AGRICULTURE

Agricultural Structure

Historically, the agricultural sector has been Turkey's largest employer and a major contributor to the country's GDP, exports and industrial growth. However, as the country has developed, the importance of agriculture has declined relative to the rapidly growing industry and services sectors.

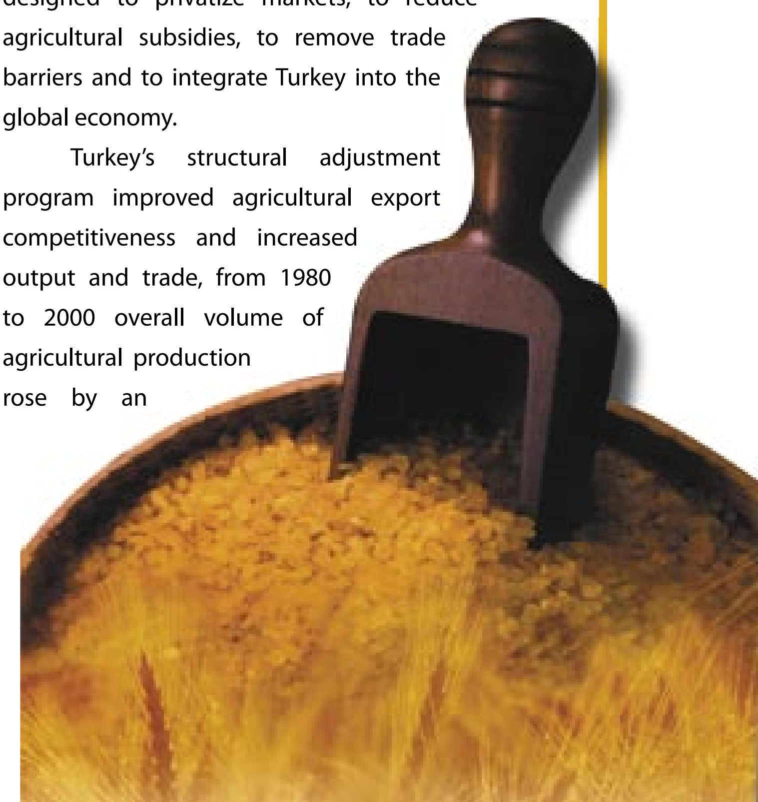
Although the share of agriculture in the Turkish economy has tended to fall over a period of several decades due to the increase in industrial and services sectors, it still accounts for a relatively larger share of total output and employment than in many other countries. Agriculture's share of GDP declined from 35 % in 1970 to 22 % in 1980 and to 7 % in 2007. Although the importance of agriculture within the GDP decreases year by year, a substantial amount of the population is still earning their living from agriculture. Crop production represents 67 % of the total agricultural production, livestock represents 26 % and the rest comprises forestry and fishery products.

Turkey is one of the largest producer and exporter of agricultural products in the Eastern Europe, Near Eastern and North African region. Despite the overall trade deficit of Turkey, the agricultural trade balance is significantly positive, providing some relief to external accounts. Trade liberalization and rising demand in the region resulted in agricultural product exports (excluding agro-industry) rising to a value of approximately USD 4 billion in 2007 and accounted for 5.7 % of Turkey's total export earnings. Total exports of agricultural and agro-industrial products have exceeded USD 9.1 billion in 2007.

Turkey has a vast agricultural resource base with significant potential to expand output, particularly through increased crop yields. In the past, the government has intervened in the agricultural sector through price supports, input subsidies, import protection, export subsidies and tax reductions. To increase food self-sufficiency and rural development, to stabilize farmers' incomes, to provide adequate nutrition and affordable food and to promote exports have been adopted among government objectives.

Since implementing its first structural adjustment program in 1980, Turkey has developed ongoing series of agricultural policy reforms designed to privatize markets, to reduce agricultural subsidies, to remove trade barriers and to integrate Turkey into the global economy.

