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Global Agricultural Information Network

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Turkey

Sugar Annual

Turkey Sugar Annual 2014

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Report Highlights:

Turkey will plant 8 percent more sugar beet area to meet the new 2014/2015 beet sugar quota of 2,317,500 metric tons (MT), which is an increase from 2,282,000 MT in 2013/2014. Post forecasts sugar beet production at 16.4 million metric tons (MMT) in 2014/2015, down slightly from 16.5 MMT last year. Dry conditions will offset the greater planted area, reducing yields. Post forecasts the same production for the 2014/2015 at 2.3 MMT. The starch based sugar quota also increased from 244,000 MMT in the 2013/2014 to 250,000 MMT for 2014/2015.

Executive Summary:

The Turkish beet sugar sector is about 5.2 billion Turkish Lira (TL), or US\$ 2.47 billion (2.1TL/\$1). There are 33 factories belonging to 7 companies operating in the beet sugar sector with a total annual capacity of 3.1 million MMT.

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 the Law to expand regulations to stevia or high density sugar varieties, but has not yet been approved by Parliament.

In 2013, climate conditions were favorable for sugar beets and led to a higher polarity rate (amount of sugar obtained from sugar beets) compared to previous year. The average polarity rate throughout Turkey was 17.5 percent in marketing year (MY) 2013/2014, compared to 17.4 percent in MY 2012/2013. The national average sugar beet yield has also increased to 56.7 tons per hectare, but the rates in the Konya region and Central Anatolia (the center of Turkish sugar beet production) yield reached 80–85 tons per hectare.

As farmers become more familiar with modern agriculture techniques and are using better quality seeds, the yields are increasing and so are farmers' incomes. Sugar beet farmers earned an average of 2000 TL per hectare. Sugar is sold for 123 TL in 50 kilogram (Kg) bags, and cube sugar is sold in 20 Kg packs for 63 TL. (US\$1= 2.1 TL as of April 3, 2014)

In MY 2014/2015, post expects the area planted to increase to 315,000 hectares. Sugar beet production is expected to decrease slightly to 16.43 MMT due to dry weather conditions. As a result, total sugar production is expected to remain the same at 2.3 MMT. Starch based sugar (SBS) production is expected to increase as a result of the increased quotas. However, the price of corn is expected to increase due to drought, so SBS prices may climb higher than usual.

Commodities:

Sugar Beets

Sugar, Centrifugal

Production:

Turkey produces sugar from sugar beets in 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 are harvested in October, varying according to the climate conditions of the region.

Production of sugar beets, and consequently sugar, is limited to sugar beet and starch based sugar quotas specified by the Turkish Sugar Board. These quotas determine the quantity and the price of sugar beets that factories can procure, and are in three categories. The 'A' quota specifies how much sugar (from both corn and sugar beets) 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 it is not allocated to starch based sugar as per the sugar law. The ‘C’ quota applies to excess sugar beet produced in excess of the A quota and is purchased from the farmers by factories at world prices, and it is allocated for sugar or confectionary exports.

The table below provides the Turkish Sugar Board production quotas for the current and past two marketing years.

