Expanding **Economic Ties** with Turkey: Agribusiness

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Introduction

This study aims to identify the agricultural trade potential between Armenia and Turkey by product and experience groups. In our study we are going to find the answers to the following questions: which fields are the perspective trade opportunities for Armenia and Turkey; on which product groups Armenian and Turkish export flows can be expanded; how trade liberalization between Armenia and Turkey would impact bilateral trade flows in overall and by sectors; is there any possibility to enhance the regional trade between Armenia and Turkey.

Center for Agribusiness and Rural Development (CARD), together with Eurasia Partnership Foundation (EPF), proposes a project entitled 'Expanding Economic Ties with Turkey' project in response to USAID's Request for Proposals. The project envisages to establish mutually beneficial partnerships between Agribusinesses and related stakeholders in Armenia and Turkey, as a way to improve reconciliation and rapprochement with Turkey.

The goal of the "Expanding Economic Ties with Turkey" project is to promote mutually beneficial economic partnerships and market linkages between Armenian and Turkish non-governmental counterparts in the targeted sectors of agribusiness in Armenia and Turkey.

Introduction

This goal will be achieved through the accomplishment of the following major objectives:

1.Develop and nurture lasting partnerships between non-governmental organizations, entities and businesses from Armenia and Turkey.

2.Promote Joint business activities between businesses in Armenia and Turkey.

3.Increase trade and technology exchanges between dried fruits, greenhouse and dairy processing industries and suppliers in Armenia and Turkey.

The objective of this Mapping research will build on the needs and opportunities identified as part of the sector-specific discussions, and will map the trade and input/technology exchange potential between Armenian and Turkish agricultural industries. The Mapping Research will cover the dairy processing, dried fruits, and the greenhouse sectors in South-Eastern Turkey.

The research will have a reference to policies (import subsidies, export support policies, insurance schemes, state support systems for farmers, etc.) that regulate the three targeted sectors in Turkey.

Agribusiness
Improvement Between
Armenia and Turkey

1.1Policy and Business Relations Between Armenia and Turkey

Armenia and Turkey are two neighboring countries located at the crossroads of Europe and Asia. Since 1993, and due to a number of historical and political reasons, 328 km of common land bordering the two countries has been unilaterally closed by Turkey and no official diplomatic relations have existed between these two countries since then. It is expected that, if and when the border opens, it will have a significant impact on the economies of both countries, but especially the Armenian economy which is relatively small. It is vitally important to estimate trade potential and identify sectors of the economy that will be most affected by opening the border. The governments and societies of both countries should clearly understand the economic and political significance of opening the border, not only for their countries, but for the entire region too.

In 1991 Turkey was one of the first countries to recognize Armenian independence, but the war between Armenia and Azerbaijan over Nagorno-Karabakh prompted Turkey to seal its border with Armenia and withhold normal diplomatic relations.

As well Armenia and Turkey have different opinions concerning the events of 1915: Armenian authorities pursue international recognition of these events as genocide, Turkish officials tend to view the same period as anything but genocide. Later on the political relations between Armenia and Turkey became slowly improving that was connected with the start of the process that is known as “football diplomacy”: in July 2008, Armenian President extended a public invitation to his Turkish counterpart to attend a 2010 World Cup qualifying match between the Armenian and Turkish football teams hosted in the Armenian capital in September 2008. After the historic visit, two meetings between Armenian and Turkish officials were held aiming to offer both countries a new opportunity to move forward in seeking to normalize relations. As a result on October 10, 2009 the governments of the two countries signed two Protocols on the establishment of diplomatic ties and the opening of mutual borders. However these Protocols didn’t come into legal force because they weren’t ratified by countries’ parliaments by political reasons. So in general situation has not been changed and Armenian-Turkish border is closed till the present.

Thus the only land access to and from Armenia is via Georgia and Iran. Iran is under embargo by most of the rest of the world. Transport through Georgia a few years ago was associated with bribery, restricted travel time, insecurity, and the poor quality of roads and railways. Because of this situation trucking companies based in Armenia couldn't transport goods competitively to the Black Sea or to Russia. Now-a-days transport infrastructure, the legal environment and level of development are changing rapidly. Roads are already dramatically better than they were a few years ago. At the same time Iranian and Georgian routes are very expensive thats why direct trade between Armenian and Turkish border is important to increase the trade at the South Caucasian region.

For instance, Currently, 90% of Armenian foreign trade flows are transported though Georgia and the Georgian ports of Poti and Batumi by truck or railroad. This route is extremely expensive, but there are no alternatives for Armenian exporters and importers to reach external markets. This is the main reason why transportation costs account for up to 30-40% of the total cost – some of the highest in the world. Opening the border and gaining access to the Turkish Black Sea and Mediterranean ports of Trabzon, Samsun, Mersin, etc. will significantly reduce transportation costs to European counties, the Middle East and even China. Eliminating Georgia's monopolistic position over the transit of Armenian goods will further drive down shipping costs (by as much as 20%, according to some estimates) thus lowering the price of goods.

The existing railway system linking Armenia and Turkey is the only railway connecting Turkey with the Caucasus, the Russian Federation and Central Asia. The rehabilitation of the railway links between Turkey and Armenia would be one of the most important outcomes of the border opening. The railway will provide a link for East-West shipments, connecting Caucasian and Central Asian countries and even China with European markets. The importance of railway links led to the construction of the new Baku-Tbilisi-Kars (BTK) railway connecting Turkey with Azerbaijan, via Georgia and bypassing Armenia. The railway is scheduled to become operational at the end of 2013. This project is claimed to be economically inefficient, but it appears to be very important from a political stand point. It will replace the closed Armenia-Turkey railway and will contribute to the further isolation of Armenia from regional projects.

If the border opens and the existing Gyumri-Kars railway is made operational, Armenia will partially restore its position as a transit country.

As a compromise, Armenia could suggest providing a link between Turkey and Nakhijevan, an Azerbaijani enclave that does not have direct communication with Azerbaijan. The existing railroad connection between Armenia and Nakhijevan can be reinstated at a relatively low cost, once the political decision is made.

1.2 Agribusiness Between Armenia and Turkey

Agriculture is an important sector of the economy in both countries, accounting for around 20% of GDP in Armenia and about 10% in Turkey.

When the border opens, agriculture is expected to undergo significant changes especially in the bordering regions of both countries.

The competition between Armenian and Turkish farmers will be inevitable, although it will mostly concentrate in a few sectors. Turkish agricultural-product markets and discovered that only six types of goods are cheaper in Turkey than in Armenia and may therefore create serious competition for Armenian farmers.

However, market prices can significantly differ from export prices because the Turkish agricultural industry enjoys significant state support, and export subsidy systems widely practiced in Turkey can enable Turkish farmers to export their products to Armenia at favorable prices.

Trade in agriculture is expected to intensify, especially in bordering regions. During the first few years of independence, Armenian and Turkish farmers enjoyed the benefits of cross- border trade, but after the border was closed, all interaction stopped.

The Turkish regions of Eastern and Southern Anatolia, including the provinces of Kars and Igdir, are among the least developed regions in the country.

On average, the level of poverty in these regions is several times higher compared to other Turkish regions and productivity and incomes lower than in central parts. One of the important requirements of EU membership for Turkey is the elimination of regional imbalances, so opening the Armenian border and developing economic relations with bordering regions might be an important impetus for the development of Turkey's eastern provinces.

Regional authorities in Kars, Erzurum and Igdir understand that the closed border creates high opportunity costs for their provinces and are much more supportive of opening the border than the central government.

It can be expected that after the border opens, Armenia will become a critical economic partner and market for Eastern Anatolia.

Dairy

Dried Fruits

Green House

Food Processing Machinery

Industry in Turkey

1

Dairy Industry

in Turkey

1.1 Overview

Turkish agriculture has been a major employer and contributor to GDP over the past years. One-third of the agricultural activities relate to livestock farming, involving about 2.1 million enterprises and farms. Turkey is among the 15 largest milk producers in the world.

Dairy sector is vital in Turkey since the sector is the provider of traditional consumption goods. The sector also is a part of a balanced and healthy nutrition diet. Furthermore the sector is important because:

•for the development of animal husbandry

•for the development process of regions with priority
(as a household consumption and income generating activity)

•in creation of employment opportunities in rural and less developed areas Turkey produces 12 billion liters of milk and more 50% of the milk is handled outside any formal quality control, unpasteurized and unpacked. Dairies find it difficult to obtain sufficientquantityofhighqualityrawmilk. Turkey's milk production consist of 91.5 percent cow milk, with marginal amounts of goat, sheep and buffalo milk. Production conditions vary considerably between the western and the eastern parts of the country. Western part of Turkey is more favorable for dairy farming because of the climate conditions, and this part of the country is focused more commercially oriented dairy farming. Smallholder dairy farming is more common in the eastern and northern parts of the country. In Turkish diet, dairy products have a very important place. Most common form of dairy product is yogurt and feta cheese followed by liquid milk and ayran (salted yogurt drink). Fluid milk consumption pattern of Turkey is also quite different from the most of the developed countries. For example, 40% of fluid milk production in Turkey is consumed as unprocessed fluid milk (raw fluid milk) and reached to consumer without any processing or safety controls. While about 35% of fluid milk is processed by mandras, share of the fluid milk amount processed in modern milk firms which processed fluid milk having food safety controls is only 19%.

1.2 Sector definition: sector components and importance

Production and value added

In Turkey, it is estimated that about 35 percent of the population live in rural areas. According to the results of General Agricultural Census in 2001, Turkey has 3.1 million farms and 2.1 million of them raise cattle. Farm size is determined by structural characteristics such as area of farmland, number of animals, labor and capital.

Product flows within the sector

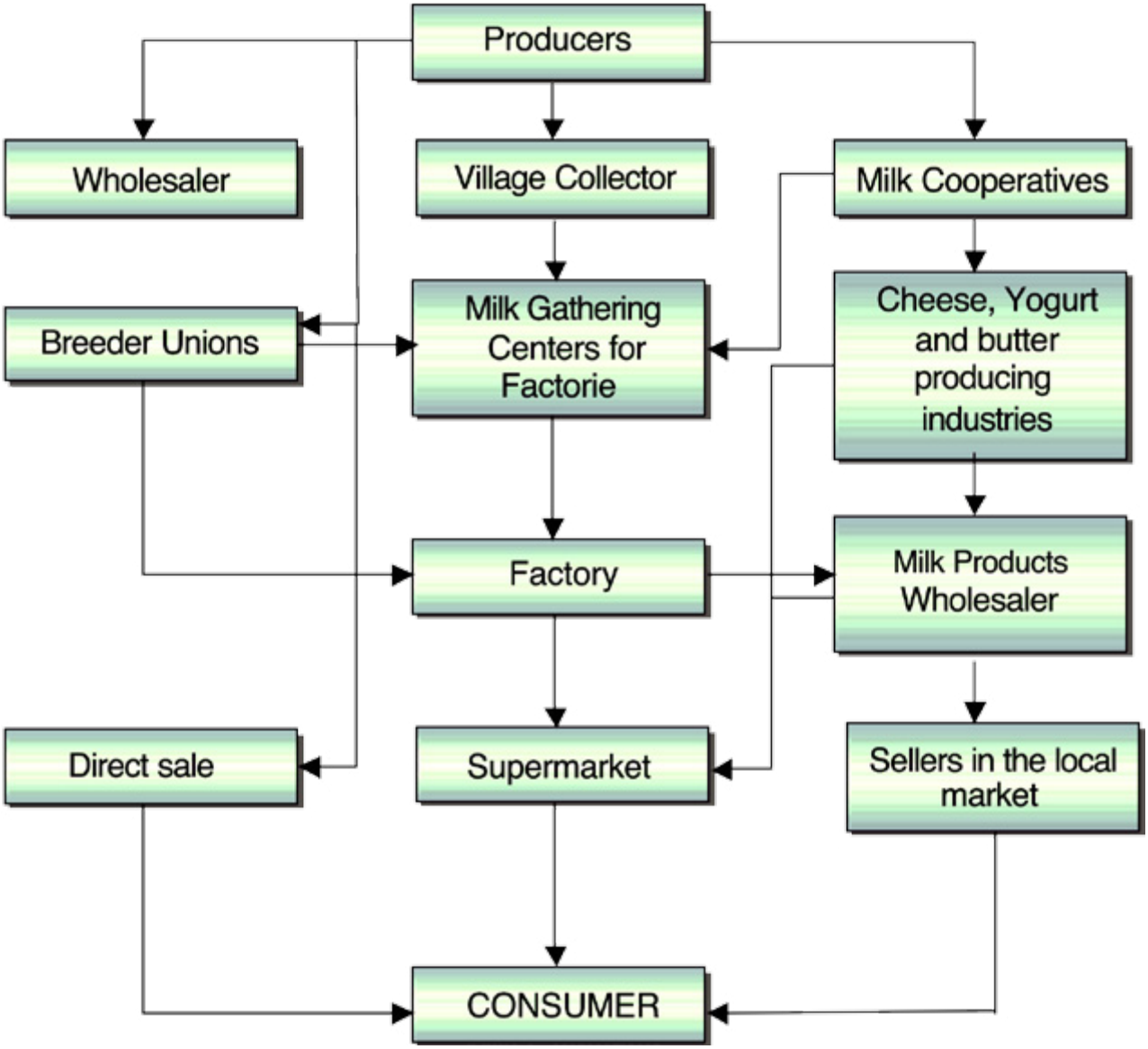
The main problem of dairy industry in Turkey is supply shortage and low quality of raw milk. Small and low efficiency farms can be the reason for this problem. The production system is not oriented to meet market demand, its main objective is to ensure self-sufficiency. The low number of cattle per farm is a result of the poor quality of the farmland and the resulting low intensity of land cultivation. Considerable differences exist between the different regions and availability of irrigation has a marked influence on cattle keeping.

