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Turkey

Sugar Annual

Turkey Annual Sugar Report

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Report Highlights:
Lower polarity rates in the last two harvest seasons in Turkey and unchanged sugar quotas led to a substantial increase in sugar imports in 2015. Eventually, the total sugar quota increased six percent in MY 2016/17 where total beet sugar quota is announced as 2.5 MMT and the starch based sugar quota is 265,000 MT. As a result of the increase in quotas, Turkey's sugar beet plantation increased eight percent in MY 2016/17. Even though the production quotas for MY 2017/18 have not yet been announced, post expects these figures to have a slight increase in the upcoming marketing year.

Executive Summary:

There are 33 factories belonging to seven companies operating in the Turkish beet sugar sector with a total annual production capacity of 3.1 MMT. The actual production is usually ten to twenty percent lower than the capacity, in order to balance supply and demand.

Sugar production is regulated by a public institute called the Turkish Sugar Board, which announces and allocates annual production quotas to the existing producers, as per the Sugar Law of 2001. The Turkish Sugar Board has drafted a revision to this Law to expand regulations to cover stevia and high density sugar varieties among other structural changes, but it has not yet been approved by the Parliament.

In the past two market years (MY 2014/15 and MY 2015/16), climate conditions were unfavorable for sugar beet production, which led to lower polarity rates (amount of sugar obtained from sugar beets). As a result, the Sugar Board increased the sugar production quotas for MY 2016/17 to 2,769,250 MT (the total beet sugar quota was announced as 2,504,250 MT and the starch based sugar quota was 265,000 MT). Even though planting is just starting, post expects a slight increase in plantation areas and the eventual sugar production in MY2017/18.

As farmers become more familiar with modern agricultural techniques and are using better quality seeds, the yields are increasing and so are farmers' incomes, especially in the Central Anatolia region.

Starch based sugar (SBS) production has also increased six percent in MY 2016/17 in light of the general increase in sugar production quotas.

Commodities:

Sugar Beets

Sugar, Centrifugal

Production:

Turkey produces sugar from sugar beets in most regions, but the majority of production comes from the Central Anatolia region, near the cities of Ankara, Konya, Eskisehir, Afyon, Tokat and Yozgat. Sugar beet fields are rotated with cereals, pulses, fodder crops and sunflowers. Sugar beets are planted in the spring (April), and the harvest begins in October. However, these periods vary slightly according to the climate conditions of the region.

Production of sugar beets, and consequently sugar, is limited to the quotas specified by the Turkish Sugar Board. These quotas determine the quantity for beet sugar and starch based sugar, and are announced as three categories. The 'A' quota specifies how much sugar companies can sell in Turkey within a marketing year. The 'B' quota is an extra amount that is produced and kept in reserve as a buffer, and its volume is calculated as a percentage (generally 4 percent) of the 'A' quota. The 'B' quota is allocated only for beet sugar, and not to starch based sugar as per the sugar law. The 'C' quota applies to excess sugar produced above the allocated 'A' quota amount, which can only be exported and is sold by factories at world prices.

The table below provides the production quotas for the last three marketing years. The quotas for MY 2017/18 have not yet been announced as of the date of this report.

Table 1: Sugar Production Quotas in Turkey (1,000 MT)

	2014/2015 MY			**2015/2016 MY**			**2016/2017 MY**		
	A Quota	B Quota	TOTAL	A Quota	B Quota	TOTAL	A Quota	B Quota	TOTAL
Beet Sugar	2,250	67.5	2,317.5	2,250	67.5	2,317.5	2,385	119.25	2,504.25
Starch Based Sugar	250	-	250	250	-	250	265	-	265
Total Quota	**2,500**	**67.5**	**2,567.5**	**2,500**	**67.5**	**2,567.5**	**2,650**	**119.25**	**2,769.25**