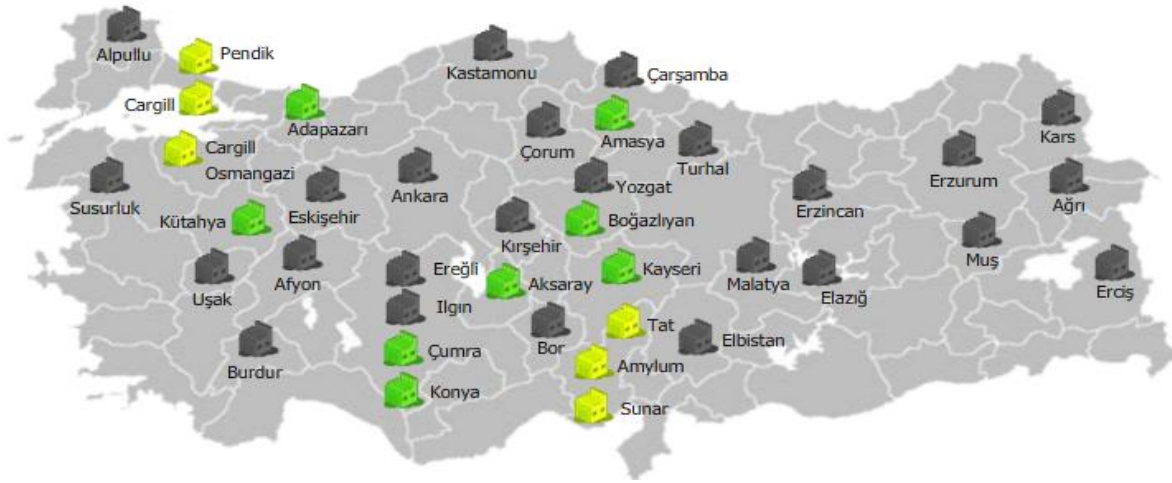
	2012/2013 MY			2013/2014 MY			2014/2015 MY		
	A Quota	B Quota	TOTAL	A Quota	B Quota	TOTAL	A Quota	B Quota	TOTAL
Beet Sugar	2,200	88	2,288	2,216	66	2,282	2,250	67.5	2,317.5
Starch Based Sugar	244	-	244	244	-	244	250	-	250
Total Quota	2,444	88	2,532	2,460	66	2,526	2,500	67.5	2,567.5

Figures are in 1,000 metric tons.

There are 7 beet sugar producers in Turkey; 6 of which are private and one is public (Turkseker), which is in being privatized. These 7 producers have 33 factories with a total production capacity of 3.1 MMT per year. There are also 5 SBS producers, all of which are privately owned and have a total processing capacity of 1 MMT of corn.

The announced quota is allocated to each of the production facilities at the beginning of each year. These factories then contract farmers to produce sugar beets based on their allocated quotas. Any excess sugar produced at the end of a marketing year is purchased from the farmers by factories at significantly lower world prices, and it is restricted to exports or the production of confectionary products for export. This is called the ‘C’ sugar. 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. Turkseker has the largest share in providing ‘C’ sugar. In the event that ‘C’ sugar does not meet the demands of exporters and exporting producers, 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 green plants (8) are private beet sugar production factories and the yellow plants (6) are starch based sugar production plants that are all private.



Sugar Beet Production and Prices

In response to the increase in production quotas in MY 2013/2014, plantation area increased to 291,000 hectares and since the quotas announced for MY 2014/2015 is even higher, post expects the plantation area to increase to 315,000 hectares. A total of 16,505,998 MT sugar beets were harvested and 2,300,000 MT of sugar was produced in MY 2013/14.

The production system is as follows:

1. The Sugar Board announces the quotas for the Market Year and allocates them to the existing factories.
2. Factories contract farmers in their vicinity per their allocated production quota and set a procurement price.
3. Farmers plant their beets around April and harvest them in September/October.
4. The predefined amount of beets agreed upon by the farmer and the factory is purchased by the factory under the A-quota at domestic market prices, and any excess amount is purchased as C-quota at the international price (which is 80 TL/MT for MY 2013/2014).

The GOT utilizes the production of sugar for national social policy. As sugar production is labor intensive, facilities have been established in the east and in regions where the GOT hopes to reduce the migration to urban centers.

Annual sugar beet production and yields are provided in the table below.

TURKEY SUGAR BEET PLANTATION, PRODUCTION & YIELDS AND BEET PRICES				
MY Years	Planted Area (hectares)	Beets Produced [Paid For] (Metric Tons)	Average Yield (MT/hectar)	Beet Prices with 16% Sugar Content [Polarity] (TL/MT)
2010/11	3,3	17,946,239	54.6	118
2011/12	2,9	16,126,489	54.9	126
2012/13	2,8	14,919,941	53.3	137
2013/14	2,9	16,505,998	56.7	147
2014/15	3,1	16,430,000	53	150

Yields have been increasing each year due to the use of modern agricultural techniques, especially in irrigation. The use of modern seeds also plays an important role in this increase. However, Post expects the dry weather conditions this year to reduce yields in MY 2014/15. The average yield is expected to reach 53 per hectare (10,000 square meters) and sugar beet production is expected to be 16,430,000 MT.