Turkey's structural adjustment program improved agricultural export competitiveness and increased output and trade, from 1980 to 2000 overall volume of agricultural production rose by an



average of 3% per year. Output and yields of the major agricultural products increased steadily. During this period the area sown also rose by 1.5 million hectare and reached totally to 18 million hectare. While overall yields have risen, there were regional differences in fertility. Field crop yields are usually two to three times higher in the milder coastal areas (Aegean and Mediterranean regions) than in the colder and generally drier areas of central and eastern Turkey.

Over the last three decades, Turkey's population has been migrating to urban areas because of an inevitable consequence of industrialization. In 1950, the rural population represented 75 % of the total population, and then four decades later, it has dropped to 40 %. In 1980s, urbanization grew at an annual rate of 6 %.

Resources and Environment

There are economic disparities between rural and urban areas. However, the government is strengthening infrastructure, communications, and the agriculture resource base and expanding employment opportunities by upgrading local enterprises and attracting new industries. The focus of the policy is the development of the Southeastern Anatolian Project (GAP).

Irrigation is a means of reducing weather-induced production variations. Therefore, Turkey is giving high priority to improving land and water resources and expanding irrigation. It has designated about two-thirds of total public agricultural investment for land and water improvement.

Environmental degradation and resource conservation are of increasing concern to the Turkish agricultural sector. Intensifying production, especially by using chemical fertilizers, pesticides and irrigation, puts further emphasis on the environment.

Regional Agricultural Output Pattern of Turkey

Regions	Principal Products
Central-North	Cereals, rice, vegetables, pulses, fruits
Aegean	Olives, grapes, cotton, tobacco, pulses, vegetables, tubers
Marmara	Sunflower, rice, roots, sugar beets
Mediterranean	Cotton, cereals, citrus, rice, vegetables, pulses
North-East	Fodder, wheat, tubers, pulses, livestock
South-East	Fodder, cereals, tubers, vegetables, pulses, grapes, livestock, pistachio, fruits
Black Sea	Hazelnuts, tea, rice, tobacco
Central-East	Fodder, cereals, fruits, tobacco, sugar beets
Central-South	Cereals, sugar beets, grapes, pulses, vegetables, tubers, livestock

Vegetal Products

Vegetal production is the leading sub-sector of Turkish agriculture and it is mainly made up of fresh fruits and vegetables, cereals, pulses, industrial plants, and fodder crops.

In the vegetal production, the **fresh fruits and vegetables** constitute 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. The remarkable thing with the Turkish fresh fruits and vegetables industry is not only the great diversification in the number of fruits and vegetables grown but also the astonishing quantity of the total produce, approximately 12 million tons of fruits and 24 million tons of vegetables. The fresh fruits grown in Turkey mainly consist of grape-like fruits, pome fruits, stone fruits and citrus fruits according to the order of priority. Grape-like fruits led the list with a share of 29 %. Fruit bearing vegetables constitute 45 % of the total vegetable production. Among these vegetables, tomatoes take the first place with an output of 9.6 million tons and potatoes, watermelons, melons, onions and cucumbers follow this juicy vegetable.

Turkey has a major role among the important producing countries of **pulses** in the world. Over 50 countries have imported Turkish pulses in 2007. **Cereals** are also of great importance in Turkish

agriculture. Wheat, barley, rye, oats, rice, spelt, maize, canary grass and millet are the main species of cereals produced in Turkey. Wheat is the major grain produced in Turkey. Although its output stagnated in the early 1980s, it has recently expanded because of increased fertilizer and irrigation use.

Turkey is the main producer of **oriental type** tobacco in the world. Among the main industrial crops produced in Turkey, tobacco is a traditional agricultural export item of the country.

Edible Nuts and Dried Fruits

Turkish edible nuts and dried fruits production is considerably high and dominates the world markets in this respect.

Among edible nuts and dried fruits, hazelnut, pistachios, raisins, dried apricots and dried figs are of significant importance for Turkish agricultural export. Due to this importance, they are called traditional agricultural export items of Turkey.

Historical documents reveal that **hazelnut** have been grown along the Black Sea Coast in northern Turkey since 300 BC with its prominent position among hazelnut producing countries, Turkey leads the field.

