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Turkey

Tree Nuts Annual

Turkey Tree Nuts Annual Report 2017

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Report Highlights:
Depending on the location of orchards and regions, tree nut production was affected by bad weather conditions such as less rainfall in autumn 2016 and winter 2017 which led to drought in certain regions in which tree nut orchards are located. The cumulative rainfall between October 2016 and June 2017 was less than the normal and previous-year values. The rain fall during the spring increased in all regions, except Marmara region compared to normal values. However such an increase has not led to an increase in the production of tree nuts except hazelnut. Also, the frost in late March and April and unexpected May and June hail storms in certain regions, created production losses of tree nuts in MY 2017. Pistachio is the most negatively affected commodity with around 50 percent loss of production compared to the previous year due to weather conditions and being off-year.Post forecasts pistachio production at 80,000 metric ton (MT), walnut production 58,000 MT and almond production at 14,100 MT in MY 2017.Hazelnut is the least affected commodity by weather conditions and there is a considerable increase in hazelnut production in MY 2017 compared to the previous year. Post forecasts hazelnut production at 700,000 MT in MY 2017, up from 460,000 MT last year.

Commodities:

Pistachios, Inshell Basis
Almonds, Shelled Basis
Walnuts, Inshell Basis

Report Highlights:

Depending on the location of orchards and regions, tree nut production was affected by bad weather conditions such as less rainfall in autumn 2016 and winter 2017 which led to drought in certain regions in which tree nut orchards are located. The cumulative rainfall between October 2016 and June 2017 was less than the normal and previous-year values. The rain fall during the spring increased in all regions, except Marmara region compared to normal values. However such an increase has not led to an increase in the production of tree nuts except hazelnut. Also, the frost in late March and April and unexpected May and June hail storms in certain regions, created production losses of tree nuts in MY 2017.

Pistachio is the most negatively affected commodity with around 50 percent loss of production compared to the previous year due to weather conditions and being off-year.

Post forecasts pistachio production at 80,000 metric ton (MT), walnut production 58,000 MT and almond production at 14,100 MT in MY 2017.

Hazelnut is the least affected commodity by weather conditions and there is a considerable increase in hazelnut production in MY 2017 compared to the previous year. Post forecasts hazelnut production at 700,000 MT in MY 2017, up from 460,000 MT last year.

Executive Summary:

Depending on the location of orchards and regions, tree nut production except hazelnut was affected negatively by bad weather conditions such as less rainfall in autumn 2016 and winter 2017 which led partial drought in certain regions in which tree nut orchards are located. The cumulative rainfall between the October 2016 - June 2017 was less than the normal and previous-year values. The rainfall during the spring increased in all regions, except Marmara region compared to normal values. However, such an increase has not led to an increase in the production except hazelnut. Also, frost occurred in late March and April and unexpected May and June hail storms in certain regions created production losses of tree nuts in MY 2017.

Following the past two year's "on-year" productions numbers which were the records of recent years, pistachio is the most negatively affected commodity with around 50 percent decline in production. Post forecasts pistachio production at 80,000 metric tons (MT) in MY 2017, down from 155,000 MT last year.

Due to bad weather conditions, depending on the regions and orchards, walnut and almond production were partly affected negatively which resulted in a minor amount of losses in the production of each commodity compared to last year. Walnuts are grown throughout almost all parts of the country. Due to a hotter summer season than normal, quality of walnuts also has been partly affected in the orchards

located especially in central Anatolia and some part of South East Anatolia. Post forecasts an 8 percent decline in walnut production at 58,000 MT in MY 2017, down from 63,000 MT last year. This amount is far below the amount needed to meet walnut consumption needs of Turkey. Post forecasts that walnut imports will continue due to the insufficient production and high quality walnut demand in the Turkish market.

Almond is also grown in most parts of the country. Almonds, similar to walnut, were partly affected from the late spring frosts which occurred in March and April and hail storms in April and May depending on the location of orchards and region in MY 2017. Post forecasts a slight decline of 6 percent to 14,100 MT in almond production in MY 2017, down from 15,100 MT last year. Post forecasts that almond imports will also continue due to demand for high quantity and quality almonds in the Turkish market.

Hazelnut is the least affected commodity due to weather conditions in MY 2017. There is a considerable increase in hazelnut production in MY 2017. Post forecasts hazelnut production as 700,000 MT in MY 2017, up from 460,000 MT of last year.

