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Turkey

Grain and Feed Annual

Turkey Grain and Feed Annual Report

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Report Highlights:

Turkey's production of wheat is forecasted at 17.5 million metric tons (MMT), barley at 5.4 MMT, corn at 5.5 MMT and paddy rice at 731,000 metric tons (MT) for upcoming marketing year (MY) 2016/17. All these estimates are down compared to production in MY 2015/2016. Weather conditions for MY 2016/17 are still a big concern and have already negatively affected wheat and barley in Central Anatolia. Due to high returns expected, some corn producers are expected to plant cotton and oilseeds instead of corn in the upcoming season. According to new budget, the GOT plans to provide subsidy support of 11.6 billion of TL (\$ 3.4 billion) to farmers.

Commodities:

Wheat

Barley

Corn

Rice, Milled

Executive Summary:

Weather conditions for the MY 2016/17 are still a big concern and have already affected wheat and barley in Central Anatolia. Dry weather in November and December 2015 in Central Anatolia and Southeast Anatolia caused some damage. The Thrace region of Turkey has the best conditions at the moment for wheat growth.

In 2015, Turkey produced more than 400,000 MT of certified wheat seed, which is an increase of 100% from 2006. Seventy five percent of wheat area was planted with certified wheat seed in 2015.

Winter wheat planting, which finished in October 2015, was nearly 45,000 ha below the previous year. The decrease was mainly due to crop rotation purposes and farmers switching to vegetables because of their higher prices. After a record harvest, most farmers were happy with TMO's procurement price.

Although it is still early to reliably forecast MY 2016/17 wheat production, Post estimates it will decrease to 17.5 MMT (from 19.5 MMT), 2.4 MMT of which is durum wheat, assuming sufficient rain and favorable conditions from April to May.

Due to high returns for cotton and soybeans, some corn producers are expected to plant cotton and oilseeds instead of corn, leading to a decrease in the area planted to corn in MY 2016/17. Corn area is estimated at 620,000 ha for MY 2015/16 and forecasted at 570,000 ha for MY 2016/17. Corn production is estimated at 6.2 MMT for MY 2015/16 and forecasted at 5.5 MMT for MY 2016/17.

For MY 2015/16, wheat imports into Turkey are expected to reach at 3.5 MMT with a record level of 5 MMT of wheat products exports, mostly in the form of flour with an increasing amount of pasta.

Rice planting is expected to decrease a bit and is forecasted at 96,000 ha area in MY 2016/17. Rice production is forecasted at 731,000 MT in MY 2016/17.

Turkish Grain Board (TMO) procured 5.5 MMT of grain in MY2015/16, 3.3 MMT of which is wheat, 474,000 MT barley, 10,000 MT ryes and 1.7 MMT of corn. After a record harvest, most farmers were satisfied with TMO's procurement price. MY2015/16 trade in Turkey was characterized as slow trade and by one dominant player: TMO holds the country's largest grain stocks. International grain trade remained under the former estimations due to TMO's policy.

The new Minister of Food Agriculture and Livestock was assigned and the GOT plans to change TMO's intervention role and storage capacity. According to new budget, the GOT plans to provide subsidy support of 11.6 billion of TL (\$ 3.4 billion) to farmers.

Production

Wheat

Rainfall in MY 2015/16 was significantly lower than the previous year throughout the whole country. Average rainfall in Turkey from October 2015 through February 2016 was 304.8 mm. During the same period the previous year, rainfall was 361.1 mm. This amount of rainfall is 7.2 percent lower than the national historical average and 15.6 percent lower than last year.

The areas with the greatest decrease in rainfall were the Mediterranean /Aegean region, followed by the Southern East and Central Anatolia regions. The cumulative rainfall from October to January in the Mediterranean region this season was 262.3 millimeters (mm), while the average level for that region is 456.9 mm. The only regions with an increase were East Anatolia and Black Sea, which had 22.3 and 13.2 percent more rain than the previous year.

Table 1: Cumulative Rainfall in Turkey

Turkey: Recent Rainfall Levels				
Region	Oct 2015- Feb 2016 (mm)	Oct 2014-Feb 2015 (mm)	Normal (mm)	Oct 2015- Feb 2016 Deviation from normal
Thrace	377.2	452.2	395.3	-5 %
Aegean	316.0	490.8	386.0	-18 %
Mediterranean	262.8	542.9	456.9	-41 %
Central Anatolia	180.2	212.0	202.3	-11 %
Black Sea	415.2	366.7	362.2	+20 %
East Anatolia	324.2	265.0	287.1	+13 %
South East Anatolia	314.4	384.1	354.4	-11 %
Turkey Total	304.8	361.1	328.3	-7 %

Source: Turkish State Meteorological Service

Almost all parts of Turkey experienced dry weather conditions in November and December 2015. Until March 2016, the Marmara, Aegean, Black Sea regions received heavy rainfall but the Konya and South Central Anatolian areas didn't get enough rainfall compared to the previous year. Konya area, South East and Mediterranean region had minimal rainfall in the Autumn of 2015. Dry weather in November and December 2015 in Central Anatolian and Southeast Anatolia caused a small amount of damage to the crop. The Harran and Cukurova areas suffered a drought for more than 2 months after wheat planting, forcing some farmers to have to re-plant wheat or switch with corn. Central Anatolia was also very dry until heavy snow came in January. Late February and March saw fairly heavy rainfall throughout most of the country. Rainfall in February created some flood damage in East Anatolia and Black Sea region. High moisture may lead to susceptibility of yellow rust in the Thrace and Aydin regions.

Winter wheat planting, which finished in October 2015, was nearly 45,000 ha below the previous year. The decrease was mainly due to crop rotation purposes and farmers switching to vegetables because of their higher prices.

Although it is still early to reliably forecast MY 2016/17 wheat production, wheat production is forecast at 17.5 MMT in MY 2016/17, assuming sufficient rain and favorable conditions will be from April to June.

