, Erdelli, Kayalıoğlu, Medar, Seğirdim, Selvili, Sindelli, Tütenli, Yatağan; Villages growing Uslu are Ballica, Dereköy, Erdelli, Işıkköy, Sindelli, Sünnetçiler, Yatağan, Zeytinliova; Villages growing Ayvalık (Edremit) are Kayalıoğlu, Selvili, Süleymanlı, Sünnetçiler, Tütenli, Yatağan.

Irrigation method: It was determined that in Akhisar in general, the drip irrigation is preferred with 56.5%. This is followed by furrow irrigation with 24.6. Villages that only use drip irrigation are Ballica, Dereköy, Erdelli, Isaca, Sünnetçiler and Tütenli. Seventy five percent in Medar and 50% in Akselendi and Seğirdim are using the furrow irrigation. Sixty percent in Süleymanlı and 50% in Beyoba, Kayalıoğlu and Seğirdim are using the furrow irrigation method too.

Diseases appearing in an olive grove: In whole Akhisar Verticillium wilt is 33.3%, olive knot is 20.1% and the proportion of land without any diseases is 6.9%. Villages where Verticillium wilt appeared among producers who answered the questionnaire are Akselendi, Beyoba, Dereköy, Seğirdim, Sindelli, Süleymanlı, Sünnetçiler, Tütenli, Yatağan, Zeytinliova; villages where olive knot appeared are Ballica, Erdelli, Işıkköy, Seğirdim. In Selvili no diseases appeared among producers who answered the questionnaire.

Pests appearing in an olive grove: Pests found in Akhisar in general are olive fruit fly with a 4.2% proportion, olive psyllid with 2.8%, olive plant caterpillar with 2.8%. The villages where olive fruit fly appeared are Ballica, Beyoba, Dereköy, Işıkköy, Kayalıoğlu, Selvili, Sünnetçiler; villages where olive scale appeared are Akselendi, Ballica, Kayalıoğlu, Zeytinliova, Tütenli; villages where olive psyllid appeared are Akselendi, Beyoba, Işıkköy, Zeytinliova, Medar.

Protection against diseases and pests: Villages using chemical protection are Akselendi, Ballica, Beyoba, Dereköy, Kayalıoğlu, Medar, Seğirdim, Selvili, Sindelli, Yatağan and Zeytinliova. Villages that are not using any method are Erdelli, Süleymanlı and Sünnetçiler.

RESULTS AND DISCUSSION

Turkey has an important place in world olive production. Whereas in Turkey, the Aegean Region has approximately 75% of the present olive tree amount (Tunalıoğlu, 2003). In the Aegean region Manisa province is 4th in respect to olive tree existence. Akhisar is in 1st. place in Manisa with its 80%. Proportion. The number of trees which was 4,788,000 in 1998 in Akhisar (Akay and Tetik, 1999) reached 10,000,000 in 2005 (Akhisar District Agriculture Directorate, 2005).

In Akhisar the amount of the land allocated to olive tree growing by producers who answered the questionnaire was more than 50% of the land they possess. And when the present land usage forms were examined in Akhisar it was determined that olive production is mostly made on 3rd class lands. In 1st, 2nd and 3rd class lands wet and dry field agriculture can be made. As it is known 3rd class lands have high threat factors relating to soil, topography and surface current; the variety of crops are lesser than 1st and 2nd class lands; they need special protection measures. Third class lands can be used for wet agriculture, dry agriculture, vineyard-garden, olive growing, meadow-range, woods, heathery.

Olive, because of its genetic properties, as well as insufficient cultural processes shows periodicity (the condition of giving fruit one year, giving less or no fruit the next year). In recent years product periodicity tendency in Turkey has been slowly disappearing as the result of intensive agriculture implementations. Due to this, in Akhisar in on years average table olive production amount is between 5000 and 10,000 kg. Whereas an off year average production amount is again between 5000 and 10,000 kg. On year average olive for oil production amount is 5000 kg and under, off year olive for oil production amount shows a similar tendency.

It was determined that in the villages of Akhisar Domat, Trilye, Uslu and Ayvalık types are produced, but in recent years producers give more importance to Domat type.

It was observed that producers in Akhisar understood the importance of drip irrigation and this method of irrigation is being used in more lands. Apart from this it was determined that some producers use drip irrigation by a computer controlled automation system.

When diseases and pests in olive groves were examined, it was found that the proportion of diseases and pests does not pass 50% and that proportion is decreasing at the result of the cultural measures taken. In respect of olive diseases and pests, it was determined that the variety of diseases and pests observed in Akhisar are rather limited.

CONCLUSIONS

In conclusion our country, in connection with the importance given to the olive sector, in order to increase production and efficiency in olive growing uses all kinds of means and tools, among these agricultural research being in first place. It is believed that by creating new and modern olive groves and rejuvenation of old ones will help to increase the capacity and with the timely usage of proper cultural techniques the foreseen production increase will be achieved. Accordingly, olive growing is rapidly developing in Akhisar where there is high potential for the olive sector and new investments stimulate the local economy.

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