PISTACHIO

Production

Pistachio production is highly cyclical and yields vary dramatically from year to year and between regions and orchards in Turkey. Although MY 2016 had been expected to be "off-year" in the pistachio production normal cycle, it became "on-year" and reached the record of recent years in the production at 155,000 MT, up from 130,000 MT of previous year which was another record of the recent years. South East Anatolia has been suffering from a drought which was caused by less rainfall in autumn 2016 and winter 2017. Since 95 percent of pistachio is grown in this region, production has been negatively affected by the weather conditions**.** Additionally, since the consecutive past two years were "on-year" in pistachio production and bearing trees used all nutrition reserves to increase the yields and become less productive, MY 2017 became "off-year" which results in a dramatic production decline. Although there was a rainfall increase in spring, this was not effective on pistachio production. Gaziantep and Sanliurfa provinces which represent more than half of the production were the most negatively affected area from unfavorable weather conditions in MY 2017.
Therefore, pistachio is the most negatively affected commodity in MY 2017 with around 50 percent decline in the production compared to the previous year. Post forecasts pistachio production at 80,000 MT, down from 155,000 MT last year.

Recently, producers and traders have been spending lots of efforts to break the natural production cycle "off year/on year" rule. For this reason, producers have been implementing more good agricultural practices than ever, especially in some part of South East Anatolia in the past few years. Pistachio is mostly grown in dry conditions as irrigation is not common in Turkey. However, more orchards are being irrigated against abnormal drought recent years. In November 2015, a special fertilizer which is named as "green gold" was produced specific to pistachio tree needs by the joint efforts of the

government and private sector and it was used first time in the production period of MY 2016. The fertilizer has been distributed by the municipalities to pistachio producers.
Also, research activities have been widely conducted by the universities located in Southeast and East Anatolia for better production methods and measures for plant protection for pistachio orchards. Producers and researchers predict that better variety selection and good agricultural practices will solve the problem of "cycling" and it will not be seen in the future. However, current production has still been affected negatively by weather/climate conditions and insufficient irrigation.

Pistachio production areas increased by about 25 percent and reached to 3.134.316 decar (da) (1 da = 1000 meter square (m2)). Bearing trees increased by about 30 percent and total tree number increased by about 25 percent in the last five years in Turkey. In previous years, harvest could be done ten years after planting. Due to recent practices and measures, harvest can now be done in five years after planting. Currently, the average pistachio yield is around 4 kilograms (kg)/tree.

Although pistachios are grown in more than 50 provinces in Turkey, it is a traditional product of the Southeastern Anatolia Region. The cities Gaziantep, Sanliurfa, Adiyaman, Siirt, Kilis, Kahramanmaras, Mardin and Diyarbakir are the most significant locations for commercial pistachio production and 95 percent of the total production comes from these provinces. 5 percent of pistachio production comes from Aegean, Mediterranean and Marmara regions.
Gaziantep and Sanliurfa pistachio varieties are similar, but Siirt has a distinct pistachio variety. Most Turkish pistachios are the Gaziantep (Antep) variety - thinner and smaller than the Iranian variety. Siirt pistachios, which account for about 15 percent of the total production, are somewhere between Gaziantep and Iranian pistachios. The Siirt type yields are not only higher, but fluctuate less than the Gaziantep type. In Turkey, quality is directly related to size: 90 nuts or fewer per 100 grams is considered first quality, 90-100 nuts are second quality, 100-120 nuts are third quality, and more than 120 nuts are fourth quality.

With the increasing number of new saplings planted in the Sanliurfa and Siirt regions, the production of high quality pistachios is predicted to increase in the future since pistachios are replacing olive trees especially in the rain-fed and irrigated areas. Currently, Gaziantep province has more trees than its neighboring province Sanliurfa and around 40 percent of total production comes from Gaziantep. Yields were 4kg/tree in Gaziantep, 2kg/tree in Siirt, 4kg/tree in Adıyaman, 9 kg/tree in Mardin, 8kg/tree in Kahramanmaras and 14 kg/tree in Diyarbakir in MY 2016.

In recent years Aegean Region (in provinces such as Manisa, Izmir, Aydin, Denizli) and West Marmara Region (in provinces such as Canakkale, Tekirdag) have also become popular for pistachio production.

Consumption

Most of the Turkey's crop is consumed domestically and consumption varies from year to year according to availability of pistachio on the market. Traditionally, the Turkish people consume 35 percent of total production as a snack food and the rest are used in the production of confectionery, chocolate products, ice cream, especially in desserts and bakery products. Tree nuts are consumed and used as bulk in food industry especially in the producing region (South East) and neighboring regions. Packaging of tree nuts, including pistachios, has doubled over the last few years throughout the country, especially in the coastal regions (Aegean, Mediterranean and Marmara). Packaging mitigates food

safety and quality concerns related to high humidity in these regions. Currently, 35 percent of total tree nuts are being packaged, while it was 15 percent few years ago. Post forecasts that the packaging of tree nuts, including pistachios, will increase consumption over time. Current per capita consumption is around 1.6 kg/year in Turkey.