The Turkish Government provides support (85 TL/ha) for usage of certificated wheat seed in order to increase quality. In 2015, Turkey produced more than 400,000 MT of certified wheat seed, which is an increase of 100% from 2006. Turkish Grain Board's (TMO) protein-based procurement policy also led farmers to use certified seed. Farmers can get up to 7 percent higher price according to quality produced (bugs ratio and protein). Seventy five percent of wheat area was planted with certified wheat seed in 2015.

Central Anatolia is the main grain supplier of Turkey. Wheat and barley are the traditional products of this high plateau region. So far in MY 2016/17, rainfall in the region is below normal levels. Total wheat area in Central Anatolia is 3,000,000 ha and the average yield is 2 MT/ha. Nearly half of the fields are unirrigated and yields are directly linked to rainfall. Fields were generally affected from winter drought, especially area near Konya, such as Altinekin, Karatay, Kadinhani and Karapinar. Farmers in Turkey like to try new technology to try to increase the yields. Nowadays subsurface irrigation methods are becoming popular among the farmers in Central Anatolia.

Of the total 5.1 MMT of wheat forecast to produce in Central Anatolia in MY 2016/17, 1.1 MMT will be durum wheat. Durum wheat is very popular among farmers during MY 2016/17 planting, which was 10 percent more than last year.

Although some traders are optimistic for spring rainfall, Post has observed problems with crop growth. The major problem in Central Anatolia is late germination of around a month. This may increase as heat stress is a possibility in spring. Soil moisture levels are low compared to last year. In some areas, weak root development occurred. Despite normal/average temperatures, a high heat difference between day and night is another problem. The application of extra fertilizer and irrigation, where possible, has already increased the cost of wheat production in the region.

The Cukurova region has 260,000 ha of wheat is expected to plant in MY 2016/17. The wheat area slightly will decrease in MY 2016/17 compared to MY 2015/16 because some farmers from Tarsus to Osmaniye switched from wheat to sunflower seed. Wheat development is good in irrigated fields. Average wheat yield in the region is 4.5 MT/ha. The Cukurova region is expected to produce 1.17 MMT of wheat in MY 2016/17.

In the Thrace region, the wheat area will increase due to crop rotation purpose. Some farmers switched to wheat from sunflower because of the prices. The Thrace region has the best conditions at the moment for wheat growth. Plant development is favorable. That region will try to compensate for the losses in Central Anatolia with a bumper harvest. In the Black Sea and East Anatolia regions, the wheat area will decrease due to farmers using crop rotations, which leads to less wheat being planted this year. The Thrace region is expected to produce 3 MMT of wheat in MY 2016/17.

Table 2: Turkish Wheat Production by Region

Region	MY 2010 Avg.	MY 2011 Avg.	Long term Avg.	Harvest Time	MY 2014		MY 2015		MY 2016	
					Harvest ed Area	Producti on (MT)	Harvest ed Area	Producti on (MT)	Harvest ed Area	Producti on (MT)

	yield (MT/H A)	yield (MT/H A)	yield (MT/H A)		(ha)		(ha)		(ha)	
Çukurova region	3.5-4.5	4.7	4.5-5.5	May10- June10	255,000	1,050,000	265,000	1,300,000	260,000	1,175,000
Hatay region	3	4.7	5-5.5	May25- June25	86,000	200,000	86,000	260,000	86,000	200,000
Southeast region	2	2.9	3-3.5	May15- June25	948,000	2,300,000	953,000	2,950,000	943,000	2,705,000
Central Anatolia	2	2.38	1.5-2	June25- July25	2,915,000	4,600,000	3,000,000	6,550,000	2,980,000	5,100,000
Polatlı	2.8-3	3.4	3.3	June15- July20	100,000	200,000	130,000	400,000	130,000	300,000
Aegean region	2-2.5	3	3	May25- June25	500,000	1,650,000	500,000	1,800,000	490,000	1,700,000
Aydin region	4.5	4	4	May20- June10	6,000	45,000	6,000	50,000	6,000	50,000
Thrace	3.5	4.1	4.1	June15- July15	600,000	2,300,000	600,000	2,500,000	620,000	3,000,000
Other regions	1.3	1.4	1.5	June15- July15	2,300,000	2,905,000	2,320,000	3,690,000	2,300,000	3,270,000
Total	2.12	2.3	2.3	May15- July15	7,710,000	15,250,000	7,860,000	19,500,000	7,815,000	17,500,000

In MY 2016/17, wheat area in South East Anatolia decreased 10% due to crop rotation purpose. The main switch was from milling wheat, as durum wheat prices were more attractive than milling wheat prices. Durum wheat area has been increasing over time in Turkey. Late germination and soil moisture levels are the main problems in the region.

Southeast Anatolia has 260,000 ha of durum wheat area. MY 2015/16 yields are recorded as 4.5 MT/ha, which was above average yields for the Southeast Anatolia region. The quality of the durum wheat was better this year compared to the previous years. The durum wheat area will gain against milling wheat area in the region in MY 2016/17. There will be about than 1.3 MMT of durum wheat production in

South East Anatolia, assuming sufficient rain and favorable conditions until the harvest. Of the total 17.5 MMT of wheat produced in Turkey in MY 2016/17, 2.4 MMT is durum wheat.

The Government of Turkey (GOT) continues to support wheat production with production premium programs. According to 2015 production bonus announcements, the wheat premium remained at 50 TL/MT (17\$/MT). The GOT is continuing to provide different benefits to farmers under the umbrella of certificated seed, soil analysis, diesel and fertilizer supports.

Table 3: Government support program for wheat (TL/MT)

Turkey: Government support for wheat producers					
Year	Certified seed (TL/ha)	Soil analysis (TL/ha)	Premium (TL/Ton)	Diesel (TL/ha)	Fertilizer (TL/ha)
2009	50	22.5	45	29.3	38.3
2010	50	25	50	32.5	42.5
2011	60	25	50	37.5	47.5
2012	60	25	50	40	50
2013	75	25	50	43	55
2014	75	25	50	46	60
2015	85	25	50	48.5	66

Fertilizer prices in Turkey have decreased recently. One reason is that the government dropped the valued-added tax from 18 percent to one percent in early January 2016. The base price for fertilizer decreased 15% compared to last year and farmers are taking advantage of the new lower input costs. Because of the new lower prices, farmers spread extra fertilizer in the first week of March and benefited from rain shortly thereafter in some regions.