Most of the Turkish dairies operate with same distribution channels. The main concern of the sector is the supply quality and the volume of the milk they purchase. The dairies operate over very long distances and at a very high cost to be able to obtain their supply.

Distribution Channels of Turkish Dairy Sector

It was estimated that there were roughly 32,700 food processing firms and overall there are more than 2000 dairy plants with total processing capacity of more than 4.5million tones in Turkey. Figure 1 shows Turkish dairy sector's distribution channels.

Figure 1. Milk and Milk Products Marketing Channels in Turkey



In recent years, the government has supported cooperatives which assist milk producers in the supply of production requirements. There are two main cooperative central unions concerned with animal production: Central Union of Development Cooperatives (Köy- Koop) founded in 1971, Köy-Koop is a multi-purposes Cooperative Union. The range of activities supported by Köy-Koop includes production of fruit and vegetables, rice, olives and olives oil, honey, tomato paste, greenhouses, kilim-carpet weaving and milk production and processing. The second one is The Central Union of Animal Cooperatives (Hay-Koop) was founded in 2003 and provides specific support to members who intend to build up animal production. Both these cooperatives unions are associated with the Agricultural Development Cooperatives under the General Directorate of Organization and Support (TEDGEM/MARA).

Especially in Marmara and Mediterranean regions there are more cooperatives operating and collecting milk every day (Table 1).

Table 1. Largest National Cooperatives Unions

Coop Union	National Union	Region	Collected milk per day (tonnes)	Number of Coops
Aksaray	Hay-Kop	Central Anatolia	100	21
Aydin	Hay-Kop	Aegean	250	22
Burdur	Koy-Koop	Mediterranean	400	216
Canakkale	Koy-Koop	Marmara	435	284
Denizli	Koy-Koop	Aegean	80	20
K ars	Koy-Koop	East Anatolia	300	
Kastamonu	Koy-Koop	Black Sea	60/30	304
Kirklareli	Koy-Kop	Marmara	555	65
Mersin	Hay-Kop	Mediterranean	120	43
Nigde	Hay-Kop	Central Anatolia	86	24

1.3 Structural features of the dairy supply chain: present situation and trends overtime

Industry structure at primary level

According to statistics, Turkey's regional distribution of milk production shifted from eastern to western regions (Table 2 and Figure 2). Marmara region's production share has increased while Southeast region's has decreased dramatically. Favorable climate condition in west, population migration from east to west, and declining public and private investment in the east and also GAP (SAP) project which promoted irrigation and helped agriculture in the area can be the some of the reasons for this shift.

Table 2. Change in regional share of cow milk production, Turkey (1980-1998)

Region	Regional Share		
	1980	1988	2012
Marmara	5.6	11.2	9.7
Aegean	11.7	17.0	17.6
Mediterranean	8.1	11.2	7.4
Central North	10.9	11.0	12.2
Central South	9.6	9.4	11.3
Central East	10.6	9.5	9.41
Black Sea	13.6	11.1	13.3
Northeast	13.5	9.7	11.6
Southeast	16.4	8.8	7.5
Turkey	100.0	100.0	100.0

Figure 2. Change in regional share of milk production

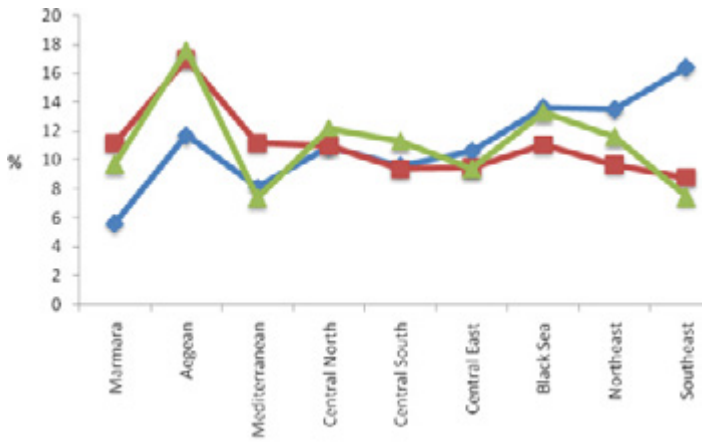


Figure 3. Agricultural Regions of Turkey

Industry structure at processing level

SEK is a milk processor company and founded in 1963 under the Ministry of Agriculture and Rural Affairs, to develop the milk production in Turkey and to offer high quality, healthy and hygienic products to the consumers. SEK was privatized in 1995 and KOC Group bought 68% of SEK shares in 1997. According to Gonenc and Tanrivermis (2008), after privatization, producer prices decreased between 11.51% and 18.45% and consumer prices of dairy products increased in general.

There are 5 private sector companies whom very powerful and have big share in the market.

•Sutas/private company in Bursa, 700/1,000 tonnes per day capacity

•Pinar/Yasar Group in Izmir and Eskisehir with a capacity of 800/1,000 tonnes per day

•Yörsan/private company in Balikesir with a capacity of 700/1,000 tonnes per day

•Danone/Danone Group in Lüleburgaz and Gönen, 1,000 tonnes per day capacity

•Ülker/Ülker Group in Adapazari with a capacity of 1,300/1,500 tonnes per day;

Bursa-based Sütas, which ranks among Turkey's top three dairies. The firm began the construction of the factory that will have a capacity to process 1,300 tons of milk a day and once completed the factory will employ 1,000 people. Sütas is also planning to establish a bait factory, farmer training center and a stud cattle farm.

Danone, which entered Turkey in 1995, considers the country to be among the "top five markets when it comes to investment priority." Danone, a French giant, will loom large with its with its capacity increase. Danone declared that they will continue to invest in Turkey in order to expand dairy products market in Turkey, The Danone Lüleburgaz state-of-the-art dairy is the most modern dairy in the Middle East.

Pinar, which is operational in Turkey's dairy sector since1975, is also planning to increase capacity due the rising demand. Yasar Holding, a major shareholder in Pinar, expects approximately 20 percent growth in 2008, said Içim Er, marketing director at the holding's Food Group.

Ülker Group, which has a share of 17.5 percent in milk and milk products sector, aims to attain a swift growth in the market. Having opened its Karaman factory a while ago, the company will start to run its plants at full capacity within the upcoming months. While continuing to renew its subsidiary Ak Gida Factory in Pamukova, Ülker is also seeking a new property for the new factory it is planning to build this year.

The main problem for the diaries is access to sufficient raw milk in terms of volume and quality. To ensure a milk supply of an acceptable quality, dairies operate on very long distances, collecting milk in collection areas of other dairies at a rather high cost.

All these dairies are SETBIR members. Their processing program comprises the full range of dairy products and they have an excellent reputation in the country.

SETBIR was established in 1978 by leading industrialists and producers engaged in Turkish livestock sector. Its primary goal is to raise public awareness on common problems facing the industry and initiate joint efforts to deal with such problems. Since its inception, SETBIR has proved to be quite successful in this endeavour and become a respectful institution within the agribusiness community.

As for going on and future activities, SETBIR intends to:

•Provide guidance for the manufacturer with respect to professional, social, technical and economic issues,

•Assist in the development of livestock farming,

•Help raising the hygienic standards of the plants and the quality of the products manufactured by the industry,

•Contribute to the search for new markets for the local processed products,

•Facilitate joint efforts of its members on issues of common benefit and provide technical support for the exertion of such efforts.

1.4 Production, consumption and trade developments

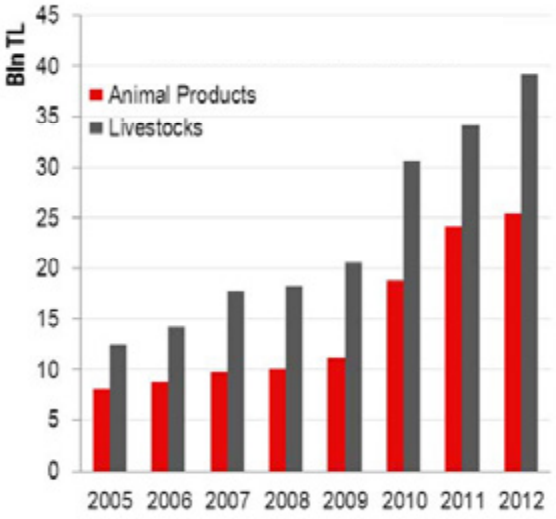
The geography of Turkey offers high potential for animal breeding and dairy farming operations.

This advantage led to higher dairy production in the 1980's primarily by increasing cow numbers while the yield per cow was steady. From the 1990's to the second half of last decade Turkish livestock production, including dairy fluctuated tremendously. Since then, support measures which were applied simultaneously to both animal breeding and feed crop production encouraged increases in the livestock sector.

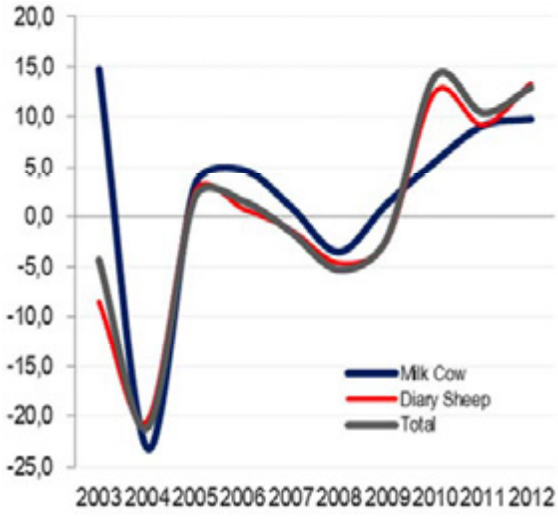
Thus, in the last two years there has been a significant increase in the animal inventory data with the increase ranging between 9-17%. While the overall milk cow population scaled up by 10%, to 5,2 million head, dairy sheep population rose to 13,1 million head, an over 13% increase from 2012.

The market value of animal products and livestock showed a steady upward trend and reached 39,2 billion TL and 25,5 billion TL respectively.

Market volue of production



Annual change in population, %

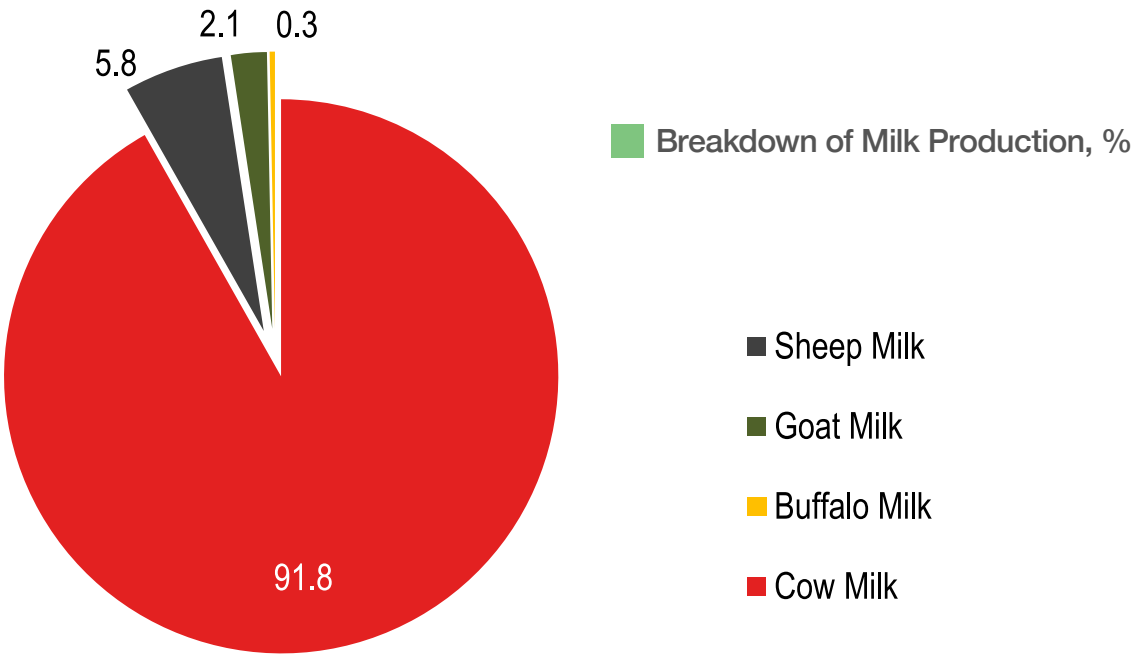


Likewise, supporting the production of unprocessed milk has been a significant stimulating factor. An interest rate reduction of 100 % for investment credits to milk cow breeding with a long grace period has boosted milk processing capacities. Furthermore, logistics investments and speeding up collection of milk has been a key point because of food safety issues.