Pistachio stocks vary considerably from year to year in line with cyclical production. Moreover, pistachio production, trade and stock amounts have not been registered neither by the Government of Turkey (GOT) nor related unions in the sector. According to tree nut producers, if GOT supported products via incentives, then producers would register their products to get incentives. This would leads to products being registered so that reliable stocks and trade numbers could be achieved, which would partly prevents artificial price fluctuations especially in low production years. These fluctuations have a negative impact on consumption and food industry usages. Due to low production and high prices, Post forecast that pistachio consumption will decrease about ten percent in MY 2017.

Because of the low production of pistachio in MY 2017, pistachio prices are very high at the beginning of the harvest. Currently retail prices of Antep pistachio is about 75 TL/kg or US$21,18 /kg and Siirt pistachio is around 70 TL/kg or US$ 19,77 /kg since there is less amount of pistachio in the market (3,5408 TL equal to $1 USD on September 26th , 2017). Traders think that there might be a minor decrease in pistachio prices after harvest is completed.

Trade

Turkey is self-sufficient in pistachios. Usually a minor amount of total production is exported. Since the consecutive past two years were "on-year," pistachio exports increased and imports decreased in MY 2016 compared to the previous year. Export destinations were Saudi Arabia, Israel, Jordan and European Countries such as Italy and Germany.

In MY 2017, pistachio production will decrease about fifty percent compared to the past two record year. Post forecasts that exports will considerably decrease compared to the previous year to 5,000 MT since there is low production and usual domestic consumption needs.

Although there is no legal barrier to pistachio imports, there are always fewer imports than the market requires. Since production in the past two years was considerably high, imports tended to decrease. However, Post forecasts that this tendency will not continue in MY 2017 due to low production. Post forecasts pistachio imports at 10,000 MT in MY 2017.

According to the "Border Trade Legislation," pistachio had been allowed to be imported under special trade conditions through border provinces (Artvin, Ardahan, Iğdır, Ağrı, Van, Hakkâri, Şırnak, Mardin, Şanlıurfa, Gaziantep, Kilis , Hatay and Kars) located in the East and South East Anatolia. GOT excluded pistachio from the scope of this legislation in January 2017 so that pistachio is not allowed to be imported through border provinces in the scope of this legislation anymore. However, according to contacts, still considerable amount of Iranian pistachios enter Turkey illegally from especially South Eastern border provinces and are consumed domestically and some are exported as a Turkish product.

Gaziantep Commodity Exchange (GCE) will conduct a project which establishes the "Pistachio Perfection Center" in Gaziantep with the support of GOT soon. Scientific studies related to product quality and safety will be carried out in the center aiming to increase the trade and the image of Turkish pistachio.

Stocks

Pistachio stocks vary considerably from year to year in line with cyclical production. Moreover, pistachio production, trade and stock amounts have not been registered neither by the GOT nor related unions in the sector. The "Gaziantep Pistachio Industry Association" was established in 2014. The principle objective of this association is to establish a system for the registration of pistachio production and stocks. However, there is no active registration system in place yet. According to ree nut producers, if GOT support products via incentives, then producers would register their products to get incentives. This will lead to products being registered so that reliable stocks and trade numbers could be achieved which partly prevents price fluctuations. For these purposes GCE has taken some steps to increase the trade and storage of the commodity under safe (food safety) conditions after harvest. GCE got a grant from the Government of Turkey to establish a Licensed Warehouse (LW) in Gaziantep with a capacity of 10,000 MT for long term storage of pistachio under good conditions to eliminate food safety concerns such as aflatoxin. Moreover GCE thinks that the LW will also prevent price fluctuations, so, producers and traders will benefit from the LW system**.**

The past consecutive two years were "on -year" in the production and record production was achieved for pistachios. Due to low production and high price expectation in MY 2017, traders are forecasted to keep higher stocks of pistachio in MY 2017 compared to previous years. Post forecasts the stocks at 29,500 MT at the beginning of MY 2017.