Table 4: Fertilizer price

Turkey: Fertilizer prices			
Type of fertilizer	March, 2015 (TL/MT)	October 2015 (TL/MT)	March, 2016 (TL/MT)
Compound fertilizers DAP (Diammonium phosphate)	1,650	1,850	1,395
Nitrate fertilizers Urea	970	815	780

After an abundant harvest, The Turkish Grain Board (TMO) was an active player in the wheat market in MY 2015/16. TMO announced 2015 grain intervention prices on June 6, 2015 and stopped its sales of wheat (milling, pasta and biscuit) and barley because of the start of the domestic wheat and barley harvest. TMO has started to buy grain at 285 different points in Anatolia. They announced the intervention price for Anatolian Hard Red Milling (AKS) Wheat at 862 TL/MT (\$325/MT), 976 TL/MT (\$368/MT) for durum wheat, and 645 TL/MT (\$177/MT) for barley. Prices which are given in the table

below differed up to 7 percent more, according to quality, since 2015. TMO procured 3.3 MMT of wheat in MY 2015/16.

Table 5: TMO Grain procurement between June 2015 and February 2016

TMO Grain procurement from June 2015 to February 2016							
Type of Grain	Durum Wheat	Milling Wheat	Barley	Rye	Oat	Corn	Paddy Rice
Quantity (MT)	195,000	3,111,000	473,000	10,000	472	1,750,000	3,000

Also, the GOT gives supports for fertilizer, gasoline, certified seed and soil analysis. Premium and supports reach 127 TL per ton. So a farmer can gain (826+127) 989 TL (\$373) per ton for milling wheat.

Table 6: Historic TMO Wheat intervention price and premiums

Turkey: TMO wheat intervention prices and wheat premiums (TL/MT)		
Year	Intervention price	Premium
2007	425	45
2008	500	45
2009	500	45
2010	550	50
2011	605	50
2012	665	50
2013	720	50
2014	-	50
2015	862	50
	\$325*	\$21.8*

*convert to dollars as date of June 2015

Barley

Typically barley is grown on rain-fed plateaus. Barley planting area is slightly lower compared to the previous year due to a large amount of fallow area in Central Anatolia. Last year, because lots of precipitation was expected, farmers took many fields that they typically have fallow and brought them back into production, so this year they will be allowing those fields to rest, per the typical rotation. Barley production in Turkey in 2016/17 is forecast at 5.4 MMT, down 25% from the 2015/16 estimate. The decrease is primarily due to dry weather conditions.

Barley is the traditional product of unirrigated high plateau regions in Central Anatolia and GAP Regions. So far in MY 2016/17, rainfall in these regions is below normal levels. Barley in the GAP region is in much better condition than in Central Anatolia though. Dry weather conditions and low surface moisture damaged barley crops in Central Anatolia, especially in Konya, Polatli and the Corum region.

Corn

Corn planting is increasingly popular among Turkish farmers due to high returns, government support, TMO's interventions and more availability of irrigated land, due to recent investments in new irrigation projects. Post revised the corn production estimation to 6.2 MMT, an increase of 100,000 MT, in MY2015/16, due to unexpectedly large second crop.

Due to high returns for cotton and oilseeds, some corn producers are expected to plant cotton and soybeans instead of corn. Disappointment for farmers on second crop corn returns was another reason. This will lead to a decrease in the area planted to corn in MY 2016/17. It should be noted that the trend of newly-available irrigated land will begin to slow next year. Corn area is estimated at 620,000 ha for MY 2015/16 and forecasted at 570,000 ha for MY 2016/17.

Corn production is estimated at 6.2 MMT for MY 2015/16 and forecasted at 5.5 MMT for MY 2016/17. The yields for winter and summer crops in Turkey are still dependent on the rains during the spring and summer.

First crop corn planting is common in the Cukurova, Aegean and Marmara regions. Due to wet weather conditions, first crop corn plantings were delayed in the Aegean region. First crop corn area remained the same in the Marmara region. First crop corn planting has begun in Adana. The high returns for cotton and soybeans attracted corn farmers to plant these instead of corn, hence there will be a 10 percent decrease in corn area in the Cukurova region. Corn area will remain the same in the Central Anatolia region - farmers there were satisfied with the returns last year.

Second crop corn is a common product in Southeast Anatolia, especially in Sanliurfa and Mardin. Cukurova farmers also grow second crop corn. There will be 20% decrease in the second crop corn plantation in MY 2016/17, mainly because of the decrease in wheat production as some acreage was switched to cotton this year (corn is normally planted following wheat harvest).

Rice

Average rainfall from October 2014 through February 2016 was similar with the previous year Meric-Ergene Basin and Kizilirmak Basin in the Thrace region, which is where the main fields are for rice planting. The most productive region is Thrace, which contains 10-15% of Turkey's total rice plantation area. Ipsala alone produces 20,000 ha of paddy rice. Rice planting will start at the end of April 2016 and finish by the end of the next month. Although there are favorable weather conditions and increased water levels in several dams, MY 2016/17 planting area will decrease 2% due to some farmers' complaints about decreased profitability and marketing issues – they are very dissatisfied with rice prices. This is the second year that farmers are upset with paddy rice price. Rice yields depend on rainfall at the end of August and early September. The harvest normally begins in September and ends in October. Post forecasts paddy rice production at 731,000 MT in MY 2016/17.

The Paddy Rice Farming Act was published in 1936 to control paddy rice farming. According to this act, farmers should have permission to grow paddy rice. Each county should establish a paddy rice commission and farmers must apply to the commission to get permission to grow paddy rice. There is a 25 TL/ha permission fee that farmers should pay. The main reason for this act was to control malaria and to distribute water fairly among paddy rice farmers. Illegal paddy rice farming carries a penalty of 610 TL/ha. This also restricts paddy rice area increase. Farmers started to apply for growing paddy rice on January 21, 2016 in Ipsala.