Centrifugal Sugar Prices

The government supported the sugar sector with high procurement prices in the past (before the enactment of the Sugar Law), while the price is now determined every year by the consensus of sugar factories and producers (or their representatives) before planting. Although the announced official prices may be higher, companies often offer discounts throughout the market year to eliminate stocks. Currently, granulated sugar in 50 kg bags is sold for 123 TL (\$57.21/kg) compared to 115 TL (60.52/kg*) in 2013, and cube sugar is sold in 20 kg packs for 63 TL (\$23.30/kg), compared to 58 TL (\$30.52) last year.

* Average 2013 Turkish Lira/U.S. Dollar exchange rate = 1.9TL/\$1

Starch Based Sugar (SBS)

The Raw Material and Sugar Prices Decree (2009) requires the use of domestically grown corn for the production of SBS that is marketed domestically. There are currently 5 SBS companies that are allocated a quota and their total production capacity is approximately 1 MMT/year. These companies are all private and have 6 production plants. Apart from these, there are 4 other SBS companies that are not allocated quotas and are allowed to produce sugar based starch only for export purposes. These have a total SBS production capacity of 237,000 MT/year.

As per the Sugar Law, only 'A' quota is allocated for Starch Based sugar companies. However, the initial quotas specified for SBS can be increased up to 50 percent by a Cabinet decree, and the Cabinet exercises this right every year. The table below shows the production and sales of Starch Based Sugar in the last three marketing years. Since SBS is produced from corn, the marketing year ends in September. Therefore, the figures for the 2013/14 year are not available as the marketing year is ongoing.

Starch Based Sugar Production and Sales (thousand tons)	2010/11	2011/12	2012/13*
Production	516	483	547
Domestic Sales (A Quota)	367	330	337
Export Sales (C Sugar)	150	151	205

*In MY2012/13 data, production and export sales figures include non-quota companies as well, whereas the data before does not include those companies.

In 2013, 5.9 million tons of corn was produced domestically and 960,000 MT of this corn was used by SBS producers.

Domestic ex-factory sales prices of starch based sugar (weighted average) are given in the below table for the past five years.

Marketing Years	SBS Prices (\$TL/kg)	% Change	SBS (\$/kg)	% Change
2008/09	1.15	11.65	\$0.88	
2009/10	1.17	1.74	\$0.75	
2010/11	1.26	7.69	\$0.84	12.00
2011/12	1.37	8.73	\$0.81	-3.6
2012/13*	1.47	7.30	\$0.81	-

*In MY2012/13 data, production and export sales figures include non-quota companies as well, whereas the data before does not include those companies.

[Average annual exchange rates/\$1: 2013 = 1.9; 2012 = 1.8; 2011 = 1.68; 2010 = 1.5; 2009 = 1.55; 2008 = 1.3.]

In 2013 Turkey imported 2.6 thousand metric tons of high density sweeteners which is equal to 289,527 MT of white sugar. On the other hand, Turkey imported 13,200MT of SBS, and exported 105,900 MT, compared to 9 MT of beet sugar imports and 63.7 metric tons of beet sugar exports in 2013.

Molasses

Sugar beets are used not only as a raw material for the sugar industry, but are also an important feed ingredient for the livestock industry. Sugar factories produce molasses and sugar beet pulp as a side product and this pulp is used either directly or as a mixture with molasses in the feed sector. Production of these side products are increasing parallel to the amount of beets produced by the factories.

Other than feed, molasses is also used in a variety of sectors such as medicine, cosmetics, construction, alcoholic beverages and yeast. Annual molasses production does not vary vastly from year to year and is around 670 tons.

Ethanol

Sugar beets are the main source of bio-ethanol production in Turkey, followed by corn and wheat.