There are seven beet sugar producers in Turkey; six of which are private and one is public (Turkseker), which have been in the process of being privatized for eight years now. These seven producers have 33 factories with a total production capacity of 3.1 MMT per year. There are also five starch based sugar (SBS) producers, all of which are privately owned and have a total processing capacity of 1 MMT of corn. The production quotas for MY2016/17 are allocated to the sugar beet producers as follows:

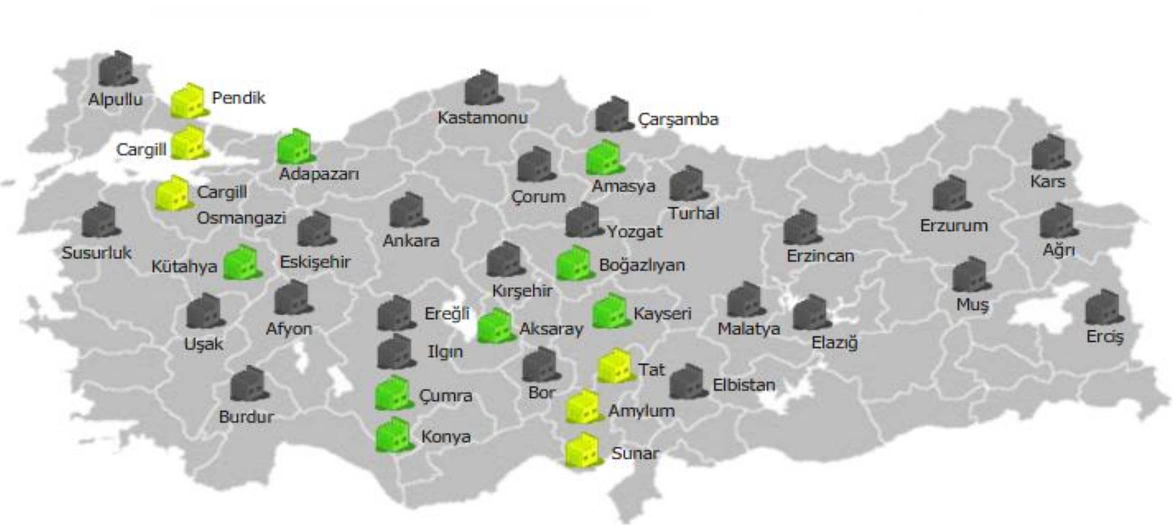
Table 2: Beet Sugar Quotas for Producers

BEET SUGAR QUOTAS FOR MY 2016/2017 (Metric Tons)		
Beet Sugar Producers	**A Quota**	**B Quota**
Türkiye Şeker Fabrikaları A.Ş. (TURKSEKER)	1,361,700	68,090
Adapazarı Şeker Fabrikası A.Ş.	50,000	2,500
Amasya Şeker Fabrikası A.Ş.	63,100	3,150
Kayseri Şeker Fabrikası A.Ş.	328,800	16,440
Keskinkılıç Gıda San. ve Tic. A.Ş.	107,000	5,350
Konya Şeker San. ve Tic. A.Ş.	435,500	21,780
Kütahya Şeker Fabrikası A.Ş.	38,900	1,940
Total	**2,385,000**	**119,250**

The announced quota is allocated to each of these producer companies at the beginning of the calendar year. These producers then contract farmers in the vicinity of their factories to plant sugar beets based on their allocated quotas. Any excess sugar produced at the end of a marketing year beyond their 'A' quota is sold by factories at world prices, which are significantly lower, which is called the 'C' quota sugar, and its use is restricted to either direct exports or sales to producers of confectionary products for export. There is no quota announced for 'C' sugar since it can only be used in products that will be exported, and cannot be marketed domestically. While private companies prefer to export their 'C' sugar directly, Turkseker has the largest share in providing 'C' sugar to exporting confectionary producers. The government has obliged Turkseker to do so in order to support exports. In the event that ‘C’ sugar does not meet the demands of exporters and exporting producers in a market year, Turkseker shifts some of its ‘A’ quota sugar to ‘C’ sugar and sells it at world prices, and bears the economic loss in order to meet that demand.