Policy

The GOT stopped providing direct supports to pistachio farmers several years ago but supports the pistachio farmers who are registered in the "Farmers Registration System". Supports are announced by GOT in the middle of each calendar year. GOT offered farmers the following supports for the year 2017:

(Note: 1 US$ =3,5408 TL, on September 26th , 2017)

100TL/ da (US$ 28,24/da) and 400 TL/da (US$112,97 /da) respectively for the establishment of orchards that are planted with standard seedlings and certified seedlings
30TL to 100 TL /da (US$ 8,47 /da to US$ 28,24/da) for organic agriculture;
50 TL/da (US$ 14,12/da) for Good Agricultural Practices;
350TL/da (US$98,85/da) for biological control;
110 TL/da (US$ 31,07/da) biotechnical control;
13 TL/da (US$ 3.67/da) for fuel and fertilizer;

Marketing

The Antep Pistachio Promotion Group was established in January 2006 to organize and manage research and marketing activities to increase the consumption and exportation of Antep (which means from the region of Gaziantep) pistachios. However, GOT has abolished all sector promotion groups including the Antep Pistachio Promotion Group in August 2017. Instead, GOT established "Turkey Promotion Group" under Ministry of Economy which aims to increase export and strengthen the image of Turkish commodities, including tree nuts in international markets. Since it is a recently established Group, it is not active yet.

TUKSIAD (Turkey Dried Fruits and Nuts Traders and Businessman Association) also plays an active role to promote the consumption of tree nuts including pistachio in Turkey.

GUNEYDOGUBIRLIK, which is located in Gaziantep Province, is the only sales cooperative union for pistachios. This sales cooperative follows domestic and foreign trade issues, provides information, conducts market research, and sponsors promotional events.

ALMOND

Production

Depending on the location of orchards and regions, almond production was also affected negatively by the bad weather conditions in MY 2017. There was less rainfall in autumn 2016 and winter 2017 which led to partial drought in certain regions in which almond orchards are located. The cumulative rainfall between October 2016 - June 2017 was less than the normal and previous-year values. The rainfall during the spring increased in all regions, except Marmara region compared to normal values. However such an increase has not led to an increase in the almond production. Frost occurred in late March and April and also unexpected May and June hail storms in certain regions, created about six percent losses of almond production to 14,100 MT in MY 2017, compared to previous year.

Although almond is grown in most parts of the country, it has been accepted as marginal tree, considered a minor crop and not cultivated commercially in Turkey for many years. Ministry of Forestry and Water Affairs (MINFWA) has been conducting "Private Afforestation Projects" for almost 30 years with the target of afforestation and improving of non-arable lands and also improving of rural economy by leasing the forest and government-owned lands to the population living in the villages nearby those areas and private sector as well. Almond has been one of the most planted trees with around 45 percent of total trees in the scope of these projects. In regions such as Central and Eastern Anatolia, lands which are mostly not suitable for almond production due to shallow, low quality soil, eroded , hilly, stony and rocky with high pH or lime have been planted by almond trees. It has been thought that almond is a wild species and does not require special care while growing. That is why it has been planted in those non-arable lands which have been marginal lands in terms of climate and soil. For example, Ankara Province which is located in Central Anatolia is among the leading provinces in which almond is planted despite severe winter conditions and late spring frost. Insufficient care of trees is another reason why most of these projects were unsuccessful.

Despite the increase of areas in almond production due to above mentioned afforestation projects, almond production has not increased for many years. Turkey is currently a net importer of almonds. Since imports and prices rise continuously in recent years, the GOT has taken another action to decrease imports and increase domestic production. As a result, the "Almond Action Plan" was prepared by the MINFWA for the period 2013-2017.

In the scope of this Plan, 8 million almond seedlings were planned to be planted within 5 years. MINFWA's implementation of the Plan again focuses on increasing forest area rather than agricultural production. Therefore, Post forecasts that the increased number of trees will not contribute significantly to almond production. The Plan itself has not been implemented successfully because of mainly bad weather conditions in the past three years. 5,8 million almond trees has been planted up to now in the scope of the Plan.

The GOT also encourages producers to establish new orchards by allocating free land for 49 years and some interest-free financial support and supports farmers registered in the "Farmers Registration System" for using certified seedlings in these orchards. As a result of these incentives and government support, the establishment of almond orchards has become popular in Turkey and the private sector has concentrated on commercial production in the Aegean, West Marmara, Southeastern Anatolia and Mediterranean Regions. This has resulted in establishing new almond orchards, especially in Izmir, Manisa, Mugla, Denizli, Urfa, Canakkale and Adiyaman Provinces. It is believed that these incentives will increase the production of almonds in the future. Most of the current almond production has been from unstandardized seed which results in inconsistent yields and qualities. The current the average yield for almonds is 13 kg/tree.