2012 was the fifth consecutive year of steady increases in milk production. The increase in population of dairy animals combined with improved lactation yields are both driving production higher.

Collection of milk by integrated processing facilities is concentrated mainly in western, southern and south central regions of Turkey. Annual collected amounts in İzmir, Balıkesir, Konya, Aydın, Çanakkale, Denizli and Burdur exceeds 300,000 tons currently, Tekirdağ, Edirne,

Kırklareli, Bursa, Manisa and Aksaray were emerging centers in 2012.



Major Milk Collection Centers

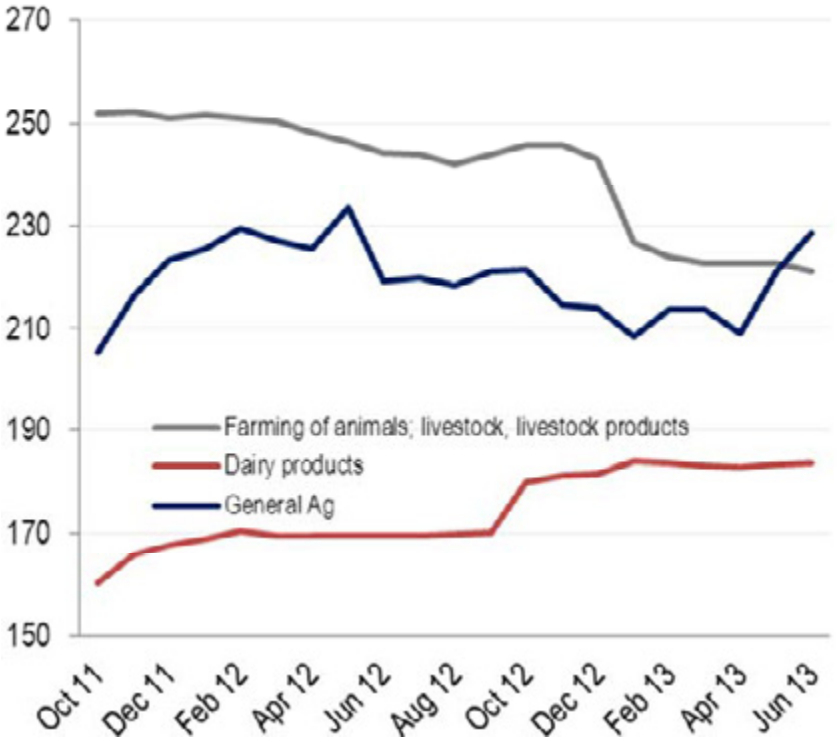
As far as feed supply is concerned, production of concentrate feed grew by 16 and 11% in 2011 and 2012 respectively. Milk cattle feed production expanded nearly 13% in 2012 compared tothe previous year. Being the major component of milk production cost, mixed feed prices jumped up by 30% in 2011 which was the highest change since 2008. In recent years there has not been a reasonable parity between raw milk and feed prices, compared to the historical relationship.

This may be considered a risk in terms of sustainability of the sector. On the other hand raw milk prices prevail at 470 $US/ton as of July 2013. The parity between retail prices and raw milk prices has been in the range of 2,6 to 2,7 since 2011.

The Producer Price Indices (PPI) for dairy products are markedly below the overall PPI numbers of the agriculture sector and livestock/livestock products for the same base year. The trend in PPI for dairy products has differed from the trends in PPI for general agricultural products, and for the animal/animal products category. Exhibit 5 above seems to be a signal of a mess in the sector.

Over 50% of the dairy farms have 10 head or fewer, which keeps the average cost of production relatively high.

PPI Numbers



On the demand side, registered data indicate the main commercial consumption lines of milk are the “drinking” milk, cheese and yogurt, which use about 14 million tons of milk equivalents annually.

Other traditional products such as butter, crème and ayran (a drink made of yoghurt) account for nearly 1 million tons of milk equivalent. Unregistered production and in-house consumption by individuals is not known exactly.

However, registered data shows a steady growth in demand. Estimates indicate that one out of five tons of milk is consumed on farm or in non-commercial channels.

The School Milk Project was launched by the Ministry of Food, Agriculture, and Livestock to boost domestic demand. On the foreign trade side, the most recent gateway came from the EU. Turkey has obtained the right to access the EU market after being banned for the last 13 years. Currently, six processing plants meet the required EU standards and can export raw milk and dairy products to the EU.

As a major trade partner of Turkey, lifting of the ban imposed by the EU is expected to affect the supply and demand pattern. The lifting of milk quotas in the EU on April 1st, 2015 will also have a significant impact on regional milk production and trade flows. How these changed milk flows will impact Turkey is a major question.

In the long run, The Transatlantic Trade and Investment Partnership (TTIP) Agreement negotiations to be held between the EU and the USA should be one of the key points to watch in this context.

For the near future, the dairy sector in Turkey may keep growing, but by way of a painful process for stakeholders, particularly for the farmers struggling with input costs. In addition, a major restructuring of the average herd size of farms might be necessary to move production higher.

ORGANIZATIONS

Turkish Milk Board

Union of Dairy, Beef, Food Industrialists and Producers of Turkey (SETBİR)

Fishery and Animal Products Exporters Association

Food and Drink Industry Associatiıns of Turkey

Packed Dairy Product Association

Milk, Meat and Stud Cattle Breeders Association (TÜSEDAD)

Profiles

PINAR

Having been the quality choice of consumers since its establishment in 1973, PINAR is a brand with a wide variety of products meeting different consumer needs in dairy, meat and drinking water product ranges. PINAR closely follows global trends and maintains its leadership in numerous product ranges. PINAR has introduced many firsts to Turkey in the food sector.

Yaşar Holding Food and Beverage Group operates under PINAR Süt (Milk and Dairy), PINAR Et (Meat Products), Yaşar Birleşik Pazarlama (Combined Marketing), Çamlı Yem Besicilik (Feed and Husbandry), PINAR Su (Drinking Water) and PINAR Foods companies with over five thousand employees.

Increasingly competitive environment of the national economy renders the need to establish strong brands greater than ever for companies. Becoming a brand of choice by consumers, maintaining sustainable profitability and expanding into international markets are possible by adhering to the requirements of branding.

SÜTAŞ

Operating since 1975 with a focus on just milk and milk products, Turkey, Macedonia and 4 plants in Romania, over 700 million liters of milk per year in process and offers 75 kinds of products consumers. In Turkey, three in every four households preferred Sütaş is one of the leading brand of milk and milk products sector.

Sütaş, the cow ate the grass from grass-table business model until the product reaches the table, managing the whole process, and audits. Naturalness and quality assurance of the product as required by this model which Sütaş, as well as production facilities; training centers, application farms, breeding breeding farms, feed mills, and operates with an integrated structure consisting of recycling and energy facilities. In the framework of regional export strategy Sütaş, the Middle East, especially the Turkic Republics, North Africa and serves 15.5 million US dollars in exports.

YÖRSAN

Yörsan's history starts with the foundation of the food trading company Yörükler Gıda Ltd, in 1964. In 1979, the company became the owner of a dairy farm in Balıkesir region and extended the trading operations to manufacturing. In 1984, Yörsan Company Inc. was born as a modern dairy manufacturer. Yörsan's successful operations continued by implementing the first white cheese line in 1984.

Yörsan has a wide range of products of over 200 SKUs in dairy products category. A perfect combination of traditional cheese flavor and regional taste is being presented to consumers all over Turkey and to the consumers of more than 20 different countries in the world.

Yörsan also has the widest range of products among all Turkish manufacturers in cheese category. Yörsan is also the first brand who presented the first homemade type of yogurt and creamy pan yogurt to Turkish consumers, as expected with a high level of appreciation from the market.

Along with its high domestic market share, Yörsan also exports to overseas on great extent. Targeting to be a World brand, Yörsan has regular exports to more than 20 countries including USA, Japan, Singapore, UAE, Cyprus and various CIS & Midlle Eastern countries.

Their aim is to present high quality, healthy, natural and tasty products to our customers by combining traditional concepts with the state of art technologies in our Susurluk plant.

Yörsan's main policy and mission is to provide continuity of regional dairy products in Turkey, promote it to the world and protect this cultural heritage.

EKER

Eker dairy was founded by Altan Eker in 1977 in Bursa exclusively producing yoghurt and ayran at the time. Eker continues to operate at the production facility that was constructed, expanded and modernized in 1982. Since the second generation members Ahmet Eker and Nevra Eker took over the management, Eker has been growing continuously undertaking new investments to enlarge and to update its dairy production technology to the world's standards.

Eker has initiated a new factory investment in 2008 in order to provide the necessary capacity for its expansion goals in the market and to meet the increasing research and development investment needs. Eker aims to quadruple the current capacity in the new factory which is moved to start operation by 2012. As of 2012, having increased its raw milk processing capacity to 600 tons per day, from that of 10 tons in 1981.

Eker manages it sales and distribution activities by its own sales team and distribution centers located in Bursa, Istanbul, Izmir, Ankara, Marmara, Aegean, Mediterranean regions and mid-south Anatolian regions. Eker reaches around 17,000 customers on daily basis, delivering 100sku of products with 250 refrigerated trucks. Eker's main product categories include ayran, yoghurt, pasteurized milk,UHT milk, butter, cream, kasar cheese, white cheese and dairy desserts: supangle, sutlac, sakizli muhallebi, keskul, chicken breast,kazandibi and cream chocolate with hazelnuts.. Eker formed its brand awareness with the market's most popular "Eker Yayık Ayran," that has long been appreciated by its unique flavor and unchanged standard taste. Eker holds around 10% of the market share on-premise ayran consumption channel in Turkey . All Eker products have Turkish Standard Institute (TSE) certificates and Food Registration and Production certificates approved by Ministry of Agriculture and Rural Affairs. Eker has Quality Management System of TS EN ISO 9001:2000 Certificate and Food Security System of TS EN 22000 Certificate.

2

Dried Fruits

in Turkey

2.1 Overview

Turkey is one of the unique countries in the world for agricultural production and the Turkey"s matchless superiority with respect to agricultural production allows her to produce many agricultural products.

Except for some tropical products, almost every kind of agricultural product can be produced on a large scale in Turkey. Dried fruits are one of Turkey"s major agricultural sectors and Turkey is the most important country in the world with respect to both the production and export of dried fruits. Turkish dried fruits" production and exports are extremely high and dominate world markets.

Among the dried fruits produced in Turkey, raisins (sultanas), dried apricots and dried figs have the lion"s share. Because of their major importance for agricultural exports, they are regarded as traditional Turkish agricultural export items. Turkey also produces and exports other kinds of dried fruits such as prunes, currants, dried apples, dried pears, dried mulberries, dried peaches etc.

2.2 Dried Fruits, Nutrition and Health

Grapes, figs and apricots are miracles from the standpoint of their composition and have been accepted as sacred fruits throughout history. Dried fruits are called nature"s candy and they are one of the most nutritious fruits in the world. They are cholesterol free, rich in vitamins and minerals, and totally fat free.

Dried fruits are a good source of fiber and also rich in antioxidants. Dried fruits are invaluable for human health and provide consumers many advantages with respect to nourishment. Dried fruits, with many of the major vitamins and minerals in their composition, are found to be useful in many functions of the human body, some of which are as follows:

•Regulation of the functioning of the brain, giving energy and helping to release stress, helping in the recovery of the liver, known to be the most important organ for storage and waste disposal in the body,

•Playing an important role in keeping the bones and teeth healthier and stronger,

•Prevention of anemia by increasing blood production. In addition to playing an important role in the therapy of ulcers, they also prevent the formation of stomach and intestinal ulcers,

•Decreasing the formation of kidney stones,

•Providing a regulatory role in the reproduction system,

•Acting as a cancer preventative,

•Making cardiac muscles stronger and the functioning of the heart more regular.

•Helping child growth, curing diseases with inflammation and fever, as well as kidney and liver diseases,

•Treating skin pigmentation diseases.

2.3 Consumption Forms Of Dried Fruits

Dried fruits are widely used in the food sector as well as being consumed as a snack.

Some consumption forms of dried fruits are as follows:

Raisins (Sultanas)

Raisins are an indispensable ingredient in breads, cakes, cookies, pies, tarts and different pastries in the bakery sector. They are an excellent addition to a wide range of candies, puddings and other wonderful confectioneries. They are mixed or added to many cereals and cereal based products like muesli logs, fruit filled cereals, nuggets and extruded breakfast cereals. They are also delicious sweeteners and texturizers in different types of yogurt, ice creams and even in some types of cheese.