Paddy rice area has increased 30 percent in the last ten years due to large dam and irrigation projects in South Marmara, the Samsun region and the Thrace region. The government is continuing dam and irrigation projects in South Marmara, which will provide an additional 10,000 ha of new paddy area in the Thrace region in the next years.

Edirne region produces more than 50 percent of country's paddy rice production. Cankiri and Corum region produces 22-24 percent of Turkey's paddy rice production. The Osmancik variety now dominates the whole area (85% of total seed). Turkish farmers are also trying new varieties such as Galileo and Cammeo.

The Government of Turkey (GOT) continues to support rice production with production premium programs. According to 2015 production bonus announcements, the paddy rice premium remained at 100 TL/MT (35\$/MT). The total budget of that support was 65 million TL, which was given to the farmers according to their amount of production after the harvest.

Consumption

Wheat

Turkish domestic wheat consumption is forecast at 17.8 MMT in MY2016/17, down 200,000 MT from the 2015/16 year. Food, seed and industrial consumption remains the same, so the decrease in consumption is in the feed and residual use sector, which typically varies inversely to the amount of wheat produced; in high production years, there is abundant low-quality feed wheat.

Bread is still the staple food for daily life of the general population. In metropolitan cities like Istanbul, Ankara and Izmir, the diet has shifted from bread consumption to protein based diets, but still bread carries a lot of cultural value in Turkish society that is very hard to change, even with changing lifestyles and diets.

Political issues in neighboring countries are continuing to affect every aspect of Turkey, including wheat consumption. Turkey, with its 78 million person population, is currently hosting three million of refugees (and growing), which is one million more than they had the previous year. On the other hand, the year 2015 has been a difficult one for Turkey's tourism sector due to regional, political, and economic instability. The tourism sector is expected to get worse in 2016, according to booking statistics. In terms of Turkish food consumption, declining demand for bread in Tourism sector will be compensated by increases in consumption of new refugees.

Turkey is in a very strong position in terms of wheat products production. Besides high domestic consumption, increasing exports are the driving force of the wheat products industry. Turkey produces more than 21 million MT of a wide range of wheat products.

Table 7: Wheat Products Industry

Wheat Products Industry			
Type	Active Factory	Production Capacity/Year (MMT)	Capacity use rate/Year %

Wheat Flour	725	38	45
Pasta	23	2	70
Bulgur	90	1.4	52
Biscuit/Cracker	33	1.7	60
Semolina	13	0.6	75

Wheat flour price increased by 10 percent compared to last year. Bread prices increased 25 percent in Ankara and Istanbul in early days of 2016 after two years.

Table 8: Average wheat flour price at the Bandırma Commodity Exchange

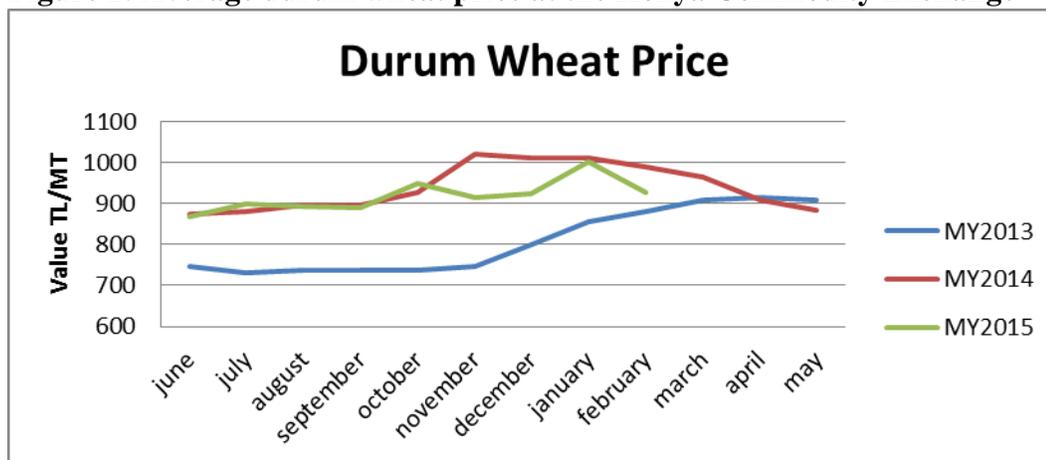
WHEAT FLOUR PRICE MY 2015/16 (50 TL/kg)								
June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
61.39	61.23	61.73	62.87	62.46	61.80	62.29	64.09	64.59

Durum wheat demand has been very strong due to high levels of exports. New lines and new investments are continuing. There are active 23 pasta factories in Turkey with more than 2 MMT/Year production capacities. Capacity use rate is over 70 percent.

Despite high production capacity, average Turkish pasta consumption is about 6 kg/person in 2015. Representatives of Pasta Industrialist Organization aim to increase that to 10 kg/person through promotion campaigns in coming years as they see Turkish pasta consumption as very low compared to Italy, which has 26 kg/person annually.

The Konya CME is the main commodity market exchange for wheat in Turkey. Due to higher production levels compared to MY 2014/15, the durum wheat price decreased in MY 2015/16. The average price of high quality red milling wheat in the Konya CME in MY 2014/15 was 939 TL/MT (US\$ 402/MT) and 919 TL/MT (US\$ 318/MT) in MY 2015/16 (as of March 2016). High durum wheat on the Konya CME is 980 TL/MT (US\$ 338/MT) in March, 2016.

Figure 1: Average durum wheat price at the Konya Commodity Exchange



The Polatli CME is the main commodity market exchange for red milling wheat in Turkey. The average price of high quality red milling wheat in the Polatli CME in MY 2014/15 was 934 TL/MT (US\$

399/MT) and 922 TL/MT (US\$ 320\$/MT) in MY 2015/16 (as of March 2016) . High quality red milling wheat on the Polatli CME was 953 TL/MT (US\$ 328/MT) in March, 2016.