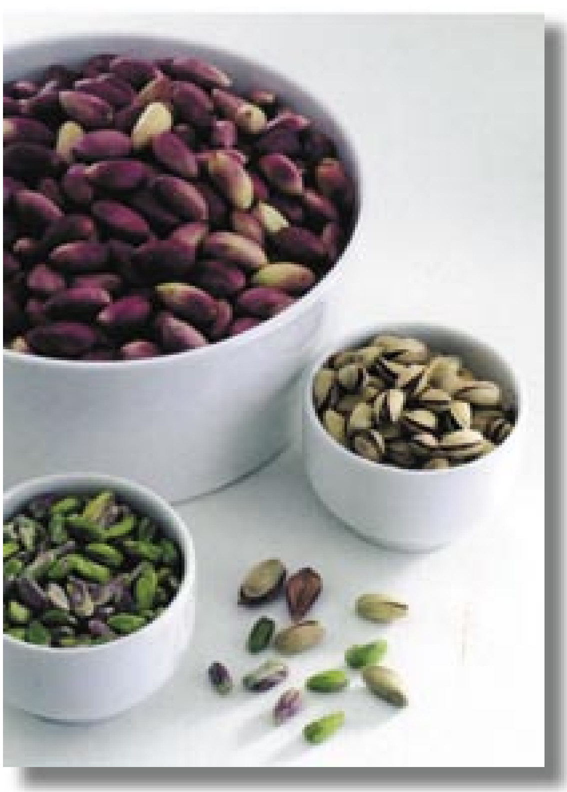


Fig cultivation is believed to belong to the Mediterranean basin, especially to Anatolia. Accordingly, local fig species (Ficus carica) derived its botanical name from the historical district, Caira, in the western part of Turkey. Producing 50-55 % of the world's total dried fig production, Turkey also has a share of 55 % in the total world exports of dried figs.

There are 1200 different types of grapes in Turkey and among these varieties, seedless "Yuvarlak and Sultani" are the main varieties used for **raisin**. Their production is considerably high and together with raisins, **dried apricots** also dominate the world markets.

Livestock

Turkey traditionally has been an important supplier of live sheep as well as lamb and mutton to the Middle East. Increasing domestic demand from a rapidly growing population, combined with the production problems have led to a significant decline in exports. However, the Turkish Government intends to develop Turkey's livestock through improving animal stocks, establishing breeding enterprises, increasing fodder crop production, raising the income levels of livestock producers, and applying a contract-farming model.

Sheep, the common goat, the Angora goat (whose homeland is capital city Ankara of Turkey) and cattle constitute the majority of the existing livestock number in Turkey. Climate and geography also have an important bearing on the location

and type of animal husbandry carried out in the country. Intensive animal husbandry is carried out in Western Anatolia and Thrace Regions. Over the past decade, the government has initiated measures to raise the productivity of its livestock sector. Some of these measures taken are genetic improvement of meat and dairy herds through dairy cattle and bull semen imports and improvement of veterinary services. Special emphasis has been placed in developing animal husbandry in the eastern and southern Anatolia regions and expanding fodder crop production.

Fishery

Turkey has been known as a country of fishery products since ancient times. Surrounded by seas on three sides, the species of fish and fishery products in the seas are different from each other because of the differences (temperature, salt content etc.) between each of the seas.

The inland resources are also very rich in Turkey. This fishery potential will increase with the completion of the Atatürk Dam in the Southeastern Anatolian Region of Turkey and will create more areas to be used for fishery purposes. The species obtained from the inland fisheries are mainly common carp, grey mullet, mullet, pike perch, trout, eel etc. On a geographical basis, the greatest fish activity has traditionally been located along the East Black Sea Coast of Turkey.

In response to recognition of strong household demand, the growing requirements of the tourism sector and strong demand for certain species on export markets, production from the Aegean Sea has increased considerably.

Since the natural structure is very suitable for aquaculture, it seems that Turkey will achieve great developments in this area. The farms are particularly located in the Central Anatolian, Aegean and Western Black sea Regions and their numbers have increased in the past years, leading to production surplus that cause rise in the exports of Turkish fishery products. The species of the products produced in these regions are trout, sea bream and sea bass. Fresh water fishing in Turkey evidently offers even greater potential for both fish and shellfish.