Dried Apricots

Dried apricots are mostly consumed directly as a snack after being graded and may be mixed with other fruits. It is also used in bakery products, in the production of chocolate and candies, and as an ingredient in the preparation of some special sweets, like paste. The juice made from dried fruits by boiling them in water can also be consumed as refreshment after cooling the juice.

Dried Figs

Dried figs are consumed in international cuisines in many different forms including in pies, puddings, cakes, bread or other bakery products after being stewed or cooked# in jams, marmalades or in many sugar and confectionery products as a delicious ingredient. Dried figs have become an increasingly important due to their advantages with both industrial users and individual consumers such as longer shelf life, more concentrated taste, higher economic value and ease of use in almost all of the above mentioned areas of consumption compared to their use in fresh form.

2.4 Production

Raisins (Sultanas)

Turkey has 1200 different types of grapes and has been among the five major producers of grapes throughout the world with an annual average production of about 3.5 million tons. Among these varieties, seedless “Yuvarlak and Sultani” are the main varieties used for raisins. Seedless raisins are grown especially in the Aegean Region of Turkey, which is blessed with some of the most fertile land in the world, plenty of sunshine and abundant water supplies. The original name of the famous seedless Turkish raisins, $ Sultana, Sultanna, Sultanine% , comes from the fact that they were served at the Ottoman Sultans” magnificent tables during the times of the Ottoman Empire.

About 60 % of the total production in this region is seedless. Depending on foreign demand, the tendency in Turkey is towards more production without reducing quality. This has been realized both by increasing viticulture areas throughout the country and utilizing modern viticulture techniques to increase the yield. Raisin production in Turkey totalled 310 thousand tons in 2008, and with this figure Turkey accounts for nearly 30% of total world raisin production

Turkish Raisin Production
(Quantity: Tons)

Years	Quantity
2000	255.000
2001	255.000
2002	200.000
2003	215.000
2004	280.000
2005	250.000
2006	274.000
2007	240.000
2008	310.000
2009	274.000
2010	248.547
2011	268.949
2012	290.000

Dried Apricots

Turkey is at the top of the fresh and dried apricot producing countries with approximately 650 thousand tons of fresh and more than 137 thousand tons of dried apricot production in 2011. Turkey alone meets more than 20 % of the fresh apricot production and more than 80 % of the dried apricot production in the world. Apricot cultivation, which is spread across most of the agricultural regions of Turkey, finds its best environment in the Central Eastern Anatolian Region where nearly half of the crops are produced.

Apricot cultivation, which is spread across most of the agricultural regions of Turkey, finds its best environment in the Central Eastern Anatolian Region where nearly half of the crops are produced.

The most important varieties, according to the quantity produced, are Hacihaliloglu, Soganci, Kabaasi and Cataloglu.

Turkish Dried Apricot Production
(Quantity: Tons)

Years	Quantity
2000	88.000
2001	98.000
2002	63.000
2003	94.000
2004	80.500
2005	139.000
2006	90.000
2007	98.000
2008	120.000
2009	100.000
2010	95.000
2011	136.917
2012	130.000

Dried Figs

Although fig production may show variations between 45-60 thousand tons according to annual climatic conditions, Turkey ranks as the world"s largest supplier of fresh and dried figs. Turkey realizes 25 % of the world"s fresh fig production and over half of the world"s dried fig production.

Although different types of fig varieties are grown throughout Turkey, the "Sari lop" variety with its large size, sweet, fleshy, light colored character and soft skin is the main variety for dried figs. This variety, which is preferred by most of the world"s countries for its quality, is produced only in the river basins of the Big and Small Menderes Rivers in the Aegean Region.

Turkish Dried Fig Production
(Quantity: Tons)

Years	Quantity
2000	49.001
2001	48.028
2002	52.462
2003	54.571
2004	55.631
2005	56.327
2006	60.393
2007	43.500
2008	42.500
2009	50.000
2010	58.662
2011	54.000
2012	55.000

Fig production is realized principally in Aydin and Izmir provinces over a large area. This is a family business, as it requires an intensive human labor in the field when collecting the figs from trees, selecting, sorting, screening and further processing the figs into different forms.

After processing, figs acquire export names such as layer, protoben, pulled, lerida, locum, garland, macaroni, baglama, cukulata, and umbrella based on their shapes. Drying improves both storage life and the food value of the fig. Fresh figs contain 80% water and 12% sugar, however, when dried, the sugar content rises to 50%

Turkish dried fruits are grown under natural conditions, harvested and dried under controlled conditions. They are graded, stored and packaged and packed in hygienic conditions following the strict rules of internationally accepted quality control systems.

Regarding the safety of production, before being processed in the factories dried fruits are subject only to scientific and international treatments. In Turkey, organic farming, which started in 1985, has shown a tremendous progress and the dried fruits sector was the pioneer. Dried fruits still hold an important share among organic agricultural products and today 45% of the organic farmers are in the dried fruit business. Nearly 15% of dried apricots, more than 5% of raisins and around 20% of dried figs are produced by organic methods. The demand for organic fruits comes primarily from abroad (especially the EU and other western countries) and organic production is increasing in Turkey based on the demand of both domestic and foreign markets..

2.5 Exports

Dried fruits are among Turkey"s traditional agricultural export products. Turkey is the most important dried fruit exporter in the world. Nearly 15% of world dried fruit exports come from Turkey. The export figures of dried fruits both in terms of quantity and value, generally has shown an upward trend annually.

Turkey exports dried fruits to the five continents of the world and to more than 100 countries. Over 60% of the exports are directed to European Union Countries. 48% of exports were directed to 4 countries, namely UK, Germany France and the Netherlands in 2011. Apart from the EU countries, the USA, the Russian Federation, Australia and Canada are the other important destinations for Turkish dried fruits.

Turkish Dried Fruit Exports *(Q: Ton, V: US $ 1,000)*

	2009		2010		2011	
	Q	V	Q	V	Q	V
Raisins	266.685	407.436	212.628	417.546	214.064	506.456
Dried Apricots	101.244	278.880	92.687	350.597	90.321	360.907
Dried Figs	38.806	150.881	44.617	157.882	44.801	151.488

Turkish dried figs are the favorite items for Christmas in the Christian world. Also, they are keenly sought after by Moslems especially during Ramadan as well as during the periods of traditional American and Jewish holidays such as Succoth, Hanukkah and Passover.

Major Export Destinations for Raisins *(Q: Ton, V: US $ 1,000)*

	2009		2010		2011	
Countries	**Q**	**V**	**Q**	**V**	**Q**	**V**
The UK	57.231	89.793	57.968	113.001	59.554	141.401
Germany	44.560	67.697	36.381	72.677	38.786	92.253
The Netherlands	33.703	51.913	27.898	54.868	24.442	57.568
Italy	16.537	28.124	16.944	33.866	16.701	39.107
France	15.974	24.666	15.119	29.911	14.250	33.961
Australia	15.963	23.203	8.733	17.079	13.233	30.391
Belgium	10.729	16.268	10.361	19.978	10.404	24.386
Canada	9.321	13.692	4.954	9.205	5.982	13.764
Spain	3.754	5.464	3.398	6.320	3.941	9.405
Ireland	4.607	6.589	4.620	8.668	4.122	9.146
New Zealand	4.700	7.349	4.601	8.822	3.605	8.292
Russian Fed.	6.517	9.442	3.034	6.686	2.537	6.569
Switzerland	2.027	3.588	2.104	4.463	1.856	4.632
Greece	1.929	3.013	500	998	1.579	3.734
Austria	2.728	4.000	1.269	2.349	1.453	3.312
Japan	1.475	2.748	1.308	2.792	1.214	3.000
Poland	3.914	5.029	1.223	2.320	911	2.068
Algeria	3.766	5.340	1.104	1.846	804	1.945
Sweden	529	1.366	447	1.294	473	1.566
China	625	1.153	549	1.255	603	1.538
Morocco	3.120	4.993	25	57	629	1.506
Denmark	744	1.337	497	1.165	499	1.450
Romania	1.195	1.589	386	753	612	1.400
Portugal	816	1.356	600	1.165	591	1.251
Finland	296	472	356	714	399	939
Jamaica	625	1.009	548	1.027	401	886
Lithuania	1.232	1.609	83	139	245	665
South African Rep.	1.477	2.105	352	743	245	610
Ethiopia	200	590	0	0	142	483
Serbia	419	621	231	436	195	480
Bulgaria	264	321	193	370	177	460
Others	15.708	20.997	6.844	12.578	3.479	8.288
Total	**266.685**	**407.436**	**212.628**	**417.546**	**214.064**	**506.456**

It is expected that, as their nutritional and medicinal value is understood, Turkish dried fruit exports will hopefully increase further in the future.

Major Export Destinations for Dried Apricots *(Q: Ton, V: US $ 1,000)*

	2009		2010		2011	
Countries	**Q**	**V**	**Q**	**V**	**Q**	**V**
The USA	14.772	42.057	13.718	57.466	13.032	55.502
Russian Fed.	14.079	31.958	13.908	43.192	11.471	38.797
Germany	8.588	28.143	8.028	35.180	8.035	36.497
France	6.890	23.069	6.996	29.558	6.370	29.456
The UK	8.211	23.568	7.803	28.311	6.496	27.348
Australia	5.137	14.823	5.107	19.876	4.857	20.608
Brazil	2.745	7.678	3.107	12.041	3.966	16.253
The Netherlands	2.997	8.477	2.493	10.376	2.910	12.025
Spain	1.633	4.910	1.742	7.649	1.828	7.756
Canada	2.659	7.669	1.687	6.885	1.860	7.673
Italy	1.531	4.780	1.599	7.100	1.641	7.133
Ukraine	3.859	6.217	2.909	5.656	3.278	6.726
Israel	1.671	4.882	1.489	6.096	1.481	6.636
Egypt	2.302	5.945	1.662	5.734	1.681	6.515
Poland	1.988	5.433	1.914	7.982	1.634	6.340
New Zealand	1.244	3.506	1.283	4.675	1.155	4.692
Algeria	1.619	4.159	236	928	1.032	4.691
Switzerland	906	3.089	998	4.422	819	4.075
Sweden	736	2.603	605	2.611	680	3.432
Lithuania	925	2.035	828	2.312	1.184	3.388
Greece	642	1.950	516	2.323	659	3.034
Azerbaijan	916	1.760	1.382	2.687	1.379	2.972
Iraq	1.543	2.303	1.424	2.485	1.524	2.641
Denmark	817	2.736	719	3.047	515	2.488
UAE	557	1.628	443	2.007	480	2.300
Morocco	719	1.922	265	1.137	553	2.266
Slovakia	420	1.554	432	2.077	448	2.127
Czech Rep.	602	1.454	497	1.481	607	2.039
Japan	412	1.440	386	1.727	339	1.766
Belgium	321	1.016	478	1.786	473	1.755
Saudi Arabia	468	1.312	416	1.806	413	1.589
Lebanon	205	630	165	745	222	1.119
Mexico	237	656	89	360	311	1.093
South Korean	249	661	216	826	247	1.069
India	261	779	201	930	246	1.067
Latvia	746	1.827	602	1.616	361	1.043
China	73	207	54	224	241	1.027
Others	7.565	20.044	6.289	25.285	5.895	23.965
Total	**101.244**	**278.880**	**92.687**	**350.597**	**90.321**	**360.907**

Before exportation dried fruits go through sophisticated laser sorters to avoid any foreign elements. Table picking is performed by skilled quality control technicians depending on buyers" specifications. Strict standards are applied to ensure each box of dried fruits is free of mold, pests and other imperfections. Thus, Turkish dried fruits, today, are known for supreme quality and utmost cleanliness in international markets.

Today, most of the dried fruits exporter companies have been awarded the ISO and HACCP system certificates. In addition, the province of Izmir, located on the Aegean region, is the main export area for Turkish dried fruits, in which the largest dried fruit processing and exporting companies in Turkey have been established.

Major Export Destinations for Dried Figs

	2009		2010		2011	
Countries	**Q**	**V**	**Q**	**V**	**Q**	**V**
Germany	6.628	28.174	7.119	27.911	6.889	25.848
France	6.687	29.586	7.554	28.926	6.673	24.672
Italy	3.506	14.080	3.775	14.342	3.745	13.382
Russian Fed.	2.950	7.632	3.190	7.690	3.292	8.314
Switzerland	1.611	7.969	1.839	8.139	1.649	7.124
The Netherlands	1.405	4.984	1.671	5.081	2.021	6.640
The USA	1.030	3.972	1.442	5.267	1.680	5.918
Israel	922	4.231	1.195	4.658	972	3.743
Spain	1.196	4.715	1.204	4.291	1.117	3.695
Japan	483	2.594	498	2.425	760	3.584
Austria	682	2.595	783	2.842	853	3.150
Canada	810	2.778	854	2.899	903	2.956
Australia	576	2.458	852	3.311	786	2.883
Sweden	764	3.406	635	2.702	658	2.600
Slovakia	332	1.194	487	1.615	775	2.545
Brazil	813	2.180	750	1.923	852	2.491
China	63	245	32	117	783	2.296
The UK	754	3.028	712	2.679	634	2.213
Ukraine	571	1.132	486	879	919	1.933
UAE	246	1.225	405	1.626	449	1.685
Belgium	600	2.481	632	2.034	554	1.648
Egypt	457	1.555	1.015	3.162	507	1.529
Saudi Arabia	34	141	300	1.060	460	1.433
Serbia	569	1.179	480	920	618	1.335
Vietnam	0	0	765	2.181	516	1.257
Poland	323	1.099	370	1.212	411	1.230
Denmark	392	2.041	290	1.219	308	1.222
Others	4.403	14.205	5.281	16.769	5.018	14.161
Total	**38.806**	**150.881**	**44.617**	**157.882**	**44.801**	**151.488**

ORGANIZATIONS

Dried Fruit and Products Exporters Association

Dried Fruit Promotion Group

Profiles

ASO FOOD INDUSTRY

Aso Food, is domiciled in Izmir, the center of dried fruits. Aso Food are specialized in processing and packing of dried apricots, dried figs, sultana raisins,dried tomatoes, hazelnuts, and other ingredients grown in our area..