Consumption

Almonds are mainly consumed as snack food and limited amounts are used in the confectionary and cosmetics industries in Turkey. Per capita almond consumption was 0.66 kg/year in the recent past. The packaging of tree nuts, including almonds, has doubled over the last few years throughout the country especially in the coastal regions (Aegean, Mediterranean and Marmara). Packaging mitigates food safety and quality concerns related to high humidity in these regions. Currently, 35 percent of total tree nuts are being packaged, while it was 15 percent years ago. Post forecasts that the packaging and growing understanding of the health benefits of tree nuts, including almonds, will affect consumption positively. Currently, per capita consumption is around 1.1 kg/year. Consumption of almonds, especially as a snack, increased by around twenty percent in MY 2016 due especially to perceived health benefits and packaging of tree nuts including almond. Despite high almond prices, Post forecasts that there will be still a slight increase in almond consumption and forecasts the consumption at 34,800 MT in MY 2017.

Almond retail prices are high in Ankara at the beginning of the harvest due to low production and high exchange rate of the US$ against the TL, (for shelled roasted almond; 60-65 TL/kg or US$16,95-18,36 /kg (3,5408 TL to $1US, on September 26th , 2017). Traders predict that almond prices will slightly decrease after harvest is completed.

Trade

Turkey is a net importer of almonds and the United States continued to be the major almond supplier due to high quality in MY 2016. Chile, Uzbekistan, Ukraine and Iran are the other suppliers of almonds. There is a demand for high quality almonds in the Turkish market. Insufficient domestic production was not able to meet this demand in MY 2016. Therefore, almond import increased by almost 30 percent, at 25,000 MT. According to traders, domestic production is still far below the needs of Turkish market so import will tend to increase in MY 2017. Post forecasts a slight increase around 7 percent in almond import at 25,800 MT in MY 2017.

Importers pay 43.2 percent tax per ton on the cost, insurance and freight (CIF) value of the shipment. If the per ton CIF invoice value for in shell almond is at or below US$4,400 the tariff will be applied at US$4,400 per ton. If the per ton CIF invoice value is greater than US$4,400 the tariff will applied at the actual CIF invoice value. The tariff for shelled almonds is based on a minimum CIF per ton value of US$ 6,900, or greater. Traders prefer to import in-shell almonds as the oversight value is significantly less than shelled almonds.

HS CODE	COMMODITY	OVERSIGHT VALUE ON CIF (US$/TON*)
0802.11	In shell Almond	4,400
0802.12	Shelled Almond	6,900

*Ton: Gross Weight

Traders import in-shell and shelled almonds mainly from the United States. If almond is imported in the scope of the Inward Processing Regime, importers do not pay tax, because they commit that the imported almond will be exported after it is processed such shelled, packaged, covered by sauce etc. Main almond export destinations are Middle East and North African countries (as Iraq, Saudi Arabia, Libya, Tunisia and Algeria).

It is claimed that there is illegal almond trade over Turkey's eastern border due to mainly high custom taxes. According to contacts, Iranian almonds enter Turkey illegally and are registered in the country as produced domestically and then exported with labels indicating Turkish origin. It is very difficult to estimate the amount of illegal almonds entering Turkey.

Policy

Turkey is currently a net importer of almonds. The GOT supports almond farmers who are registered in the "Farmers Registration System". Supports are announced by GOT in the middle of each calendar year. GOT offered farmers the following supports for the year 2017:

(Note: 1 US$ =3,5408 TL, on September 26th , 2017)

100TL/ da (US$ 28,24/da) and 400 TL/da (US$112,97 /da) respectively for the establishment of orchards that are planted with standard seedlings and certified seedlings
30TL to 100 TL /da (US$ 8,47 /da to US$ 28,24/da) for organic agriculture;

50 TL/da (US$ 14,12/da) for Good Agricultural Practices;
350TL/da (US$98,85/da) for biological control;
110 TL/da (US$ 31,07/da) biotechnical control;
13 TL/da (US$ 3.67/da) for fuel and fertilizer;

There are no subsidies, taxes or other restrictions on almond exports. There is no legal barrier to almond imports, but high tariffs are the key issue.

Marketing

There is no specific organization to promote Turkish almonds. TUKSIAD (Turkey Dried Fruits and Nuts Traders and Businessman Association) actively promotes the establishment of almond orchards and the consumption of almonds in Turkey, as well as represents importers and sellers of almonds in Turkey.

A recently established "Turkey Promotion Group" under Ministry of Economy aims to increase exports and strengthen the image of Turkish commodities including tree nuts in international markets. However it is not active yet.