TMO has announced the selling price for wheat at harvest time in MY2015/16. Stocks are open for all domestic buyers with the prices below. TMO interventions in the market via the selling of stocks were not very effective in controlling prices because of the bearish market in the world. All prices are lower than previous years' domestic prices. TMO has been trying to sell milling wheat, durum wheat and corn in stocks for export holders who are flour, biscuits, cracker, feed and poultry exporters under Inward Processing Regime (IPR) since the harvest. The prices which these firms pay (who are planning to export their products) are about equivalent to the world price of that commodity.

Table 9: Turkey Wheat Selling Price of TMO-purchased Grains

TMO sell price					
Type	Sell Price (TL/MT), (\$USD/MT)				
	November '15	December '15	January '16	February '16	March '16
Anatolian Hard White Wheat	930-960	930-960	930-960	935-965	935-965
	\$318-328	\$320-330	\$312-322	\$319-329	\$322-332
Anatolian Hard Red Wheat	930-960	930-960	930-960	935-965	935-965
	\$318-328	\$320-330	\$312-322	\$319-329	\$322-332
Other Red And White Wheat	900-930	900-930	900-930	905-935	905-935
	\$308-318	\$309-319	\$302-312	\$309-317	\$312-320
Durum	1040- 1080	1040-1080	1040-1080	1045-1085	1045-1085
	\$356-370	\$357-371	\$349-362	\$355-369	\$359-372
Feed Wheat	820	820	820	825	825
	\$281	\$282	\$275	\$282	\$284
Imported (13 protein)	945	945	960	960	930
	\$324	\$325	\$322	\$328	\$321
Imported (13.5 protein)	960	960	945	945	915
	\$329	\$330	\$317	\$323	\$316

Note: This price is valid for non-import certificate holders, which is low percentage of sales compared to the sales under IPR.

Wheat consumption for feed sector forecast to be same with previous year due quality concerns for upcoming harvest.

Barley

Barley consumption in Turkey in 2016/17 is forecast at 5.9 MMT tons, down 15% from the 2015/16 estimate. The decrease is primarily due to low production forecast.

In MY 2015/16, due to higher production levels, the barley price decreased but it is projected to remain steady in MY 2015/16, partly due to intervention from TMO. The barley price at the Konya CME on March 21, 2016 was 679 TL/MT (US\$ 234/MT). The price of imported barley in March 2016 was CIF Marmara US\$ 172/MT

Table 10: Turkey Barley Selling Price

TMO sell price										
Type	Sell Price (TL/MT)									
	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Barley (imported)	-	-	-	-	-	740	660	740	740	710
Barley (domestic)	-	-	-	-	-	740	660	660	665	670

Barley traditionally has been the preferred feed grain in Turkey, especially for ruminants. Half of barley consumption as feed went into commercial feed production and the other half was fed directly to livestock or mixed on the farm. Feed companies can compensate easily for any losses in barley availability with residual and waste from the food industries such as brans.

Malting barley consumption, which is estimated at about 900,000 MT, has been steady in recent years.

Corn

Corn consumption in Turkey in 2016/17 is forecast at 7.05 MMT, up 7 percent from 6.55 MMT which was the 2015/16 estimate. The increase is primarily due to strong demand from feed sector assuming poultry exports increase as the sector expects. Both layer and broiler industries are expected to grow moderately in coming years in the view of growing domestic and export markets.

Domestic consumption of corn is dependent of the usage in the feed industries and mostly in poultry. Post revises corn consumption in MY 2015/16 is expected to remain about 6.55 MMT due to a decrease in feed and residual usage due to export interruption of broiler and egg laying sector in summer 2015 after the avian influenza outbreak in Turkey. Due to high customs duty, corn imports are directly related to poultry exports because exporters can import corn with zero tariffs under IPR. This export interruption affected the usage for corn in the ratios adversely.

There are two main users of corn in Turkey - the feed industry and the corn starch industry. The corn starch industry is controlled by the government through quota allocations. There are six starch companies; three of them are in Adana, two of them are in the Marmara region, and one of them is in the South East of Turkey. The total production capacity of the corn starch industry is 1.4 MMT. The sector uses about 900,000 MT of domestic corn.

Feed sector

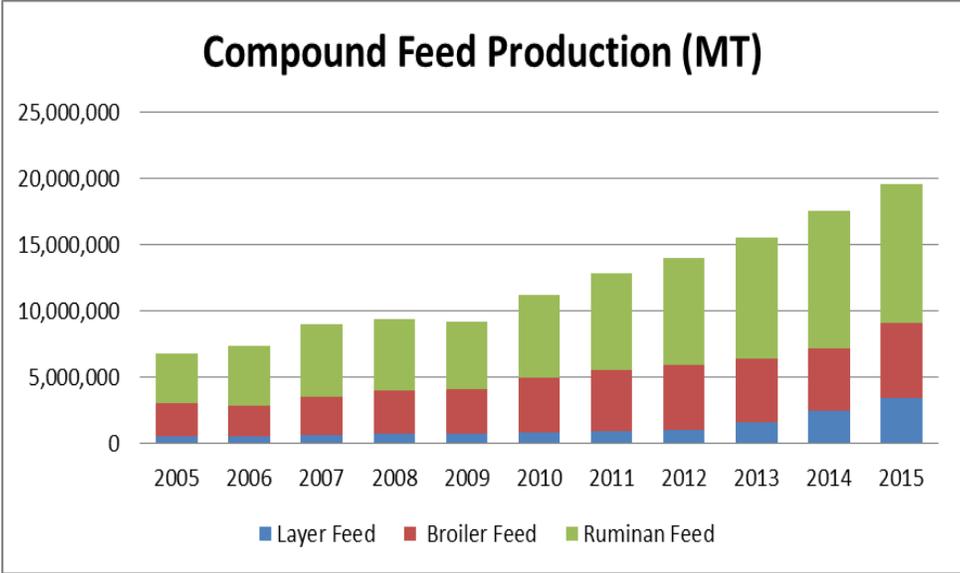
Rising household income has increased the demand for protein-based food in Turkey for many years. Due to the increasing the demand for livestock, poultry and aquaculture products, the feed industry is growing very fast as well. There has been a lot of new investments in Turkey for both dairy and recently in cattle feed lots. Turkey invested in extensive development of the broiler and egg industries.