Years of experience and continuous improvement of technology combined with a deep knowledge of the traditional and genuine production methods, enable us provide a complete range of produts of unique quality , innovative and colorful packaging .....

From sourcing activities, done with contracted farmers, until the end product, Aso Food apply the strictest quality control measures in each step of production by virtue of Aso's experinced labor force and management. Products monitored by food technicians and quality control units in collaboration with our own and outside offical laboratories and institutions.

TDF - TURKISH DRIED FRUITS

A trading company established in Izmir at the heart of Aegean region of Turkey. More than 15 years, TDF have been acting in exporting of traditional Turkish dried fruits and nuts.

TDF strongly believe that competitive in traditional Turkish dried fruits and nuts. With our many years of proven experience in food business. TDF have been exporting mainly dried apricots, figs and raisin sultanas. Beside traditional Turkish dried fruits, TDF's sales volume is increasing considerably in nuts, kernels, pulses, herbs, spices, seeds and in other food products.

Actually, TDF have been supplying a wide range of ingredients to the factories and to the industrial professionals involved in the production of breakfast cereals, bread, cake, chocolate, ice cream. Although the majority of our export volume is based on bulk production, TDF also sell in retail packs for supermarkets and distributors which have a direct access to the final consumers.

IŞIK ORGANİK GIDA

From beginning as a small company, ISIK has grown into one of the largest suppliers of organic fruits and vegetables from Turkey, today having more than 1000 registered organic farmers in about 88 different villages in 4000 hectares of land all over the country. IŞIK are very proud to be the “First Turkish Company”, selling Organic Products in Turkey since 1991. IŞIK are specialized in organic and conventional fruits & nuts, IQF fruits & vegetables, both as bulk and retail packs.

Our products include:

1-A wide range of dried fruits: Sultanas, Raisins, Figs, Apricots, Prunes, Pears, Peaches, Mulberries,Tomatoes, Dates etc.

2-Nuts : Hazelnuts, Walnuts, Pine nuts, Pistachios, Almonds

3-IQF fruits & vegetables: Strawberries, raspberries, sour & sweet cherries, apricots, plums, pears, tomatoes, peppers

4-Ingredients for the industry (for fruit bars, fruit snacks, muesle / granula production or yoghurt, bakery, ice-cream, chocolate industry etc): All kind of diced and extrudiced fruits & fruit flakes; fruit pastes; tomato products as halves, diced, granulates, powder

5-Fruit puree & juice concentrates: Apricot puree, Apple juice concentrate etc.

6-Seeds, Herbs & Spices: Blue poppy seeds, sesame seeds, cumin seed, aniseed, oreganum, laurel (bay) leaves etc.

7-Pulses & Cereals: Red & green lentils, chick-peas, beans etc.

Others: Tahini, Olive oil, Vine Leaves, Leaves stuffed rice

BATA FOOD

(Bardakçı Tarım Gıda İç ve Dış Tic. Ltd. Şti.), subsidiary of BARDAKCIGROUP established at the end of 2009 in Istanbul as an exporter and supplier of agricultural products such as nuts, dried fruits, dried vegetables, fruit juice & concentrates, herbs, spices and other products coming from organic and conventional agriculture.

BATA provide a wide product range with good quality and competitive prices due to our strong business network including 40 producers. Our organic products are controlled in every process with authorized certification institutions and they carry NOP/USDA, EU, COR and TR organic certificates by ECOCERT.

BATA FOOD is, an export oriented supplier and do not have activities in local market. Due to our strong focus on foreign markets, it makes us really equipped about other countries method of working, market trends, laws and restrictions.

In every step of your import process, BATA do our best to help and manage things, so you do not need to worry about anything. BATA working together with our partners in every step of their order, before and after sale. As a result of our co-operations, BATA currently export products to 24 countries in 4 continents.

ANATOLIA- AS CO.

Oz Company was established in 1965 as a family business and since then has been the pioneer for several aspects in dried fruit business, such as the first company to build its factory nearby growers, first partnership with a foreign company, adopting laser technology in sultana processing, as well as respecting the environment by building a proper sewage system for effluent water. In 1998, ANATOLIA have enlarged our plant and installed the second production line with another laser scanner and now operating in 7.500 m2 area. With this new building and second line our annual capacity reached to 10.000 tonnes on single shift basis.

3

Green House Industry

in Turkey

3.1 Overview

Turkey lies between 36 and 42° North and 26 and 45° East. The country is characterized by a great diversity of agroecological zones. Geographically Turkey is situated in temperate region, but the diverse nature of the landscape, and the existence in particular of the mountains that run parallel to the coasts, results in significant differences in climatic conditions from one region to the other. While the coastal areas have milder climates, the inland Anatolian plateau has hot summers and cold winters with limited rainfall.

Total area is 78 million hectares of which 34 % is agricultural land. Although the share of agriculture in the Turkish economy has tended to fall over a period of several decades due to the increase in industrial and services sectors, it still accounts for a relatively larger share of total output and employment. Horticultural crops' production is the leading sub-sector of Turkish agriculture and it constitutes the backbone of the sector due to the availability of diverse ecological conditions of Turkey enabling to grow all temperate, most subtropical and some tropical products.

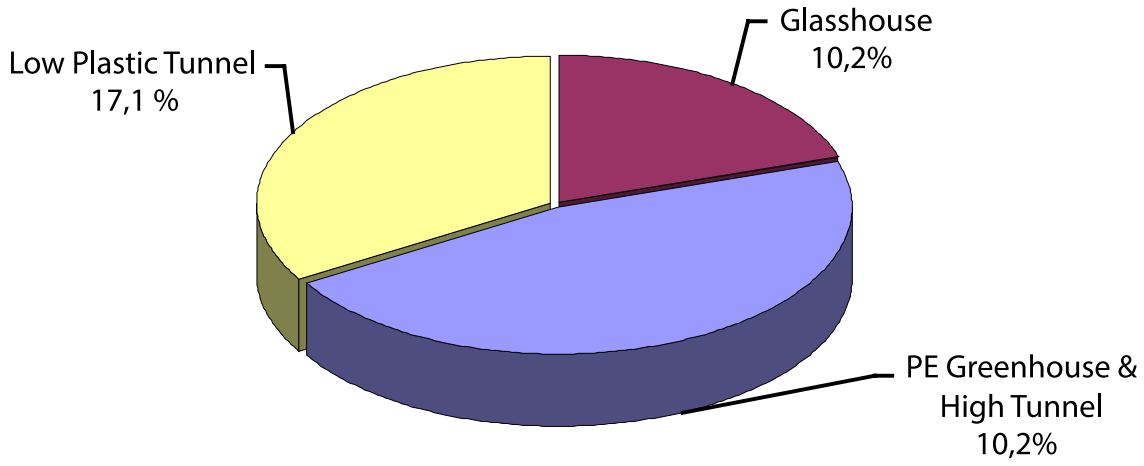
Protected cultivation has an important role in horticultural activities. There was a 6-fold increase in protected cultivation area between the years of 1980 and 2004. The important milestones were the introduction of plastics into agriculture (1960s), the rise in oil prices resulting in the increase of heating costs enhanced protected cultivation due to mild climate conditions that makes the production possible under very simple shelters (1970s), technological improvements in plastic covering materials (1980s), governmental subsidy (1990-1995), introduction of high tech greenhouses with soilless culture (1990s) and becoming of sustainable production techniques widespread (2000s).

3.2 Present Status Of Protected Cultivation

Area

Protected cultivation includes the production in the greenhouses and under low plastic tunnels. Total protected cultivation has reached to 47724 ha in 2004. Area under low plastic tunnel is 35.7% (17 054.4 ha) of the total while the rest (30 718.8 ha) is occupied by greenhouses (Anon., 2004) (Fig. 1).

Distribution of low plastic tunnels, glasshouses, PE greenhouses and high tunnels (%).



92.6% of greenhouses and 93.5% of low plastic tunnels is located on the south coast of the country where the climatic conditions are favourable for protected cultivation without any additional heating (Table 1).

Distribution of low plastic tunnels, glasshouses, PE greenhouses and high tunnels (%).

REGIONS	Glasshouse	PE Greenhouse	High Tunnel	Low plastic tunnel
Mediterranean	6641.9	13536.2	5485.3	15952.6
Aegean	513.1	2066.4	700.1	296.7
Marmara	10.0	488.9	89.2	3.6
Blacksea	0.8	725.1	288.1	742.6
Middle Anatolia	0.3	55.4	41.2	22.9
Southeast Anatolia	3.4	28.9	2.1	28.6
East Anatolia	0.0	24.0	18.2	7.5
TOTAL	7169.5	16924.9	6624.2	17054.5

Cultivated Crops

Vegetable growing with 96% of the total greenhouse area stands first, ornamental plants (3%) especially cut flowers occupy the second place and these are followed by fruits.

Vegetables: In 2012, among the vegetables, tomato with 46.9 % of total vegetable production under cover is the most prominent while cucumber, watermelon (in particularly under low plastic tunnels), pepper, eggplant, squash, melons and other vegetables are grown over rest of the area. Lettuce growing has an increasing tendency, as well.

Floriculture: In recent years, cut flower production has gradually increased. While cut flower production area was 860 ha in 2002, it increased to 1086 ha in 2012. The production is mainly concentrated in Mediterranean (south), Aegean (west) and Marmara (north-west) regions.

Greenhouse Technology

REGIONS	Total Area	Open Field	Protected cultivation	Glass house	PE greenhouse	High tunnel	Low tunnel
Mediterranean	2621.5	2112.2	509.3	34.9	472.7	1.6	0.1
Aegean	754.9	421.1	333.8	16.7	312.9	4	0.2
Marmara	486.2	252.3	233.9	9.6	150.3	71.8	2.2
Blacksea	3.6	1.7	1.9	-	1,8	0.1	-
Middle Anatolia	34.5	28.4	6.1	0.3	5.2	0.1	-
Southeast Anatolia	3.1	2.1	1.0	0.5	0.5	-	-
TOTAL	**3903.8**	**2817.8**	**1086.0**	**62**	**943.4**	**77.6**	**2.5**

Greenhouse Technology

Two main greenhouse types can be identified according the technology level, structure and size.

Low-technology greenhouses: They have very simple structure with plastic covering, poor climate control and, very often, roof sprinkler irrigation system or simple heaters only to protect the plants against frost damage. Conventional growing methods are used in those small scale greenhouses.

High-technology greenhouses: The investment cost is very high. They are generally built with galvanised iron support structure and glass or PE as covering material. More advanced growing technologies, including hydroponics, are used in those greenhouses. IPP techniques are used and generally Eurepgap protocol is followed for ertification process. Also they have climate control system (central heating system, forced ventilation, shading, evaporative cooling, etc. humidity control). Covering materials: A total of 76.7 % of the greenhouses are covered with plastic films (PE) and the remaining with glass.

Plastic film for covering is generally polyethylene. It lasts for one year, whereas, there are UV, UV+IR, UV+IR+AF (antifog) and UV+IR+AF+AV (antivirus) resistant PE at the market which are lasting for more.

Climate control: In the conventional greenhouses there is no regular heating. Short season crop production is preferred in order to avoid from cold weather. Also roof sprinkler irrigation and simple firewood stoves and in recent years pulsed air boiler (with LPG, wood, fuel, etc) are used only to protect the plants against frost under conditions when temperature falls below 3-5°C. In some of high-tech greenhouses geothermal energy is used for heating. In hot season shading -generally white washing- is used to reduce the solar radiation resulting in temperature decrease in the greenhouse. Insufficient ventilation is still one of the most important problems in old glasshouses and particularly in the small-size plastic houses. However, roof ventilation ratio has increased to 10-25% in recent years. Irrigation: Generally drip irrigation is used in the greenhouses. By the use of drip irrigation, water loss is decreased to the minimum.

Production Technology

Seedling production: Specialized seedling nurseries have increased in recent years. The number of the nurseries has reached to 41 with 45 ha acreage and 1.2-1.4 billion annual production capacities. In 2012 the numbers of grafted tomato and watermelon seedling were 5.6 and 4.5 billion respectively. The present demand which is around 17-18 billion grafted seedling is expected to increase to 40-50 billion ones within a few years.