WALNUT

Production

Although walnuts are grown throughout the country, most of the walnut production is from domestic and unstandardized seed which results in inconsistent yields and qualities. Depending on the location of orchards and regions, walnut production was affected negatively by the bad weather conditions in MY 2017. Less rainfall in autumn 2016 and winter 2017 led to partial drought in certain regions in which walnut orchards are located. The cumulative rainfall between October 2016 - June 2017 was less than the normal and previous-year values. The rainfall during the spring increased in all regions, except Marmara region compared to normal values. However such an increase has not led an increase in the walnut production in MY 2017. In addition, frost occurred in late March and April and also unexpected May and June hail storms in certain regions, created about 8 percent losses of walnut production to 58,000 MT in MY 2017, compared to the previous year. This amount is still far below Turkey's demand for walnuts, especially for high quality walnuts.

Despite the fact that walnuts are grown throughout the country, Turkey is currently a net importer of walnuts. Depending on the year, around 55 percent of total consumption is supplied through imports.

MINFWA has been conducting "Private Afforestation Projects" for almost 30 years with the target of afforestation and improving of non-arable lands and also improving of rural economy by leasing the forest and treasure lands to the population living in the villages nearby those areas and private sector as well. After almond, walnut has been one of the most planted trees with around 30 percent of total trees in the scope of these projects. In regions such as Central and Eastern Anatolia, the lands which are

mostly not suitable for walnut production due to shallow, sloppy, eroded , stony and rocky with high pH or lime have been planted. Death of many plants has been observed due to *Armillaria* disease (especially in Aegean region), which is a common disease in forest lands, and *Phytophthora* disease (especially in South Anatolia region). Irrigation is mostly not available in these lands either and delivering the water to the plots is costly, especially on slopes. It has been thought that like almond, walnut does not require special care while growing. That is why it has been planted in those non-arable lands which have been marginal lands in terms of climate and soil. More than two hundred projects have failed due to unsuitable land preferences and/or lack of regular horticultural practices. Despite the increase of areas in walnut production due to above mentioned afforestation projects, walnut production has not been increased for many years. Turkey is still net importer of walnuts.

Since imports and prices rise continuously in recent years, the GOT has taken another action to decrease imports and increase domestic production of walnut. As a result, the "Walnut Action Plan" was prepared by the MINFWA for the period 2012-2016. In the scope of this Plan, 5 million walnut seedlings were planned to be planted during this 5 year period. As with the Almond Plan, MINFWA's implementation of the Walnut Plan focused again on increasing forest area rather than agricultural production. The areas selected for these seedlings have the same deficiencies as the lands dedicated to almonds, such as high soil PH, shallow soil depth, and increased risk of root disease. Post forecasts that the increased number of trees in the forest area will not significantly contribute to walnut production either. Moreover, the Action Plan has not been implemented successfully because of the bad weather conditions in the past years. Around 3 million walnut trees were planted within this Plan.

Until 1970, walnuts had been propagated only by seeds and therefore, until the last decade, it was very difficult to find established orchards of standard cultivars. However, the importance of propagation by grafting and budding is now understood and as a result, orchards established of standard cultivars are becoming increasingly widespread. Currently, the major problem for walnut producers in Turkey is low yields. The average yield is around 30 kg/tree. There is great need for improved varieties. Yalova Horticulture Research Institute, which is located in Marmara Region, is Turkey's leading walnut research facility and the developer of new varieties. Commercial production of the improved varieties developed by this institute has begun in Balikesir, Denizli, Bursa and Kahramanmaras provinces.

GOT encourages producers to establish new walnut orchards by allocating free land for 49 years and some interest-free financial support and supports farmers who are registered in the "Farmers Registration System" for using certified seedling in these orchards. These incentives, supports, increased demand and high domestic market prices have encouraged walnut cultivation in recent years and establishment of walnut orchards has become very popular in Turkey. Private sector has concentrated on commercial walnut production in especially Aegean, Marmara, Southeastern Anatolia and Mediterranean regions. New walnut orchards for commercial purposes have been established in Izmir, Manisa, Mugla, Denizli, Kutahya, Balikesir,Bursa, Canakkale, Tekirdag, Aydin, Sakarya, Bitlis, Bingol, Urfa and Adiyaman Provinces in recent years. Chandler is becoming the most popular variety. But it is recently seen that some of orchards established by using the Chandler variety are not operating well, due to unsuitable soil characteristics and climate conditions for Chandler trees. Also, some farmers say that there are problems, especially in the process of certified seedlings, which is a government support program to increase the high quality varieties of walnut orchards in Turkey. After the walnut seedlings have been planted and start maturing, some farmers are noticing that the variety is different than the type which it had been "certified" to be. This situation leads to considerably high

losses of investments and as a result, recently some farmers/business operators are starting to leave the walnut orchard business.