There are more than 400 feed factories active in Turkey with more than 30 MMT/Year production capacity in total. Total compound feed production is about 20 MMT, up eleven percent compared to a year ago. The increase is partially attributed to some livestock feed operations and an increasing amount of on farm production which is now coming into the GOT's register system and being counted in the

statistics. In an effort to lower the high local red meat prices, the GOT has been offering support programs to maintain and increase domestic livestock production as well.

The Turkish livestock sector has been up and down over the last several years along with local milk and meat price fluctuations. The GOT has introduced many incentive programs to increase domestic livestock production and lower local red meat prices with limited success for years. There has been lots of press on food prices and food inflation. In recent months, low local wholesale milk prices are hurting production, and due to high red meat prices, some farmers have reportedly slaughtered their stocks, causing growth expectations to decline. In 2015, both red meat and milk production have increased: red meat production was up about 14 percent and milk production about one percent.

Figure 2: Composition of Compound Feed Production over time (2005-2015)



The currency in Turkey is the Turkish Lira (TL), which peaked above 3.05 TL/\$1 in September 2015 and is in the 2.87-2.91 TL/\$1 range as of early March 2016. The TL has lost roughly a quarter of its value to the dollar since December 2014. The U.S. dollar has appreciated 60 percent against the TL in the past two years. Currency fluctuations have caused bankruptcy, especially in the feed sector where companies import raw materials for feed in U.S. dollar value which they then sell to the sector in Turkish Lira in credit sales. As a result, many companies have lost money because of the fluctuation in exchange rates.

Broiler and egg production have increased, with an average of seven percent annually, during the last ten years. This comes as a result of increasing domestic consumption and exports, which are mostly to neighboring countries. Especially the second part of year 2015 has been a difficult time for Turkey's feed sector. The industry has struggled with several problems recently, the major one this year for the industry being the effects of avian influenza, which affected production of eggs, exports of eggs and poultry meat, and poultry meat production.

Another issue is that the new implementation period for a law on poultry feeding which would impact the Turkish poultry sector was going to start on January 1, 2016, as reported in December 28, 2015

GAIN Report `New Rules by Turkish Government on Poultry Feed Restrictions` number TR5067. But at the last minute, it has been postponed for one year and will come into force on January 1, 2017.

There was negative publicity about GMO-fed poultry, and unscientific accusations of antibiotic use. Despite these, domestic consumption of eggs and consumption of poultry meat still increased in Turkey, but at rates lower than originally expected.

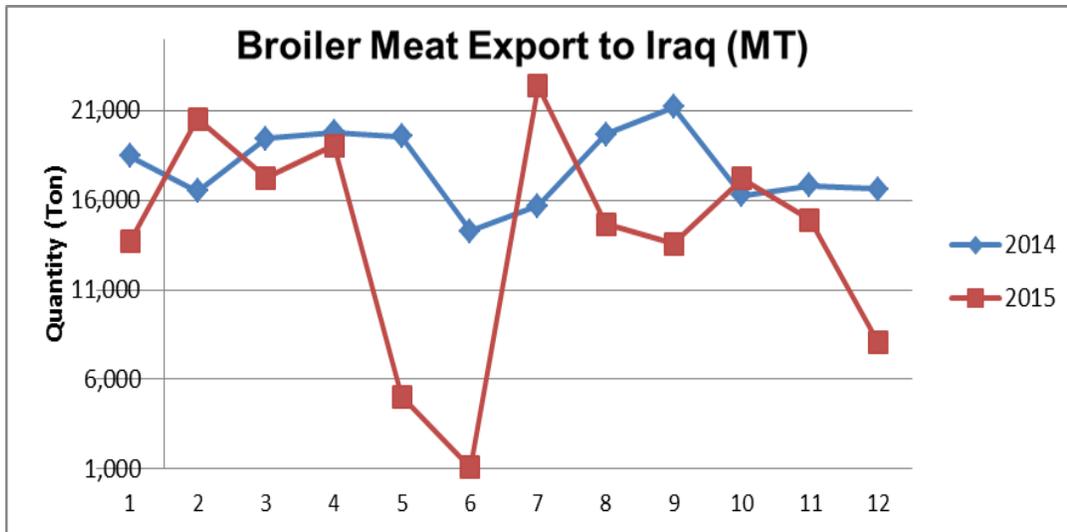
Turkey continues to export about twenty-five percent of its egg and broiler production mostly to neighboring countries. Main destinations were Iraq (167,360 MT), Hong Kong (38,190 MT) and Russia (21,515). In 2016, poultry meat production is expected to increase about five percent due to an increase in domestic consumption and exports. Despite political instability in the neighboring countries which are the largest export market, in 2016, exporters hope to gain back some of their earlier losses.

Table 11: Broiler Meat Exports

QUANTITY OF BROILER MEAT EXPORTED							
Partner Country	Quantity			% Share			% Change
	2013	2014	2015	2013	2014	2015	2015/2014
Iraq	204,640	214,232	167,360	56.28	52.96	49.48	- 21.88
Hong Kong	40,386	44,458	38,190	11.11	10.99	11.29	- 14.10
Russia	747	19,945	21,515	0.21	4.93	6.36	7.87
Tajikistan	16,758	20,186	17,780	4.61	4.99	5.26	- 11.92
Syria	23,787	19,386	17,285	6.54	4.79	5.11	- 10.84
Libya	10,314	11,547	15,983	2.84	2.85	4.73	38.42
Total	363,636	404,512	338,252	100.00	100.00	100.00	- 16.38

Turkey’s poultry meat and egg exports in the summer months were interrupted following the avian influenza outbreak in Turkey, but production and domestic consumption were not affected. An Iraqi import ban on Turkish poultry meat, poultry meat products, and eggs was lifted in August. But exporters are continuing to struggle with difficulties in logistics due to instability in the border areas of Syria and Iraq.