The map below shows the locations of all production facilities throughout Turkey. There are 33 sugar plants and 6 SBS plants in total. The plants marked in gray (25) are the public beet sugar production factories that belong to Turkseker. The dark green plants (8) are private and cooperative-owned beet sugar production factories and the yellow plants (6) are starch based sugar production plants, all of which are private.

Figure 1: Map of Sugar and SBS Production Facilities in Turkey



From the green plants above, the Adapazari factory belongs to the Turkish conglomerate Yildiz Holding, the Aksaray factory belongs to Keskinkilic Company, and the Kutahya Factory belongs to Kiler and Torun groups. The rest (5) of the factories belong to PANKOBIRLIK – the Turkish Sugar Beet Producers Cooperative.

Some of the Turkseker factories are not operating every year. These are the Kars, Agri, Carsamba, Alpullu and Susurluk factories. Beets produced in these regions are delivered to other more efficient factories in years when there is low production. Some of the factories of Turkseker were opened in the earlier years of the republic to promote social welfare in certain regions of the country and because sugar production is labor intensive, facilities have been established in the East and in regions where the government hopes to reduce migration to urban centers.

Sugar Beet Production

The production system is as follows:

1. The Sugar Board announces the quotas for the Market Year and allocates them to the existing producers.
2. Producers contract farmers in the vicinity of their factories per their allocated production quotas.

3. Farmers plant their beets around April and harvest them in September/October. At the beginning of the harvest period, the Sugar Board announces a base procurement price (for a polarity rate of 16) and the factories pay the farmers according to the polarity rate of their beets relative to the base price. Higher temperature differences between day and night favor the polarity rate (the amount of sugar obtained from a beet). For MY 2016/17 the announced beet prices were 190 TL per metric ton and it has increased to 210 TL/MT for MY 2017/18. (1 US$ = 3.7 TL as of April 2017)
4. At the end of the production period, the factories market their allocated 'A' quota sugar within Turkey at the price announced by the Sugar Board, and any excess amount is either exported or sold at international market prices to exporting companies to be used in their confectionary products, which is called the 'C' quota.

The increase in quotas resulted in the production of 19,592,000 MT of sugar beets from a harvested area of 321,953 hectares in MY 2016/17. The plantation area is expected to increase a bit further in MY 2017/18 due to the increasing interest in farmers as a result of profitable beet purchasing prices. The resulting sugar beet production is expected to reach 20,000,000 MT in the upcoming market year.

Centrifugal Sugar Prices

The Sugar Board announces a base price for sugar beets and a factory sales price (referred to as *ex-factory price* in this report) for sugar in consultation with Turkseker. The factory sales price of sugar is announced depending on the average refining costs of Turkseker. This eventually benefits the other (private and cooperative) producers as their costs are much lower and their profit margins become higher. In MY 2016/17 the factory sales price of sugar is 144.72 TL for a 50 kg bag (2.89 TL/kg) and 179.28 TL for a 50 kg bag of cube sugar (3.58 TL/kg). The retail price of sugar currently varies between 3.75 and 4.75 TL/kg in supermarkets. (1 US$ = 3.7 TL as of April 2017)

Starch Based Sugar (SBS)

The Raw Material and Sugar Prices Decree of 2009 requires the use of domestically grown corn for the production of SBS that is marketed domestically. There are currently five private SBS companies that are allocated a quota and their total production capacity is approximately 1 MMT/year. Apart from these, there are four other SBS companies that are not allocated quotas and are allowed to produce SBS only for export purposes. These have a total SBS production capacity of 269,000 MT/year.

As per the Sugar Law, only 'A' quota is allocated for starch based sugar companies. This SBS quota is announced as approximately 10 percent of the total sugar quota. However, the initial quotas announced for SBS can be increased up to 50 percent by a Cabinet decree, and the Cabinet exercises this right almost every year. Post expects the same amount of quota for SBS in MY 2017/18.