The Energy Market Regulatory Authority (EPDK) published a draft communiqué on September 27, 2011, obligating the mixture of 2 percent bio-ethanol into the gasoline sold in Turkey starting from January 1, 2013. Since 2006, distributors have had the option of mixing up to 2 percent bio-ethanol into fuel, and those who did benefited from a 2 percent exemption from Special Consumption Tax, but this had been voluntary. The same law calls for a further increase in this figure to 3 percent in 2014. The law requires that bio-ethanol be obtained solely from domestically grown agricultural products. The law also had put forth similar figures for biodiesel blending starting from year 2014. The relative mixture proportions for biodiesel and bio-ethanol are given in the below table.

	2013	2014	2015	2016
Bio-ethanol	2%	3%	3%	3%
Biodiesel	-	1%	2%	3%

In Turkey 22 million tons of fuel is consumed annually, 3.5 million tons of which is gasoline. There is an established bioethanol production capacity of 184,000 million liters annually, and there is 1.5 million MT of biodiesel production capacity.

As of 2014, 3 percent bio-ethanol mixture into gasoline will require 105,000 MT of bio-ethanol, and the established capacity is well above this requirement. In 2013, the 2 percent mixture rate called for an additional production of 540,000 tons of sugar beets. In 2014, the increase of the mixture rate to 3 percent will require an additional production of 800,000 tons of sugar beets.

In 2013, Turkey blended 54 million liters of bio-ethanol, displacing 330,000 cubic meters of gasoline and reducing US\$203.4 million in oil imports. Extra production also created employment for over 3,000 people, which contributes another \$387.4 million to the economy. There has also been an increase of 106,800 tons of high-protein feed which is worth over \$30 million. If such an amount of feed were to be obtained by plantation, it would have required an extra area of 10,000 hectares.

Biodiesel on the other hand is obtained from oil seeds and Turkey is already a net importer of oil seeds. Therefore, upon the Ministry of Agriculture's objection claiming that it would increase imports drastically, EPDK eventually cancelled the part that mandates biodiesel mixture in June, 2013. There is however Special Consumption Tax exemption applied by the government in order to support the mixture of biodiesel.

Consumption:

Turkey is the world's fifth largest beet sugar producer, ranking behind France, Germany, the United States, and Russia. With a population of over 75 million, Turkey is also a significant consumer. Annual consumption is around 2.3 million metric tons (MMT). Increasing urbanization rates and the subsequent changes to lifestyles and eating habits play an important role in increasing sugar consumption. This reflects in the increase of SBS imports.

Starch based sugar that is derived from corn is not directly consumed but is rather used as an ingredient in the production of candies, baked products, traditional deserts, ice cream, halva, jams, and alcoholic and non-alcoholic beverages.

Trade:

Export Trade Matrix		
	2012	2013
Exports to:	(metric tons)	
United States	34	63
Iraq	16,804	682
Azerbaijan	4,602	8,001
Syria	4,200	33,628
Niger	278	2,750
Senegal	114	2,000
Turkish Rep.of North Cyprus	2,092	2,581
Lebanon	118	1,153
Somalia	4,500	10,000
Others not listed	578	2,847
Grand Total	33,320	63,705
Import Trade Matrix		
	2012	2013
Imports from:		
United States	0	0
United Kingdom	2,295	4,017
France	2,994	4,025
Germany	219	222
Brazil	0	456
Israel	0	272
Netherlands	0	48
Guatemala	0	3
Grand Total	5,511	9,044

Source: Global Trade Atlas

Commodity: 170199, Beet Sugar and Chemically Pure Sucrose, Refined, In Solid Form, Not Containing Added Flavoring or Coloring Matter – Annual Quantity

Stocks:

Any remaining stocks at the end of a marketing year mostly belong to Turkiye Seker Fabrikalari A.S and are kept at the factory silos, since the private companies have more flexible marketing policies (discounts and credit sales) and they usually try to sell everything they produce following the end of a production period.

Producers who are allocated quotas at the beginning of the marketing year sell their production in the domestic market. If a company cannot market its entire ‘A’ quota sugar allocated to it in a marketing

year, the remaining amount is transferred to the 'A'-quota of the following marketing year and hence the company's allocated quota for the following year is reduced. Therefore companies prefer to transfer this excess amount to 'C' sugar and sell it to exporters at world prices. In any case, the companies have to preserve their security reserves (B quota).