This substantial export oriented business has developed and Turkey became a supplier to European countries, USA, Commonwealth of Independent States (CIS) and Middle East countries in fishery products.

Agro-industry

Rapid growth occurred throughout the 1980s, led to the rapid development in agro-industry and resurgence of both domestic and foreign investment in Turkey. Reform realized in the foreign exchange system left exporters largely free of restrictions in

international transactions. Trade policies, which included tax rebates, export credits and credit subsidies, also enhanced export performance of the sector.

Turkish agro-industry brings together the producers of varying status and size. They range from small individual units and small and large cooperatives, to multi-national organizations. Also important are the small to modest-sized specialists and craft businesses which offer limited but high quality products, often using traditional methods and recipes.

Turkey has an age-old tradition of preserving food, which for a long period was based on salting and drying methods. Availability of almost all kinds of fruits and vegetables and the favorable environmental conditions which led to grow them in ample quantity and highest quality, have formed a strong base for the improvement of the Turkish fruit and vegetable preservation industries. Nowadays, the plants placed in the different food-producing area employ advanced preservation techniques and use the most sophisticated and attractive types of packaging.

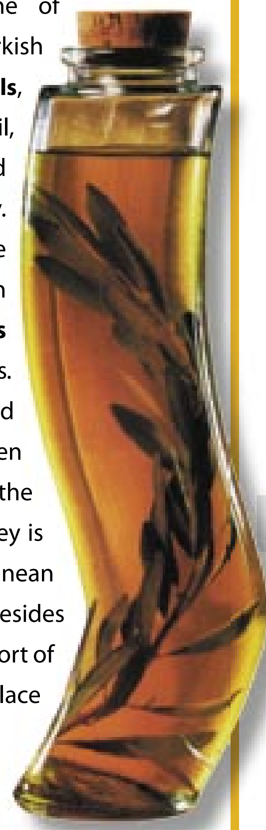
Although it is quite a new sector in Turkey, the **frozen fruits and vegetables industry** has undergone various remarkable changes and is one of the important export-oriented (75-80% of the amount produced is exported) food sectors. The growth registered in the sector can be totally attributed to the increasing foreign demand since the domestic consumption has yet not reached a sizeable quantity. **Dehydrated vegetable industry** is a minor branch of the Turkish agro-industry but a remarkable development is expected in the near future due to both the availability of raw materials and the new investments in the industry. Turkish **fruit juice and concentrates** industry started its production in the late 1960's and this brand-new export-oriented industry has flourished rapidly due to modern production units, new investments and strong support of abundant fresh fruit production. **Tomato processing industry** is the pioneering sector in food processing industry. Generally the

biggest share in the exports of processed vegetables and fruits belongs to **tomato paste** and today worldwide all importers know its quality. Although the dominant traditional processing line is tomato paste processing, **peeled and diced tomatoes** are the other promising products for Turkey as well.

Despite its fragmented structure, Turkey is the largest producer of **dairy products** in the region. The rich varieties of cheese have made Turkey one of the preferred suppliers of this product. Besides the traditional cheeses, which are mainly Otlu Cheese, Tulum Cheeses, Urfa Cheese, White cheese, salinized Diyarbakır Örgü Cheese and etc., other types of products that are demanded internationally, are also produced. Among these products Mozzarella, Kashkaval and White Cheese have special importance in Turkish foreign trade.

Turkey also has a highly developed **meat and poultry products** sector because of being one of the major countries in the world as far as the number of animals is concerned. Domestic consumption of poultry meat in Turkey has grown most quickly, displacing the traditional meats such as lamb, mutton and goat. The poultry products also dominate the exports of this sector.