Consumption

In Turkey, walnuts are commonly used in desserts. Turkish desserts such as pestil and köme are made by combining walnuts with mulberries and grapes. Walnuts are also used in baklava, ice cream, halva production, cookies/cakes, breads/bakery, and pastries and in the dried fruit industry as well. The leaves and green shells are used as a pigment in Turkey. Walnut tree has been used for the furniture industry for many years.

Walnut consumption has increased significantly in recent years due to perceived health benefits and the packaging of tree nuts, including walnuts. The predominance of walnuts in the market is sold in bulk. Turkish consumers are already purchasing walnuts regularly. Most of consumers agree that walnuts are a good ingredient to use with everyday foods. Additionally, walnuts are the second most purchased nut after hazelnuts. Per capita consumption, which was estimated in the past as 2 kg/year, is now estimated to be almost 3 kg/year.

Post forecasts a minor decrease in walnut consumption due to decrease in the production compared to the previous year and a price increase in MY 2017. Post forecasts walnut consumption at 154,300 MT in MY 2017.

Currently walnut retail prices are still high and similar to last year's prices in Ankara at the beginning of the harvest due to high exchange rate of the US$ against the TL, for shelled walnut 60-70 TL/kg or US$16,95-19,77 /kg and for in shell walnut (3,5408 TL to $1 USD on September 26th , 2016). Traders predicts that walnut prices will slightly decrease after the harvest is completed.

Trade

Turkey is a net importer for walnuts. There was around a 17 percent increase in walnut imports due to insufficient production and increasing demand of consumers because of positive perception of walnuts in MY 2016. The United States continued to be the major in-shell walnut supplier to the Turkish market. After the United States, walnut suppliers were Chile, Uzbekistan, Iran, Moldova, Ukraine, China, Bulgaria and Romania largely due to price considerations. There is strong demand for high quality walnut imports in the Turkish market. Traders agree that Turkey will continue to be a net importer of walnuts due to high quality product demand. Post forecasts a minor decrease in the walnut import at 96,000 MT in MY 2017.

Importers pay 43.2 percent tax on per ton CIF value of the shipment. If the per ton CIF invoice value for in-shell walnuts is at or below US$3,500 the tariff will be applied to US$3,500 per ton. If the per ton CIF invoice value is greater than US$3,500 the tariff will applied to the actual CIF invoice value per ton. The tariff for shelled walnuts is based on a minimum CIF per ton value of US$6,500 or greater. Traders prefer to import in-shell walnuts as the oversight value as it is significantly less than that of shelled walnuts.

Turkey's processing industry has grown in recent years. Imports of both in-shell and shelled walnuts, and exports of shelled walnuts have increased substantially. There are many claims of illegal walnut shipments entering across Turkey's eastern border due to mainly high custom taxes. At the moment it is very difficult to guess the amount of illegal tree nuts entering Turkey.

HS CODE	COMMODITY	OVERSIGHT VALUE ON CIF (US$/TON*)
0802.31.00.00.00	In-shell Walnut	3,500
0802.32.00.00.00	Shelled Walnut	6,500

*Ton: Gross Weight

Traders import walnut as in-shell from mainly the United States. If walnut is imported in the scope of Inward Processing Regime, importers do not pay tax, because they commit that the imported walnut will be exported after it is processed such shelled, packaged, covered by sauce etc. Main walnut export destinations are Iran, Iraq, Saudi Arabia, Tunisia and Algeria.

Policy

The GOT supports walnut farmers who are registered in the "Farmers Registration System" .
Supports are announced by GOT in the middle of each calendar year. GOT offered for walnut farmers the following supports for the year 2017:

(Note: 1 US$ =3,5408 TL, on September 26th , 2017)

100TL/ da (US$ 28,24/da) and 400 TL/da (US$112,97 /da) respectively for the establishment of orchards that are planted with standard seedlings and certified seedlings
30TL to 100 TL /da (US$ 8,47 /da to US$ 28,24/da) for organic agriculture;
50 TL/da (US$ 14,12/da) for Good Agricultural Practices;
350TL/da (US$98,85/da) for biological control;
110 TL/da (US$ 31,07/da) biotechnical control;
13 TL/da (US$ 3.67/da) for fuel and fertilizer;

Marketing

There is no specific organization to promote Turkish walnut. TUKSIAD (Turkey Dried Fruits and Nuts Traders and Businessman Association) actively promotes the establishment of walnut orchards and the consumption of walnut in Turkey.
In August 2017, GOT established "Turkey Promotion Group" under Ministry of Economy which aims to increase exports and strengthen the image of Turkish commodities including tree nuts in international markets. Since the Group is recently established, it is not active yet.