Figure 3: Broiler Meat export to Iraq 2014-2015



Egg production in modern farms has doubled between 2006 and 2013, as a result of increases in both domestic consumption and exports. Total production reached 17.6 billion pieces (eggs) in 2014. It declined to 17.2 billion pieces due to interruption in exports in 2015. Domestic prices declined after the avian influenza outbreak stopped exports. With increasing domestic demand and dynamic export capacity, it is projected to continue to grow in coming years.

Table 12: Average commodity price at the Bandırma Commodity Exchange

Turkey: feed price (TL/MT)								
Type of commodity	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15
Milk	1400	1470	1300	1200	1170	1130	1130	1175
Meat	1100	1150	1050	1000	970	960	960	995
Egg	790	830	800	770	750	730	730	760

Turkey continues to export about twenty-five percent of its egg and broiler production mostly to neighboring countries. The avian influenza outbreak stopped exports but domestic consumption of eggs was estimated to have increased to 195 pieces per person in 2015. The industry members are continuing promotion programs to reach the European average consumption of 250 pieces.

Table 13 : Turkey Egg Production and Export

Turkey: Egg Production and Export (million)			
YEAR	PRODUCTION	EXPORT	%
2006	8,401	195	2.32
2010	13,980	2,143	15.33
2011	14,000	3,588	25.63
2012	15,677	4,080	26.03
2013	16,707	4,522	27.07
2014	17,607	4,649	26.40
2015	17,206	3,518	20.44

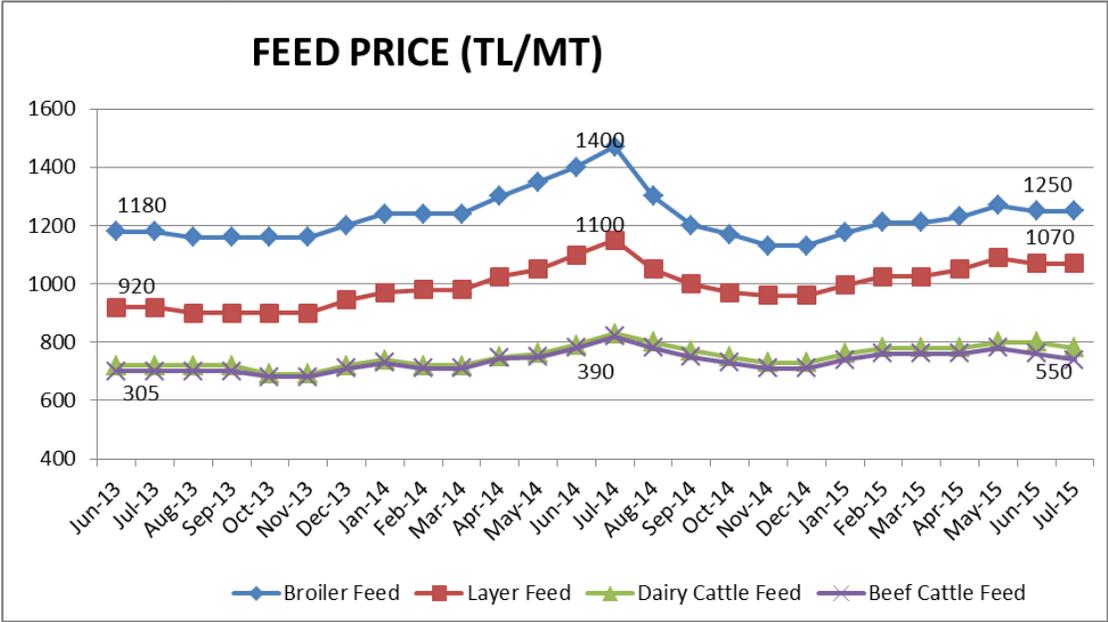
Despite devaluation of Turkish Lira, a high yield domestic harvest and bearish commodity prices in the world led feed prices to be stable in recent months. The GOT drooped tax from 8 percent to 0 percent on

compound feed on January 2016. However, DDGS and corn gluten meal were not included in this decision. The new regulation will affect demand for both products in the ratios adversely due to an 18 percent VAT and 11.5 percent customs duty. According to feed industry experts, they had to adjust prices up after January because substitute products like brans' and meals' prices increased in parallel with increasing feed ratio in the market after this decision.

Table 14: Feed prices in recent months

Turkey: feed price (TL/MT)								
Type of Feed	Jun-15	Jul-15	Aug 15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16
Broiler Feed	1,250	1,250	1,250	1,250	1,170	1,100	1,100	1,100
Layer Feed	1,070	1,070	1,070	1,070	1,030	1,000	1,000	1,000
Dairy Cattle Feed	800	780	780	820	780	760	760	760
Beef Cattle Feed	760	740	740	760	740	720	720	720

Figure 4: Average Feed Prices



Commodities under HS code 23, such as meals and brans, are increasingly popular in the feed sector (See Table 15 below) due to relatively low duty tax. For instance, sunflowerseed meal and cottonseed meal import duties are 11.5 percent for EU and EFTA countries and 13.5 percent for all other sources. The soybean meal import tax is zero from EU sources and Bosnia but 5 percent for meal from the rest of the world. The wheat bran import tax is zero from Bosnia but 5 percent from the rest of the world (around one quarter of 2015 imports in this category were wheat bran). According to availability of corn, barley, and wheat, and their prices (and ability to buy them duty free from TMO or import them under the IPR), feed companies change their feed ratio, and imported residues are becoming more popular as a substitute.