The table below shows the allocation of the SBS quota for MY 2016/17 to the five producers.

Table 3: Starch Based Sugar Companies and Quotas

Starch Based Sugar Producing Companies	A Quota
CARGILL TARIM VE GIDA SANAYİ VE TİCARET A.Ş.	116,181
AMYLUM NİŞASTA SANAYİ VE TİCARET A.Ş.	82,385

PNS PENDİK NİŞASTA SANAYİ A.Ş.	37,649
TAT NİŞASTA İNŞAAT SANAYİ VE TİCARET A.Ş.	17,077
SUNAR MISIR ENT. TES. SANAYİ VE TİCARET A.Ş.	11,708
Total	**265,000**

The draft Sugar Law proposes to change this yearly optional increase to cap the maximum quota for SBS at a fixed 15 percent (of the total sugar quota) which is objected to by the beet sugar producers.

Ethanol and Molasses

Sugar beets are the main source of bio-ethanol production in Turkey, followed by corn and wheat. No additional sugar beets are planted to produce this bio-ethanol as it is produced from molasses, which is a side product of sugar production from sugar beets. Once the sugar is extracted from beets, the alcohol remaining in the molasses is converted into ethanol.
Afterwards, the molasses is used as feed and as raw material for the pharmaceutical industry, cosmetics, construction, alcoholic beverages and yeast. Sugar beet pulp is used directly or as a mixture with molasses in the feed sector. Production of these side products are increasing in parallel to the amount of beets produced by the factories.

Annual molasses production does not vary vastly from year to year and is around 670,000 MT. Currently there is a three percent mixture rate of bio-ethanol into fuel as specified by the Energy Market Regulatory Authority (EPDK). This ratio is expected to increase to five percent in 2017, which will necessitate extra bio-ethanol production. The law requires this bio-ethanol to be obtained from only domestically grown agricultural products.

In Turkey, 22 MMT of fuel is consumed annually, 1.9 MMT of which is gasoline. Currently there are three plants producing fuel-purpose bio-ethanol with an established total production capacity of 150 million liters. Some 84 million liters of this come from the Pankobirlik's Cumra Plant in Konya where ethanol is produced from sugar beet molasses. The rest comes from two plants in the cities of Bursa and Adana where it is produced from locally grown corn.

Consumption:
Turkey is the world's fifth largest beet sugar producer, ranking behind France, Germany, the United States, and Russia. With a population of approximately 80 million, Turkey is also a significant consumer. Annual consumption varies between 2.3 and 2.5 MMT.

Increasing urbanization and the subsequent changes to lifestyles and eating habits play an important role in increasing sugar consumption. This is reflected in the increase of SBS imports. Starch based sugar that is derived from corn is not consumed directly, but is rather used by the industry as an ingredient in the production of candies, baked products, traditional deserts, ice cream, halva, jams, and alcoholic and non-alcoholic beverages.

Trade:
Turkey's import and export figures for sugar in MY 2015/16 and for the first four months of MY 2016/17 are given in the below table.

Table 4: Turkey's Trade for Beet Sugar and Chemically Pure Sucrose, Refined, In Solid Form, Not Containing Added Flavoring or Coloring Matter (HS 170199)

Export Trade Matrix		
	MY 2015/16 (Oct-Sep)	**MY 2016/17*** (Oct-Jan)
United States	36	10
Iraq	16	23
Azerbaijan	7,579	1,000
Syria	76	0
Ethiopia	1,211	0
Turkish Rep. of North Cyprus	375	34
Turkmenistan	18	4
Somalia	8,800	0
Others not listed	89	9
Grand Total	**18,200**	**1,080***
Import Trade Matrix		
	MY 2015/16 (Oct-Sep)	**MY 2016/17*** (Oct-Jan)
United States	34	3
Egypt	17,931	1,677
France	19,817	13,420
Germany	22,994	1,791
Algeria	65,071	2,724
Brazil	78,317	23,694
Morocco	31,956	5,364
India	16,228	0
Spain	7,491	5,260
Others	18,254	39,189
Grand Total	**278,093**	**93,122***