Because of her vast agricultural potential, oilseeds have always been one of the important sectors of Turkish agriculture. Several **vegetable oils**, mainly sunflower oil, corn oil, cottonseed oil, soybean oil and hazelnut oil are produced in Turkey. Having the longest coastline on the Mediterranean Sea, Turkey has been one of the major producers of **olives** among Mediterranean countries. Therefore, **olive oil** traditions and olive oil dishes have always been the pride of Turkish culture since the time of the Ottomans. Today, Turkey is supplying the olive oil of Mediterranean cuisine all over the world. Besides vegetable oils, production and export of **margarine** has also an important place in the sector.



The **sugar and chocolate confectionery** sector in Turkey is historically based on the production of the traditional Turkish confectionery products such as Turkish delight and halva. The sector has become one of the most important sub-sectors of the food industry using modern technology together with the traditional production methods. The Turkish sugar and chocolate confectionery sector has the most advanced technology in the Middle East, Balkans, North Africa, Baltics and Central Asia. The products are more widely diversified and of a higher quality. Major items produced in the industry include various types of candies, chewing gum, Turkish delight, halva, chocolate-coated products and various types of chocolates.

Wheat flour, bread, macaroni, biscuits, pastries, semolina and cracked wheat characterize the **pastry and milling industry** sector in Turkey. Wheat flour, macaroni and biscuits are those that accelerated Turkish food industry exports especially with the increase achieved since 1990.

Nowadays consumers are becoming increasingly interested in environmentally sound products, because of continuously expanding awareness. Thus, the desire for healthy life has oriented consumers towards **healthy food and organic agricultural products**. Turkey is one of the best-suited countries in the world for organic cultivation. This is not only due to her ecological and climatic conditions but also due to the use of more traditional agricultural methods. Although organic farming and in-conversion land constitute a small portion of total agricultural land, organic agriculture, which was mainly concentrated in Aegean region in 1985, has expanded in all regions. The number of farmers dealing with organic agriculture and the variety of organic products in Turkey is also increasing year by year. Today around 150 kinds of agricultural products are organically produced in Turkey and shipped abroad pioneering with raisins, dried apricots, dried figs and hazelnuts.

With the huge increase in production of organic cotton, organic textiles have become a promising sector in organic agricultural production. Especially baby clothes, and underwear where no chemical dyes and bleaches are used during production, have gained importance in this area in recent years.

Organic livestock production is yet a minor sector in organic agriculture, but it is expected that production is yet a minor sector in organic agriculture, but it is expected that production will increase in the following years as a result of growth in domestic demand.

Trends in Agricultural Production (1000 Tons)

	2000	2001	2002	2003	2004	2005	2006	2007
CEREALS	32 109	29 426	30 687	30 658	33 996	35 287	34 643	29 256
Wheat	21 000	19 000	19 500	19 000	21 000	21 500	16 510	17 234
Barley	8 000	7 500	8 300	8 100	9 000	9 500	8 600	6 666
PULSES	1 316	1 455	1 640	1 558	1 507	1 428	1 398	1 306
Chickpeas	548	535	650	600	650	610	552	524
Lentils	353	520	565	540	560	555	622	580
INDUSTRIAL CROPS	19 963	13 744	17 777	13 776	14 668	14 668	21 073	18 074
Tobacco	200	145	153	112	157	148	98	80
Sugar beet	18 821	12 632	16 523	12 622	1 357	14 299	14 452	12 414
Cotton lint	880	901	988	919	920	945	976	868
Sunflower	800	650	850	800	900	950	1 087	854
FRESH FRUITS AND VEGETABLES	41 012	40 107	41 814	43 229	41 073	44 691	42 639	42 436
Table grapes	3 600	3 250	3 500	3 600	3 500	3 050	4 000	2 742
Apples	2 400	2 450	2 200	2 600	2 100	2 550	2 002	2 458
Citrus fruits	2 222	2 478	2 493	2 487	2 707	2 588	3 037	2 989
Potatoes	5 730	5 000	5 200	5 300	4 800	4 200	4 397	4 246
Tomatoes	8 890	8 425	9 450	9 820	9 440	9 662	9 855	9 945
TREENUTS	758	860	843	789	592	835	998	882
Hazelnuts	470	625	600	480	358	530	661	530
TEA (dry)	139	143	150	155	210	215	204	222
NO OF HENS (1000)	258 168	217 575	245 776	277 532	296 876	317 497	344 820	269 368
HENS' EGGS (million)	13 508	10 575	11 555	2 666	11 055	12 052	11 734	12 725
Sheep	28 492	26 972	25 174	25 431	25 201	25 304	25 617	25 462
Cattle	10 761	10 548	9 803	9 788	10 069	10 526	10 871	11 037
MILK	9 794	9 496	8 409	10 611	9 750	9 885	10 904	12 330
MEAT	491	435	421	367	319	325	341	576