Soilless culture: Production is still generally made in soil, but there is an increasing interest in the use of soilless culture techniques to overcome the problems originated from soil, and till now the soilless cultivation area has reached over 153.5 ha at farmers' level by increasing 7,7 times between the years of 2006 and 2012.

Fruit-setting methods: The use of bumble bees is gradually increased. While the number of hives used in the growing season of 1997-1998 was 3500, it increased in 2010-2011 to 35000 hives that was sufficient 20% of tomato production.

Exportation

In 2012, exports of agricultural products grew by 20.0% in comparison with the previous year, on the other hand their share in total exports decreased from 4.5% to 4.0% exports.

Among the horticultural crops, citrus has the highest share in export with 37% and followed by fresh fruits (36%) and vegetables (27%). Tomato has a share of 14% in fresh fruit and vegetable export.

The value of cut flower export is 35 billion USD and 2/3 of the production come from protected cultivation.

The main importer countries are Germany, USA, Greece, Russian Federation, Romania, The Netherlands and UK .

Good Agricultural Practices' Implementation

IPP approach was introduced in 1990s due to mainly the demand of exporters. However, producers did not obtain premium prices for their products since there was not any certification for products produced fulfilling IPP requirements. Good agricultural practises (GAP), a certificated production system, have come to agenda in 2000's with a demand coming from Europe. The problems faced in Turkish fresh fruit and vegetables export to EU has forced both producers and exporters to use EUREPGAP certification. The interest of government, local administrators and exporters to the GAP has encouraged the producers to shift GAP system in the production in particular to sustain export markets.

A regulation called as "controlled poduction in protected cultivation" has issued on 27.12.2003 by the Ministry of Agriculture and Rural Affairs in order to accelerate farmers' transition to GAP. By registering the farmers and making them familiar with record keeping related to their production system would help the small scale farms for their transitions to GAP. Also, Ministry of Agriculture and Rural Affairs has issued a regulation on 8th of September 2004 taking into consideration the EUREPGAP and other countries' implementations. The control and certification of all the elements in the production chain are fulfilled by independent bodies. Intensive research, education and extension activities related to GAP have continued widely in the country.

ORGANIZATIONS

WEST MEDITERRANEAN EXPORTERS UNION

GREEN HOUSE INVESTORS AND PRODUCERS UNION

Profiles

NASSAN

Nalbantoglu company serves more than 75 years in the steel industry. Nalbantoglu company has been producing world-class with its brand named Nassan. The company pays special attention to research and development, as a pioneer in the field of domestic and abroad, working with new technologies. The purpose of the establishment is a good raw material, using world class technology, the industry in many different sheet, profiles, pipes, iron serves in the cabinet of high quality.

Nassan branded society Nalbantoglu, integrated manufacturing plants located in Antalya, construction and agriculture is the production. The objective of the company in all three sectors is to provide timely, high quality and affordable products. The company also focused on solutions for the agricultural sector in recent years.

Seedbed and greenhouse production, a large number of projects successfully completed. Our engineers and specialists are trying to create a production suitable for all types of climate, soil and agriculture. Nassan have many successful projects and have good references in Turkey and worldwide. Nalbantoglu Nassan Systems Greenhouse, more robust than the traditional greenhouse, last longer, providing more performance. Greenhouse, corrosion problems that can occur during and after installation are eliminated by the special assembly system seamless.

AGROGEN

Genel Greenhousing Energy Investment Inc. is a group company and has been producing world class organic tomato and pepper with no GEO or hormones in the Aegean Region, the pearl of Turkey, Manisa province Turgutlu county Urganlı hot springs in its 100.000 m2 closed space on a 950.000 m2 land with geothermal supported controlled agriculture techniques. Agrogen have been exporting our product to many countries as 10% to local market, 90% to Russia, Germany, England, France, Denmark, Netherlands, and Sweden.

Agrogen have the honor of being a sought out brand in our country and overseas with the quality and taste of our product. With that in mind, AGROGEN has been following the developing greenhouse technology with its experienced staff and will do its best to carry the AGROGEN brand to a higher status in the world. Genel Greenhousing energy Investment Inc. will be building greenhouses to the whole of its 950.000 m2 land in the later years and is aiming to rise high by bringing foreign exchange to the country by exporting and employing more of the regional population.

SMYRNA

Smyrna Sera has started its operations on a 83.000 m2 land with an investment on the greenhouse sector by Akça Holding in 2007. It has expanded to an additional 114.000 m2 land with the new greenhouse construction realized in 2012 and thus reached the current 197.000 m2 production are

The most modern and hygienic facility of our age has been established with the hot water which is derived from the geothermal well belonging to Akça Enerji within Akça Holding and through which the whole greenhouse is heated and “Hydroponics” technology is used.

The production of cluster tomatoes, cherry tomatoes and sweet tomato is carried out at the Smyrna Sera where the latest technology is used.

AGROBAY

Company named Agrobay Greenhouse Import Export Industry and Trade Incorporated was established under the umbrella of the Group to realize production of natural (ecological) tomato and pepper towards fully export in the most modern and technological greenhouses by employing qualified staff to get product quality in conformity with international standards by applying latest production technologies with the advantages of unique climate and water resources that our country has.

For this purpose, a land of 1.500.000 sqm was bought in İzmir-Bergama. On this land, the first stage of 60.000 sqm plastic greenhouse was initiated for production in 2002, the second stage of 65.000 sqm plastic greenhouse in 2003, and the third stage of 80.000 sqm glass greenhouse in 2005. After the fourth stage of 80.000 sqm plastic greenhouse is initiated for production, the closed area for seedling production will reach 320.000 sqm. The company is the biggest greenhouse center not only in Middleast, the Balkans and Turkey in terms of the size of closed area but also the biggest in Europe in this size in terms of heating provided by geothermal resources.

From seed to construction, heating, cooling, air condition, irrigation,engine and equipment everything is imported from the leading countries. Our investment is mentioned not only in its region but also in Europe.

4

FOOD PROCESSING MACHINERY INDUSTRY

in Turkey

4.1 Overview

Turkey is the largest producer and exporter of agricultural products in the Near East and North Africa. Exports of agricultural commodities and food products were valued at US$ 21,6 billion in 2013 and accounted about 14.2% of Turkey's total export earnings.

Bread being the staple food of Turkey, cereals are of great importance in Turkish agriculture. In addition, Turkey has an important place among the major pulse producing countries and has the means of dominating the world trade. Turkish edible nuts and dried fruit production is quite high and dominates the world markets. Turkey's vast agricultural potential offers an extensive range of fruits and vegetables which are preserved in a variety of ways. Rapidly growing sectors of Turkey's agro industry are frozen/canned and dried fruit and vegetable industry. Utilizing the advantages of its agricultural potential, Turkey has an important place among other countries regarding the quantity and quality of its vegetable oil, especially olive oil, production. With the technological advances and increased investments realized in the last years, the milling and pastry, the sugar confectionary, chocolate and cacao products, pasta and biscuits, fishery products, poultry, drinking water, alcoholic beverages are regarded as promising sectors for Turkish agro industry. The above mentioned strong agricultural potential and Turkey's food industry, changing lifestyles and tastes due to increased industrialization and urbanization, the increase in family income, and the decrease in available time for preparing meals have all resulted in a strong food processing sector. Accordingly, a large food processing sector has accelerated the development of the food processing machinery and equipment industry in Turkey. At present, the Turkish food processing machinery and equipment industry is the most modern in the Middle East, North Africa, Balkans, Baltic and Central Asia.

The Turkish food processing machinery industry produces every kind of machinery and equipment required for food processing industry and most parts and accessories. Flour and grain mill machinery, bakery and pasta making machinery, bakery ovens, industrial machinery for food and drink preparation, machinery for extraction/preparation of fats and oils, machinery for cleaning/ sorting/grading seeds and grains, cacao and confectionery machinery, presses and crushers for wine, fruit juice and beverages, pasteurizers and sterilizers, machinery for sugar manufacture, meat and poultry processing machinery, milking machinery, dairy machinery, machinery for the preparation of fruits and vegetables, cream separators and brewery machinery are the main food processing machinery and equipments in Turkey.

The majority of food processing machinery and equipment manufacturers in Turkey range from small to medium sized companies mainly located in Istanbul, Konya, Ankara, Izmir and Gaziantep. The line of products manufactured by these companies varies substantially from highly automated equipment to manual and basic models. Moreover, food processing machinery manufacturers are increasingly focusing on research & development activities in an attempt to comply with the demand for more sophisticated machinery and greater flexibility.

The food processing machinery and equipment industry has particular importance for Turkey due to its promising export potential. In this field, manufacturing firms were producing mainly for the domestic market until 1990. After 1990, the sector has also directed its attention to foreign markets.

4.2 Exports

The Turkish food processing manufacturers/exporters follow European and international standards and norms. Companies exporting to the European Union affix the "CE Mark" under the "New Approach" Directives. The obligation to affix the "CE Mark" started in the Turkish domestic market in 2002. High engineering skills, product flexibility, continuous product development and adaptation, and efficient after-sales-services enable Turkey to export Turkish made food processing and packaging machinery and equipment all over the world at an increasing rate.

Exports of Turkish Food Processing Industry *(US $ 1,000)*

H.S. Code	Products	2010	2011	2012	2013
8417.20	Bakery ovens, including biscuit ovens	9.184	6.818	8.352	9.339
8419.31	Driers for agricultural products	2.521	3.515	4.492	3.219
8421.11	Cream separators	617	1.051	314	1.122
8434.10	Milking machinery	8.299	8.612	8.192	10.743
8434.20	Dairy machinery	10.105	8.489	5.766	9.524
8434.90	Parts of milking machinery and dairy machinery	2.786	3.998	3.595	5.024
8435.10	Presses, crushers etc. for wine, fruit juice, beverage	590	655	1.173	1.469
8435.90	Parts of presses, crushers for wine, fruit juice etc.	218	219	71	310
8437.10	Machines for cleaning, sorting or grading seed, grain or dried leguminous vegetables	17.219	17.512	14.870	15.864
8437.80	Machines to mill or work cereals or dried legumes nes.	122.806	148.648	162.999	170.645
8437.90	Parts of grain, seed, dry legumes processing equipment	26.227	24.367	30.943	30.714
8438.10	Bakery machinery and machinery for the manufacture of macaroni, spaghetti or similar products	26.699	24.444	28.483	36.947
8438.20	Machinery for the manufacture of confectionery, cocoa or chocolate	14.571	15.549	18.022	23.446
8438.30	Machinery for sugar manufacture	8.042	5.148	2.584	4.037
8438.40	Brewery machinery	0	0	19	6
8438.50	Machinery for the preparation of meat or poultry	2.177	10.134	10.895	9.507
8438.60	Machinery for the preparation of fruits, nuts or vegetables	7.280	9.256	9.426	9.570
8438.80	Industrial machinery nes for food, drink preparation	4.935	7.226	10.834	13.420
8438.90	Industrial machine parts, food, drink preparation	11.370	10.870	10.550	9.278
8479.20	Machinery for the extraction or preparation of animal or fixed vegetable fats or oils	10.688	10.377	23.801	18.057
	Total	**286.334**	**316.890**	**355.382**	**382.239**

High engineering skills, product flexibility, continuous product development and adaptation, and efficient after-sales-services enable Turkey to export Turkish made food processing and packaging machinery and equipment all over the world at an increasing rate.

Exports of Turkish Food Processing Industry by Countries *(US $ 1,000)*

Countries	2010	2011	2012	2013
Algeria	8.373	14.949	25.260	35.231
Libya	11.754	3.901	23.153	25.244
Russian Federation	14.266	24.112	24.312	24.124
Iraq	13.827	11.663	22.212	21.085
Kazakhstan	22.236	16.463	25.246	19.602
Egypt	14.692	9.900	17.503	17.969
Iran	21.588	35.021	12.647	13.181
Mersin Free Zone	8.241	6.939	5.545	13.063
Ukraine	6.289	8.497	9.308	13.041
India	2.694	6.915	6.475	12.324
Uzbekistan	7.758	10.272	10.423	11.464
Azerbaijan	21.888	13.184	15.169	10.537
Sudan	6.087	3.603	5.132	9.980
Bulgaria	6.880	4.925	5.290	9.106
U.A.E.	1.961	5.466	4.275	7.487
Germany	5.078	5.770	6.574	7.355
Morocco	3.208	4.330	7.102	6.987
Romania	4.075	5.177	7.651	6.963
Mongolia	122	6.116	2.191	6.961
Tajikistan	1.520	1.034	2.460	6.005
Other countries	103.795	118.655	117.453	104.530
Total	**286.334**	**316.890**	**355.382**	**382.239**

Profiles

STK MAKİNA

STK Makina primarily acts in different fields of including project design, manufacturing, installation, sale, application, training and technical support; in its high-end facilities located in Çark Industrial Zone of Sakarya. The company manufactures, installs and creates different solutions for a wide range of industries; including but not limited to milk collection and cooling lines; milk acquisition and pasteurization lines; pasteurized drinking milk and UHT milk lines; yoghurt, buttermilk and kephir lines, production lines for many types of cheese such as white cheese, curd cheese, kashar cheese, goyda, mozarella, cheddar, halloumi and cream cheese, fruit juice, jam, marmalade and molasses production lines, ice cream and milky dessert production lines as well as special equipment lines for facilities that produce beverages, sodas, chocolate, margarine or tomato paste.