Source: Global Trade Atlas, Metric Tons in Calendar Years,
**Note: MY 2016/17 is not a full year*

Stocks:
Producers who are allocated quotas at the beginning of the marketing year sell their 'A' quota production in the domestic market. If a company cannot market its entire 'A' quota sugar, the remaining amount is transferred to the 'A' quota of the following marketing year, which cuts into the company's quota allocation for the following year. Therefore, companies prefer to market this excess amount as 'C' sugar and either export it directly or sell it to confectionary companies at world prices to be used in their products for export. The companies are required to preserve their security reserves ('B' quota).

Any remaining stocks at the end of a marketing year mostly belong to Turkseker and are kept in factory silos. Lower production rates in the past two marketing years caused a depletion of Turkseker's stocks.

It is mostly Turkseker who provides ‘C’ sugar to exporting confectionary companies and the reduced production also resulted in the absence of ‘C’ sugar for exporters. The government therefore opened the door for sugar imports in March 2015 under the inward processing regime (i.e. the imported sugar can be imported tariff free only to be used in products that will be exported and not marketed domestically) which is exempt from the 135 percent import tax levied on sugar imports to be marketed domestically.

Starch Based sugar companies usually produce and sell their entire allocated quota and are left with no more than 10-15 thousand tons of stocks at the end of the marketing year.

Policy:

The sugar sector is regulated by a Sugar Board that was formed in 2001. It is composed of members from government offices and sugar producers. The government has been in the process of making a substantial change in its sugar policy for the last few years. The government sent Parliament a new Sugar Law on April 8, 2013 that will replace the current law (Nr. 4634). The proposed law, which is still waiting at the Parliament, will dissolve the Turkish Sugar Board and establish a Sugar Sector Regulation and Auditing Board. The new Board will be entitled to determine quotas, allocate these quotas, and regulate issues such as new factory establishments, and increases in capacity.

The new law will change the definition of sugar to: “all sorts of sugar varieties including raw sugar, brown sugar, side white sugar, white sugar, refined sugar, sugar solution, invert sugar solution, invert sugar syrup, glucose syrup, glucose-fructose syrup, dried glucose syrup, dextrose, dextrose monohydrate, water-free dextrose, fructose syrup, fructose-glucose syrup, and crystal fructose, which include sucrose, glucose, fructose or their polymers such as starch or inulin as raw materials.”

Another important change of the proposed legislation is the increase in SBS quota from the current 10 percent to 15 percent of the ‘A’ quota domestic beet sugar. Currently, the Cabinet of Ministers has the right to increase or decrease this amount by 50 percent, but the new law sets the quota at a fixed 15 percent, the scope of which is expanded to include sucrose based sugars as well.

The draft law excludes sugar that will be used for non-food purposes from the announced quota regime. Therefore, sugar that will be used as a raw material in industries such as chemistry, medicine, fermentation, construction, paper, and biofuels will not be subject to a quota limit. However, production and sale of these sugars will require a license from the new Sugar Board. This is a specialized kind of sugar and its production and consumption is not in large amounts.

Turkiye Seker Fabrikalari A.S. (TURKSEKER) is a government entity and is the biggest sugar producer with 25 sugar factories, 4 alcohol and 5 machine plants, 1 electromagnetic devices plant, a seed treatment plant and a Sugar Institute for research. TURKSEKER was subjected to privatization by the Privatization Board in 2001. In 2004 and 2005, Kutahya, Adapazari and Aksaray refineries were privatized by the Turkish government. Afterwards, privatization efforts for the rest of Turkseker factories have continued on and off up until today. The latest extension to the deadline for the completion of privatization was December 31, 2016, however the bureaucracy has been practically at halt until the referendum on constitution due on April 16, 2017. Additionally, following the coup attempt on July 15, 2016, the Turkish government declared a State of Emergency, removed thousands of civil servants from their government positions, and seized businesses which had a suspected connection with the organization the Turkish government believes to be behind the coup attempt. The State of Emergency and subsequent dismissals interrupted some government operations and processes.