Source: State Institute of Statistics

Agricultural Policy

Turkey's closeness to the Europe, the Middle East and the North Africa; gives her the opportunity of accessing easily to large markets through the Black Sea on the north, the Aegean Sea on the west and the Mediterranean Sea on the south. Likewise, Turkey's internal market also experiences rapid growth in demand for more food of higher quality, due to the high rates of population growth and rising income. Thus, agriculture in Turkey holds the promise of making a major contribution to Turkey's economic development.

The principal objectives of the Turkish agricultural policy are set out in successive five-year development plans. These are to establish an organized, highly competitive and sustainable agricultural sector; to provide adequate and stable incomes for those working in agriculture; to meet the nutritional needs of growing population considering food safety as the most important issue; to stabilize agricultural prices to enhance productivity by ensuring the utilization of high quality seed and seedlings, training farmers, strengthening producers organizations, supporting R&D activities, increasing competitiveness of agricultural holdings and improving the marketing framework; to develop rural areas; to prevent large stocks and keep and stabilize producer income level; to promote the application of modern agricultural techniques and to develop the export potential of agriculture. As a result of the latter, agricultural exports has expanded rapidly over the last decade.

The agricultural policies are determined within the framework of the World Trade Organization Agreements and other international obligations and commitments. Since its initial reform efforts, Turkey has made significant strides in opening up its borders to imports and reducing controls on exports. Turkey has made moves to harmonies its trade policies with those of the European Union and has entered into new regional trading arrangements.

As of January 1st 1996, the date of the entry into force of the Customs Union with the EU, Turkey has eliminated all custom duties and charges having equivalent effect on imports of industrial products from the EU. The Customs Union initially covers only processed agricultural products containing cereals, sugar and milk along with industrial products. Free circulation of traditional agricultural products between Turkey and the EU will become possible to the extent that Turkey approximate its agricultural policy to the Common Agricultural Policy of the EU.

Despite agriculture's diminished role in Turkish economy, it still accounts for a large share of total output and employment. The table below shows the export trends in selected agricultural and food industry products.

Exports Trend in Selected Food and Agricultural Products (USD million)

Product Name	2001	2002	2003	2004	2005	2006	2007
Pulses	193	116	196	167	159	248	189
Citrus Fruits	212	250	259	193	384	374	514
Tomatoes, fresh	49	70	89	110	144	174	297
Raisins	163	156	183	231	240	289	316
Hazelnuts and Hazelnut Products	703	573	628	1 188	1 920	1 456	1 364
Apricots, dried	88	118	150	198	180	105	236
Wheat	136	10	0.4	0.4	52.2	101	9.1
Other cereals	26	70	56	17	39	100	67
Wheat flour	31	42	111	197	421	273	424
Tobacco	354	282	344	417	503	539	486
Pasta	12	17	26	50	228	60	108
Biscuits	76	85	137	133	142	154	203
Olive oil	135	46	164	135	305	179	135
Frozen fruits & vegetables	46	51	47	85	74	94	111
Sugar conf., chocolate and products	169	179	252	318	368	435	566
Dehydrated vegetables	20	24	30	32	44	54	66
Fruit juices & concentrates	46	36	73	64	92	104	160
Tomato paste	75	77	100	134	126	93	91
Fishery products	74	123	154	213	237	260	264
Organic products	28	27	37	33	26	28	29
Total of the first 24 (HS) Chapters	**4 071**	**3 752**	**4 845**	**6 009**	**7 828**	**8 048**	**9 142**

Source: Undersecretariat for Foreign Trade