HAZELNUT

Turkey accounts for 75 percent of world production of hazelnuts and around 70 percent of world exports. In 2017, despite the spring frost which occurred in late April 2017, weather conditions were better than the previous year in the Black Sea region. Continuous rainfall during the spring and early summer throughout the region led to an increase in production of hazelnuts. Hazelnut was the least affected tree nut from the frost that occurred in late spring. Post forecasts hazelnut production as 700,000 MT in MY 2017, up from 460,000 MT of last year.

Although hazelnuts are grown in more than 48 provinces around Turkey, production is primarily concentrated along Turkey's Black Sea coast. Hazelnut orchards are typically located within 30 km of the coast, and inland. In the western Black Sea area, the growing region starts from Zonguldak (east of Istanbul) and extends east along the entire Black Sea and the mountains until close to the Georgian border. There are approximately 4,000,000 people directly or indirectly employed by hazelnut production in Turkey, on an area of 600,000-650,000 hectares. The Black Sea region is divided into three distinct growing areas: (1) The hilly region from Ordu to Trabzon, centered around Giresun, which in a normal year produces about 55 percent of the crop, (2) The flatter, mixed farming region west of Ordu to Samsun, which produces about 15 percent of the crop, and (3) The area west of Samsun, which produces the remaining 30 percent. Hazelnuts require relatively little effort to cultivate and inputs are low. Turkish hazelnuts usually ripen between early and late August depending on the altitude of the orchard and climatic conditions. Hazelnuts are hand-picked from the trees and dried in the sun. Harvesting takes place during several weeks in August and September. Turkey produces around 650,000 MT of hazelnuts under normal climate conditions.

Production, Supply and Demand Data Statistics:

Pistachios, Inshell Basis	2015/2016		2016/2017		2017/2018	
Market Begin Year	Sep 2015		Sep 2015		Sep 2017	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	0	0	0	0	0	0
Bearing Trees	0	40600	0	41400	0	42500
Non-Bearing Trees	0	11600	0	11900	0	17100
Total Trees	0	52200	0	53300	0	59600
Beginning Stocks	5000	5000	0	8500	0	29500
Production	130000	130000	0	155000	0	80000
Imports	10000	10000	0	8000	0	10000
Total Supply	145000	145000	0	171500	0	119500
Exports	8500	8500	0	12000	0	5000
Domestic Consumption	128000	128000	0	130000	0	114000
Ending Stocks	8500	8500	0	29500	0	500
Total Distribution	145000	145000	0	171500	0	119500
(HA) ,(1000 TREES) ,(MT)						

Almonds, Shelled Basis	2015/2016		2016/2017		2017/2018	
Market Begin Year	Aug 2015		Aug 2016		Aug 2017	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	0	0	0	0	0	0
Bearing Trees	0	5850	0	5950	0	6660
Non-Bearing Trees	0	4300	0	4550	0	4960
Total Trees	0	10150	0	10500	0	11620
Beginning Stocks	500	500	500	500	0	500
Production	14000	14000	15000	15000	0	14100
Imports	19100	19100	25000	25000	0	25800
Total Supply	33600	33600	40500	40500	0	40400
Exports	4800	4800	5500	5500	0	5100
Domestic Consumption	28300	28300	34500	34500	0	34800
Ending Stocks	500	500	500	500	0	500
Total Distribution	33600	33600	40500	40500	0	40400
(HA) ,(1000 TREES) ,(MT)						

Walnuts, Inshell Basis	2015/2016		2016/2017		2017/2018	
Market Begin Year	Sep 2015		Sep 2016		Sep 2017	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	0	0	0	0	0	0
Bearing Trees	0	7550	0	7600	0	8150
Non-Bearing Trees	0	5550	0	5590	0	6800
Total Trees	0	13100	0	13190	0	14950
Beginning Stocks	4000	4000	5500	5500	0	6800
Production	60000	60000	63000	63000	0	58000
Imports	89500	89500	105000	105000	0	96000
Total Supply	153500	153500	173500	173500	0	160800
Exports	6500	6500	6000	6000	0	6500
Domestic Consumption	141500	141500	160700	160700	0	154300
Ending Stocks	5500	5500	6800	6800	0	0
Total Distribution	153500	153500	173500	173500	0	160800
(HA) ,(1000 TREES) ,(MT)						