KROMEL

Kromel, during it's history, following innovations and developments in technology, it implements advanced technology in it's facility. KROMEL, is leading services as turnkey plants,process lines, engineering services,automation, after sales services within it's new organization. KROMEL' s product portfolio is; Pasteurized Milk, Kaskhaval, White, Gouda, Mozarella, Helloumi, Processed (Block type or Spereadable type), Tounge & Braid Cheese, Yoğurt, Ayran, Smetana, Kefir, Fruity Yoghurt, Butter, Cream Production Lines and Equipments etc...

TÜRKÖZ MAKİNA

TÜRKÖZ COMPANY that manufactured within a 250 m² workshop in Anadolu Sanayi (Anadolu Industry) produced in its structure the machines which can process other products after pasteurizer in the milk sector in progressive years. Together with the rapid increase of production, it moved its factory to 2.000 m² closed and 20.000 m² open area

In the milk sector, it produces milk cooling, storage, stoning tank, milk intake and measurement, pasteurization, exchanger, white cheese, kashkaval cheese, cup yoghurt, strained yoghurt, yoghurt drink, drinking milk, curd, butter and CIP units with the latest technology.

GÖZTEPE MAKİNA

GÖZTEPE MAKİNA LTD ŞTİ, founded in 1979, manufactures machinery for the food industry with manufacturing experience over 30 years. Together with our skilled team and engineers, GÖZTEPE are continuing designing and producing processing lines for frozen/canned/dried and fresh food industries at 8.000 sqm closed area, in İnegöl/Bursa.

GÜRMAKSAN

GÜRMAKSAN LTD ŞTİ was established in 1959 by Mr. Yılmaz Gürpınar. The firm began growing up in 1980. Gürmaksan Ltd. Şti started manufacturing different kind of food processing machines in 1990. It is a family owned firm that has 4 shareholders namely Yılmaz Gürpınar, Erhan Gürpınar, Erdal Gürpınar and Mustafa Gürpınar. They performed their activities on researching and developing since 1990. The company is producing the latest machines on Tahina, Halwa, and Lokum (Turkish delight). Beside it, the company has procured useful documents i.e. EC Declaration of Conformity and took important place in the trade market. The volume of export increased tremendously in domestic and international markets, compared to the previous years. Moreover, the company expanded and known worldwide.

AGRICULTURAL POLICIES IN TURKEY

Turkish farmers are protected by extremely high tariff rates on the import of some agricultural products. According to the OECD (2011), the average rate of import duties for agricultural products in Turkey was about %60, while in Armenia the maximum effective rate was 10%, which in special cases can be increased to no more than 15%.

Extreme examples for Turkey include the import tariff on some dairy products (170%), cheese (140%), wine (70%), fresh grapes, apricots, peaches, plums, cherries (55%), fresh apples (60%), etc. (Turkish Customs Tariff 2010).

Turkish farmers are not only protected by high tariffs. They enjoy wide ranging Producers Support Programs. The main instruments of PSE system are:

• Direct income support, which is provided on a per hectare basis and is allocated directly to producers registered in the National Farmer Registration System (NFRS) for areas between 0.1-50 hectares for each production period. DIS payments are independent of crop type and level of production. In 2008, DIS was applied to over 16.4 million hectares of land (63% of total agricultural land) and 2.75 million farmers (89% of the total) registered under the NFRS. The rate of DIS payments was TRY 70 (54 USD) per hectare in 2008. DIS beneficiaries also received a so-called 'diesel payment' with an average TRY of 28.2 (22 USD) per hectare and a 'fertilizer payment' with an average TRY of 21 (16 USD) per hectare in 2008 (up to a maximum of 50 hectares)

• Insurance support scheme, which is open to all producers and covers hailstorm, frost risks to orchards and livestock, including poultry. The government reimburses 50% of insurance premium costs

• interest concession, (varies between 25-100%) for agricultural loans provided for a range of activities such as organic farming, breeding dairy cattle, livestock production, aquaculture production, stock farming, irrigation, greenhouse horticulture, etc.

• Purchasing prices that are set by marketing boards and take into account world prices, cost of production and domestic market conditions

• Export subsidies for agricultural products. They are usually announced in the Official Newspaper at the beginning of each year and are applied to exports during that year. For example, in 2008, 16 commodity chapters out of 44 eligible under Turkey's WTO commitments, received export subsidies. Export subsidies are set at a rate of 5-20% of the export value and, depending on the commodity; 14-100% of exports are eligible. The subsidies are provided to exporters in the form of deductions in their payments to public corporations, such as taxes, social insurance premium costs, telecommunication costs or energy costs.

This subsidy system enables Turkish farmers to sell their products at lower costs and may create significant competitive pressure for Armenian farmers who do not enjoy similar state support and assistance.

Collection and quality control increase the cost of raw milk for processors by between 10 to 15 %. The resulting consumer prices for dairy products and processed milk are high, which is the reason that large part of the population turning to the informal sector to obtain their supply. The modern large dairies appear to develop without any public support. Some of them produce in line with EU standards and face considerable price pressure from large supermarket chains. However for the sector to adjust to EU standards, government will need to review its support policy and introduce measures to diminish the informal sector's role.

Also border barriers maintain high price levels for dairy products on the Turkish market. Tariffs for milk products are between 45 and 150 per cent and the level of the maximum tariffs agreed upon in the WTO is 180 per cent. There are small, tariff-free import quotas for EU produce, i.e. 3,000 t of butter, 4,000 t of milk powder and 2,000 t of cheese. Turkish foreign trade in dairy products is small. Turkey imports mainly from the EU on the basis of the tariff rate quotas.

Milk producing farmers are supported with both income support and structural support in accordance with the applicable provisions of the Communiqué on Livestock Support Schemes. This legislation has been put into effect to implement the Council of Ministers' Decree No. 2005/8503. Milk producers, who sell their milk-to-milk enterprises that

are in possession of a MARA-registration and a code number for milk incentives, can obtain a subsidy according to this Communiqué. Real and legal persons that fall within the scope of this Communiqué and produce raw milk are given this support. Provincial/district agricultural directorates prepare summaries that contain personal information regarding the farmers and information on registered enterprises to which the farmer sells his/her milk as well as the invoice and receipts of revenues related to the sale of milk. These summaries are then sent on a monthly basis to Turkish Republic Ziraat Bank that in turn effects payments to the farmers. The milk incentive premium, established by MARA varies between TL 0.075 /litre and TL 0.03 /litre depending on whether the milk producers are members of an association or a cooperative Being a member of an association or a cooperative can make a difference on subsidy payments.

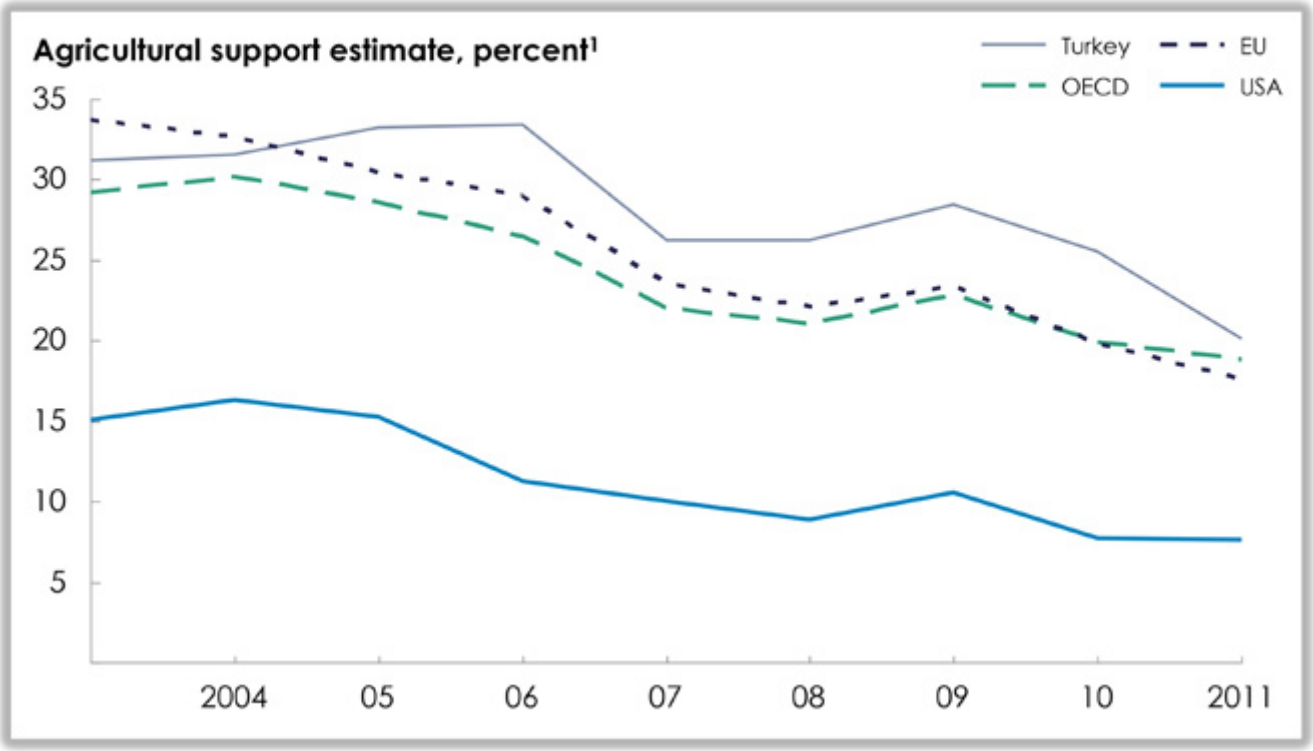
Like in many countries, Turkish agriculture is also subsidized. Levels, objectives and types of subsidies have changed over the years depending on government policy orientation. Type of the subsidy could be an income or a structural subsidy. Sometimes government used import restrictions or control on meat and meat products, dairy products, livestock, and animal feed resources and sometimes subsidized heifer and lamb distribution to producers and support improvement aid and artificial insemination applications. The government use both direct and indirect subsidy methods. The amounts of subsidized credit or the activities to be subsidized are jointly decided by the respective bank and MARA.

Income Support to farmers paid to natural or legal persons producing raw milk. Producers delivering milk to milk processing plants licensed by the MARA are eligible to obtain this support.

Conditions: have a double-wall tank, sell milk they produce to milk processing facilities with a pasteurization or UHT system, operate facilities free of diseases, be registered in the pedigree and pre-pedigree, be registered in an agricultural cooperative and own small ruminant husbandry farms.

Farmers are required to fulfill at least one of those requirements.

Government policy support to agriculture sector



There are various supports both for existing producers and investors

	Provider of the support	Target group	Production based supports	Investment based supports[1]
A Agriculture supports				
Agricultural basin model	Ministry of Agriculture	All (small and large farmers/investors)	✓	✗
Livestock breeding			✓	✗
Certified seed and seedling			✓	✗
Organic farming			✓	✗
Farm advisory services			✓	✗
Soil analysis, duel and fertilizer			✓	✗
More efficient fight against animal disease			✓	✗
B Investment incentives[2]				
General incentives	Ministry of Economy	Medium/large size investors	✗	✓
Regional incentives			✗	✓
Agricultural credits	Ministry of Agriculture		✓	✓
GAP[3] DAP programme			✗	✓
C EU-IPARD[4]	Ministry of Agriculture	Medium/large size investors	✗	✓
D Rural development support	Ministry of Agriculture	Small farmers and investors	✓	✓

A Agriculture price supports are mainly used by producers

	Content	Amount	
Basin model supports[1]	❖ Marginal payment of 11 products in 30 basins of Turkey	Krş per kg ❖ Tea: 12 ❖ Olive oil: 60 ❖ Soy bean: 50	
Livestock breeding	❖ Payments per unit of livestock production ❖ 50% higher payment for organic livestock breeding	TL per head ❖ Cattle: 350 ❖ Goat/sheep: 20 ❖ Sea bream/sea bass: 0.85	
Certified seed and seedling	❖ Payments for seedling and seed production Supports has started in 2005	TL per decare – Seedling ❖ Potato: 40 ❖ Soy: 20	TL per kg-Seed production ❖ Soy: 0.35 ❖ Clover: 1.50
Organic farming	❖ Payments for producers who are registered in farmers register system done for per unit of production	TL per decare ❖ Fruit/vegetable: 50 ❖ Field crops: 10	TL per head ❖ Cattle: 150 ❖ Goat 10
Farm advisory services	❖ Ministry of Agriculture pays agricultural producers for the advisory services	❖ 600 TL for 1 time	
Soil analysis, fuel and fertilizer	❖ Farmers having agricultural land more than 5 hectares are obliged	TL per decare	❖ TL 4 for fertilizer ❖ TL 2.9 for fuel
More efficient fight against animal diseases	❖ Payments are varied for biotechnical and biologic fight	TL per decare	❖ TL 430 for greenhouse ❖ TL 60 for open area