Turkish sugar beet producers used to be against privatization due to social and economic reasons. One of the main arguments of the anti-privatization group is that once these plants are privatized, only a few profitable refineries will survive and the rest will be shut down, causing a spike in unemployment. This fear was validated by the massive layoffs after transfer of the plants to the Privatization Administration. Instead of privatization, the sector hoped for a change in the beet contracting methods and modernization of public plants. Now that this option seems to be off the table, the sugar beet producers cooperative Pankobirlik has proposed several alternatives to the government to prevent infractions to the sugar industry.

Marketing:

The market year begins after the harvest and lasts until the next autumn (i.e. from September 1 to August 31 of the following year). Despite its 4-5 month production period that starts generally around September and ends in January, sugar is marketed for 12 months. The state-owned Turkseker, private producers, wholesalers and retailers handle the marketing of sugar.

The sweets and confectionary sectors in Turkey are developing steadily. Production of chocolate and cacao products increased substantially compared to the traditional Turkish products such as *Turkish delight* and *helva*. Exporters of these products can use 'C' sugar at world prices, but are charged a fine if their products are seen to be sold in the domestic market. The sector is also increasingly using SBS instead of beet-sugar, due to cheaper prices.

Turkey levies a 135 percent import tax on sugar and sugar imports for use in the domestic market are limited to specialty sugar that is not domestically produced (aimed for medical, laboratory use, etc.). The increased number of import figures in 2015 and 2016 are brought in under the scope of the inward processing regime. This entails the exemption of duties on imported sugar as long as it is used in exported goods, and not actually imported to be used domestically. Turkey has reduced sugar smuggling in recent years with the help of increased controls and preventive measures taken by the Sugar Board.

Production, Supply and Demand Data Statistics:

Sugar Beets	**2015/2016**		**2016/2017**		**2017/2018**	
Market Begin Year	**Sep 2015**		**Sep 2016**		**Sep 2017**	
Turkey	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Area Planted	290	290	300	322	0	330
Area Harvested	288	288	295	320	0	325
Production	16632	16632	17500	19500	0	20000
Total Supply	16632	16632	17500	19500	0	20000
Utilization for Sugar	16632	16632	17500	19500	0	20000
Utilization for	0	0	0	0	0	0

Alcohol						
Total Distribution	16632	16632	17500	19500	0	20000
(1000 HA) ,(1000 MT)						

Sugar, Centrifugal	**2015/2016**		**2016/2017**		**2017/2018**	
Market Begin Year	**Oct 2015**		**Oct 2016**		**Oct 2017**	
Turkey	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Beginning Stocks	0	0	35	10		80
Beet Sugar Production	2,000	2,000	2500	2500		2550
Cane Sugar Production	0	0	0	0		0
Total Sugar Production	2,000	2,000	2500	2500		2550
Raw Imports	0	0	0	0		0
Refined Imp.(Raw Val)	250	278	25	120		50
Total Imports	250	278	25	120		50
Total Supply	2,250	2,278	2560	2630		2680
Raw Exports	0	0	0	0		0
Refined Exp.(Raw Val)	15	18	50	50		90
Total Exports	15	18	50	50		90
Human Dom. Consumption	2,200	2,250	2250	2500		2500
Other Disappearance	0	0	0	0		0
Total Use	2,200	2,250	2250	2500		2500
Ending Stocks	35	10	260	80		90
Total Distribution	2,250	2,278	2560	2630		2680
(1000 MT)						