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:

Sugar beet production in Turkey is a politically charged issue. When it comes to sugar policy social considerations dominate the decision making process. For example, state-owned sugar refineries were purposely opened in places with high unemployment rates, and government-supported procurement prices are used to protect the industry

The Sugar Law of 2001 formed a Sugar Board which operates under the Ministry of Industry and Trade. The Sugar Board has seven members: four government officials and one representative each from TSC, PANKOBIRLIK, and the starch-based sweeteners sector. The representatives from PANKOBIRLIK and SBS sector which are sent to the board are from the companies with the highest production. The main responsibility of the Board is to distribute production quotas to all the sugar-and sweetener-producing companies based on their performance over the previous three years. For newly established refineries, the quota is determined by their reported capacity.

The government of Turkey is in the process of making a substantial change in its sugar policy. In this respect a new Sugar Law containing 27 clauses that will replace the current law (Nr. 4634) was sent to Parliament for approval on April 8, 2013. The proposed law would 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 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 (which creates a range of between 5 percent and 15 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 bio-fuels will not be subject to a quota limit; however, production and sale of these sugars will require a license from the new Board. This is a specialized kind of sugar and its production and consumption is not in large amounts.

The law also calls for privatization efforts to continue, but the latest bids were cancelled by order of the Prime Minister.

Marketing:

The market year begins after the harvest and lasts until 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 Turkish Sugar Corporation, private producers, wholesalers and retailers handle the marketing of sugar.

The sweets and confectionary sectors in Turkey are undergoing changes. Production of chocolate and cacao products increased substantially compared to the traditional Turkish products such as Turkish delight and halva. The sector is also increasingly using SBS instead of beet-sugar because of cheaper prices.

Turkey levies a 135% import tax for sugar, but there is no such limitation for the imports of non-sugar sweeteners. Despite annual fluctuations, registered sugar imports are negligible (less than 5 thousand metric tons) and are limited to specialty sugar that is not domestically produced (aimed for medical, laboratory use, etc.). Turkey has reduced sugar smuggling in recent years with the help of increased controls and preventive measures taken by the Sugar Board. Registered beet sugar and SBS imports for the past five years are compared below.

ALL SUGAR IMPORTS (Thousand MT)		
Years	Beet Sugar	Starch Based Sugar
2010	4.2	8.8
2011	4.7	11
2012	5.5	11.2
2013	9	13.2

Source: TUIK (Turkish Statistics Institute)

Production, Supply and Demand Data Statistics:

Sugar Beets Turkey	2012/2013		2013/2014		2014/2015	
	Market Year Begin: Sep 2012		Market Year Begin: Sep 2013		Market Year Begin: Sep 2014	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	290	290	280	291		315
Area Harvested	279	279	279	290		310
Production	15,000	15,000	15,000	16,506		16,430
Total Supply	15,000	15,000	15,000	16,506		16,430

Utilization for Sugar	15,000	15,000	15,000	16,506		16,430
Utilization for Alcohol	0	0	0	0	0	0
Total Distribution	15,000	15,000	15,000	16,506		16,430
1000 HA, 1000 MT						

Sugar, Centrifugal Turkey	2012/2013		2013/2014		2014/2015	
	Market Year Begin: Oct 2012		Market Year Begin: Oct 2013		Market Year Begin: Oct 2014	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	355	355	157	157		103
Beet Sugar Production	2,130	2,130	2,200	2,300		2,300
Cane Sugar Production	0	0	0	0		0

Total Sugar Production	2,130	2,130	2,200	2,300		2,300
Raw Imports	0	0	0	0		0
Refined Imp.(Raw Val)	5	5	5	9		10
Total Imports	5	5	5	9		10
Total Supply	2,490	2,490	2,362	2,466		2,413
Raw Exports	0	0	0	0		0
Refined Exp.(Raw Val)	33	33	20	63		40
Total Exports	33	33	20	63		40
Human Dom. Consumption	2,300	2,300	2,260	2,300		2,300
Other Disappearance	0	0	0	0		0
Total Use	2,300	2,300	2,260	2,300		2,300
Ending Stocks	157	157	82	103		73
Total Distribution	2,490	2,490	2,362	2,466		2,413
1000 MT						