B New investment scheme is sector-independent and provides support to all investors

For all regions, VAT exemption, customs duty exemption for machinery and equipment purchase and 49 year of land allocation incentives are implied with the condition of minimum investment amount being TL 1 million in the 1st and 2nd regions, TL 0.5 million in other regions

Corporate and income Incentives		Regions	I	II	III	IV	V	VI
Tax reduction[1]			15	20	25	30	40	50
Social security premiums employer support	non-organized industrial zone		10% 2 years	15% 3 years	20% 5 years	25% 6 years	35% 7 years	50% 10 years
	organized industrial zone		10% 3 years	15% 5 years	20% 6 years	25% 7 years	35% 10 years	50% 12 years
Social security premiums employee support[3] Duration			No	No	No	No	No	10 years up to 124 TL per employee
Interest support[2]			No	No	3 points (TL)	4 points (TL)	5 points (TL)	6 points (TL)
Support on income tax withholding[3] for employees			No	No	No	No	No	10 years up to 113 TL per employee

B Agricultural credits

Animal production topics

Production subjects		Discount rate: Investment period	Discount rate: Operating period	Max limit TL
Breed dairy cattle raising	Up to 750,000 TL	100	50	20,000,000
	750,001-5,000,000 TL	75	50	
	5,000,001-20,000,000 TL	50	25	
Common animal production	Up to 70,000 TL	50	50	500,000
	50,001-500,000 TL	25	25	
Breeding	Meat cattle breeding	100	100	7,500,000
	Heifer breeding	100	100	7,500,000
Stock	Breeding	50	25	3,000,000
	Stockfarming	50	50	3,000,000
Ovine	Breeding	100	100	5,000,000
	Stockfarming	100	50	1,500,000
Beekeeping		50	50	1,500,000
Poultry		50	25	3,000,000
Winged sector breeding		100	100	7,500,000
Aqua culture products	Aqua culture producing	100	50	5,000,000
	Fisheries hunting	50	25	1,500,000

Plant production topics

Production subjects		Discount rate: Investment period	Discount rate: Operating period	Max limit TL
Controlled greenhouse agriculture	Up to 750,000 TL	50	50	10,000,000
	750,001-5,000,000 TL	50	25	
	5,000,001-20,000,000 TL	25	25	
Common plant production	Up to 70,000 TL	50	50	500,000
	50,001-500,000 TL	25	25	
Multi-year fodder plantation		100	75	1,500,000
Domestic licensed seed, seedling, sapling production		100	100	10,000,000
Domestic licensed seed and seedling utilization		50	50	1,000,000
Domestic licensed sapling utilization		50	50	5,000,000
Good slope/organic farming practices		50	50	5,000,000

TARGETED SECTOR

EXHIBITIONS IN TURKEY

DATE	NAME OF THE EXHIBITION	CITY
07.01.2015 - 11.01.2015	AEGEANAGRI 11TH AEGEAN AGRICULTURAL GREENHOUSE & LIVESTOCK EXHIBITION	Denizli
08.01.2015 - 10.01.2015	FRESH TÜRKİYE / FRUIT, VEGETABLES, STORAGE, PACKAGING AND LOGISTICS EXHIBITION	İstanbul
08.01.2015 - 10.01.2015	TURKISH SEEDS TECHNOLOGIES, SEED RAISING, SAPLING FAIR	İstanbul
29.01.2015 - 01.02.2015	EURASIA STOCK BREEDING 2015 5TH STOCK BREEDING, EQUIPMENT, POULTRY AND DAIRY INDUSTRY FAIR	İstanbul
29.01.2015 - 01.02.2015	AGRO EURASIA FAIR 2015	İstanbul
05.02.2015 - 08.02.2015	ANIMALIA İSTANBUL 2015	İstanbul
05.02.2015 - 08.02.2015	GAPTARIM 6.AGRICULTURE, AGRICULTURE TECHNOLOGIES AND STOCKBREEDING FAIR	Gaziantep
12.02.2015 - 15.02.2015	10.AGROEXPO EURASIA INTERNATIONAL AGRICULTURAL GREENHOUSE & LIVESTOCK EXHIBITION	İzmir
12.02.2015 - 15.02.2016	ANIMALEXPO 6. INTERNATIONAL LIVESTOCK BREEDING TEHNOLOGIES AND DAIRY INDUSTRY EXHIBITION	İzmir
18.02.2015 - 21.02.2015	KONYA 4. IRRIGATION TECHNOLOGY AND PLANT NUTRITION FAIR	Konya
18.02.2015 - 21.02.2015	KONYA STOCK BREEDING 2015 3. STOCK BREEDING, STOCK BREED PRODUCTION TECHNOLOGY, FEED INDUSTRY FAIR	Konya
18.02.2015 - 21.02.2015	KONYA SEED 2015 4. SEED TECHNOLOGIES END EQUIPMENT FAIR	Konya
19.02.2015 - 22.02.2015	BALIKESİR AGRICULTURAL FAIR 2015 BALIKESİR AGRICULTURE LIVESTOCK AND FOOD FAIR	Balıkesir
05.03.2015 - 08.03.2015	6.FOOD, AGRICULTURAL AND ANIMAL BREEDING FAIR	Muğla
05.03.2015 - 08.03.2015	MERSİN AGRODAYS	Mersin
05.03.2015 - 08.03.2015	FOTEG İSTANBUL 2015 INTERNATIONAL TRADE FAIR FOR FOOD PROCESSING TECHNOLOGIES	İstanbul
11.03.2015 - 14.03.2015	ÇUKUROVA FOOD-FOOD TECH FAIR 2015 (9TH)	Adana

DATE	NAME OF THE EXHIBITION	CITY
12.03.2015 - 15.03.2015	2. AKSARAY AGRICULTURE, STOCK BREEDING AND AGRO TECHNOLOGY FAIR	Aksaray
12.03.2015 - 15.03.2015	FLORIST 2015	İstanbul
24.03.2015 - 28.03.2015	KONYA AGRICULTURE 2015 - 13TH INTERNATIONAL AGRICULTURE, AGRICULUTURAL MECHANIZATION AND FIELD TECHNOLOGIES FAIR	Konya
26.03.2015 - 29.03.2015	4. BURSA KARACABEY AGRICULTURAL AND LIVESTOCK EQUIPMENT FAIR	Bursa
01.04.2015 - 04.04.2015	ŞANLIURFA FOOD, AGRICULTURE AND LIVESTOCK FAIR	Şanlıurfa
02.04.2015 - 05.04.2015	9. MALATYA AGRICULTURE TECHNOLOGIES MACHINE IN ANIMAL BREEDING AND EQUIPMENT EXHIBITION	Malatya
02.04.2015 - 05.04.2015	5.AGRICULTURAL FAIR	Eskişehir
07.04.2015 - 11.04.2015	DİYARBAKIR 7TH AGRICULTURE-STOCK BREEDING 2015 FAIR	Diyarbakır
09.04.2015 - 12.04.2015	5. GÖNEN AGRICULTURAL AND LIVESTOCK EQUIPMENT FAIR	Balıkesir
15.04.2015 - 18.04.2015	5. EASTERN ANATOLIA LIVESTOCK, AGRICULTURE AND FOOD FAIR	Van
15.04.2015 - 18.04.2015	AGRITECH 2015 5. FETHİYE AGRICULTURE, GREENHOUSE, LIVE STOCKBREEDING, NOURISHMENT AND AGRICULTURAL MACHINERY FAIR	Muğla
16.04.2015 - 19.04.2015	2. MAGROTEX'15 MESOPOTAMİA MARDİN AGRICULTURAL; FOOD AND LIVESTOCK EQUIPMENT FAIR	Mardin
16.04.2015 - 19.04.2015	4. AFYONKARAHİSAR AGRICULTURE, STOCKBREEDING AND AGRO TECHNOLOGY FAIR	Afyonkarahisar
16.04.2015 - 19.04.2015	ANATOLIA EXPO 2. LIVE CATTLE, LIVESTOCK, MEAT AND MEAT PRODUCTS PROCESSING TECHNOLOGIES EXHIBITION	İzmir
13.05.2015 - 15.05.2015	FI İSTANBUL 2015 3.FOOD COMPONENTS, SOLUTIONS, ADDITIVES AND INGREDIENTS FAIR	İzmir
05.03.2015 - 08.03.2015	FOTEG İSTANBUL 2015 INTERNATIONAL TRADE FAIR FOR FOOD PROCESSING TECHNOLOGIES	İstanbul
14.05.2015 - 16.05.2015	ANUFOOD EURASIA - POWERED BY ANUGA	İstanbul

DATE	NAME OF THE EXHIBITION	CITY
14.05.2015 - 17.05.2015	EXPOTROIA CENTERARY AGRICULTURAL FAIR	Çanakkale
27.05.2015 - 31.05.2015	4. THRACE AGRICULTURE FAIR, LIVESTOCK, DAIRY PRODUCTS AND SEED	Kırklareli
11.06.2015 - 13.06.2015	VIV TURKEY 2015 INTERNATIONAL TRADE FAIR FOR POULTRY TECHNOLOGIES	İstanbul
22.07.2015 - 26.07.2015	EDİRNE FOOD, AGRICULTURE, LIVESTOCK INDUSTRY FAIR	Edirne
05.08.2015 - 09.08.2015	8.ÇORLU AGRICULTURETECH 2015	Tekirdağ
13.08.2015 - 16.08.2015	DLG-ÖÇP AGRICULTURE AND TECHNOLOGY DAYS 2015	Tekirdağ
03.09.2015 - 06.09.2015	IPACK 2015 30. INTERNATIONAL PACKAGING AND FOOD PROCESSING SYSTEMS EXHIBITION	İstanbul
03.09.2015 - 06.09.2015	AGRO PRO EURASIA AGRICULTURE FAIR	İstanbul
03.09.2015 - 06.09.2015	WORLD FOOD İSTANBUL 2015 23.INTERNATIONAL FOOD & BEVERAGE, FOOD INGREDIENTS AND FOOD PROCESSING EXHIBITION	İstanbul
10.09.2015 - 13.09.2015	AGROTEC 2015 19TH INTERNATIONAL AGRICULTURE FAIR	Ankara
12.09.2015 - 15.09.2015	İNEGÖL AGRICULTURE FAIR	Bursa
16.09.2015 - 20.09.2015	SAMSUN AGRICULTURE FAIR 2015	Samsun
30.09.2015 - 04.10.2015	10. TRAKYA AGRICULTURETECH 2015	Kırklareli
14.10.2015 - 18.10.2015	BURSA 8TH INTERNATIONAL STOCKBREEDING AND EQUIPMENT FAIR	Bursa
14.10.2015 - 18.10.2015	BURSA AGRICULTURE 2015 13TH INTERNATIONAL AGRICULTURE, SEED RAISING, SAPLING AND DAIRY INDUSTRY FAIR	Bursa
15.10.2015 - 18.10.2015	İSTANBUL FOOD - TECH 2015 10TH FOOD AND BEVARAGE TECHNOLOGIES, FOOD SAFETY ADDITIVES AND INGREDIENTS	İstanbul
22.10.2015 - 25.10.2015	FOODEX İZMİR FOOD AND FOOD TECHNOLOGIES FAIR	İzmir

DATE	NAME OF THE EXHIBITION	CITY
22.10.2015 - 25.10.2015	SAMSUN FOOD 2015	Samsun
22.10.2015 - 24.10.2015	3. FRUTECH FRUIT GROWING AND TECHNOLOGY FAIR	Antalya
04.11.2015 - 05.11.2015	NFV EXCO 6. NUT, FRUIT, & VEGETABLES, TECHNOLOGIES EXHIBITION AND CONGRESS	İstanbul
05.11.2015 - 08.11.2015	MIDDLE EAST 6.FOOD FOOD-TECH FAIR	Diyarbakır
05.11.2015 - 08.11.2015	MANİSA 9.AGRICULTURE NOURISHMENT AND STOCKBREEDING FAIR	Manisa
12.11.2015 - 15.11.2015	KONYA DAIRY INDUSTRY FAIR	Konya
18.11.2015 - 22.11.2015	ADANA 9TH GREENHOUSE-GARDEN FAIR 2015	Adana
18.11.2015 - 22.11.2015	ADANA 9TH AGRICULTURE FAIR 2015	Adana
19.11.2015 - 21.11.2015	4. TOMATO GROWING AND TECHNOLOGY FAIR	Antalya
19.11.2015 - 22.11.2015	AGRICULTURE FAIR	Isparta
02.12.2015 - 05.12.2015	GROWTECH EURASIA 2015 15TH INTERNATIONAL GREENHOUSE, AGRICULTURAL EQUIPMENT AND TECHNOLOGIES FAIR	Antalya