Table 15: Imports of Residues and Waste from Food Industries to Turkey

Commodity: HS 23, Residues And Waste From The Food Industries; Prepared Animal Feed				
Annual Series: 2011 – 2015 (MT)				
2011	2012	2013	2014	2015
2,383,696	3,457,110	3,724,896	3,777,002	3,819,233

Rice

Rice consumption in Turkey in 2016/17 is forecast at 760,000 tons, down 1% from 770,000 the 2015/16 estimate. The decrease is primarily due to per capita consumption changes.

Rice consumption has tended to decrease for several reasons. Turkish consumers prefer the Calrose, Baldo and Osmancik varieties which are medium grain rice. In Turkish cuisine, rice is very important for making pilaf. Most people prefer the Baldo and Osmancik (domestic variety) over Calrose. Despite Turkish consumer's taste preference, Turkey has imported low quality rice in recent years because of costs. Some rice companies have been blending a long grain Indian rice with Osmancik varieties (which have different cooking and flavor characteristics) to have better prices, but this creates some consistency and quality problems. Consumers have noticed these adulterations and complained about taste and quality of rice recently and that it appears to be different than in the past. Representatives of rice industry lobbied the government to punish these companies.

Poor demand in the retail and food service sector is also another reason. Normally, Turkey is a top tourist destination and hosts more than 30 million tourists every year, mainly from Germany, Russia and England. This year, however expectations are not optimistic for upcoming tourist season due to ongoing conflict with Russia, as well as the regional security issues. Russian tourists weren't allowed by their government to vacation in Turkey after Turkey shot down a Russian jet in Turkish airspace near the Syrian border in November 2015. Some traders have already complained about losses resulting from the decline in the tourism sector.

Another reason for the decreasing per capita consumption is that rice retailers have faced pressure from afternoon TV programs that recommend reduced rice consumption for a healthy diet in last years. Annual rice consumption is approximately 7 kg/person which is slightly reduced due to reasons mentioned above.

According to several studies on rice consumption, Turkish families prefer to buy rice once per month. There are 1, 2.5, and 5 kg packages available at the markets. According to a survey focused on consumer's preferences which was done by the private sector, consumers are very sensitive to price (50%), quality (35%) and variety (30%). Most consumers are reluctant to pay more money for better or exotic varieties.

Trade

MY2015/16 trade in Turkey was characterized as slow, and is dominated by one player, the Turkish Grain Board. After a record harvest, most farmers were happy with TMO's procurement price. TMO has the largest grain stock in the country after they procured 3.3 MMT of wheat, 474,000 MT of barley, 10,000 MT of rye and 1.7 MMT of corn. International grain trade remained under the former estimations due to TMO's policy. Instead of exporting, TMO preferred to sell its stock to domestic market at the

world price, which was lower compared to the TMO procurement price. In general, imports were low this year, because TMO sold their stocks to those who might have imported. Exports were also low as TMO held stocks because world prices are low.

Additionally, Turkey’s biosafety law continues to impact importers. While Turkey has recently approved some additional genetically engineered corn and soy traits (events) for import for feed use in Turkey, detection of unapproved traits (even as dust in shipping containers) can still cause rejection of shipments. This unavoidable low level presence of varieties not unapproved for use in Turkey continues to be a major issue in imports in all commodities. Though there is no genetically engineered wheat grown in the United States, the Turkish wheat market has been still practically closed for U.S. wheat due to testing requirements imposed in 2014 (which may find traces of GE soy or corn dust in wheat shipments).

Wheat

During the first eight months of MY2015/16, total wheat imports were 2.5 MMT. Despite increasing wheat production in MY2015/16, wheat products export is the factor driving the wheat imports. Post revised the wheat import estimation at 3.5 MMT in MY 2015/16 due to TMO’s strong sales for wheat product exporters after a record harvest. Russia is the main milling wheat supplier of Turkey with 2.1 MMT in MY2015/16. Mexico supplied 60,000 MT of durum wheat during the same period.

For MY 2016/17, wheat imports into Turkey are forecast at 4 MMT due to strong demand for high quality wheat from flour and pasta exporters.

There were rumors about the availability of Russian wheat after the downing of a Russian jet on the Syria-Turkey border on November. Russia threatened to stop exporting wheat to Turkey, but at the moment, Russian wheat is still available and there was not any interruption. The price of imported wheat is 188 USD/MT CIF for 13.5 percent protein.

Table 16: Turkish Wheat Imports (Origin)

TURKISH WHEAT IMPORTS (ORIGIN)				
Countries	MY2012/13	MY2013/14	MY2014/15	MY2015/16*
Russia	2,322,171	3,043,815	4,022,474	2,098,477
Mexico	84,901	175,135	302,630	59,728
Ukraine	150,201	128,478	246,934	144,498
Others	1,422,574	781,805	1,210,512	239,035
Total	3,979,847	4,129,233	5,782,550	2,541,738

* June 2015-January 2016

Table 17: Wheat foreign trade data in MY 2014/15 and MY 2015/16

TURKEY: WHEAT FOREIGN TRADE					
MONTH	IMPORT	IMPORT	EXPORT	EXPORT	

	MY 2014	MY 2015	MY 2014	MY 2015	
	(MT)	(MT)	(MT)	(MT)	
June	193,002	302,496	1305	262	
July	212,071	185,961	2252	613	
August	690,763	231,635	8804	18635	
September	669,410	335,788	14458	7003	
October	583,893	419,601	26573	12718	
November	823,789	456,126	10316	12657	
December	590,547	399,138	4758	600	
January	579,666	210,993	14251	0	
Sub-total (June-Dec.)	4,343,141	2,541,738	82,717	52,488	
February	392,652		1561		
March	505,264		755		
April	243,797		13		
May	297,695		385		
MY TOTAL	5,782,549	3,500,000*	85,431	60,000*	

*forecast

Turkey has ranked first in wheat flour export in the world in recent years, due to comparably cheap wheat of Black Sea region and its strategic location, Turkey acts as a hub for trade with its neighboring countries. Turkish flour exports have surged, reaching almost \$1 billion in 2014 and surpassing two million metric tons, making Turkey the world's largest exporter of flour with more than 100 destinations in the world.

The GOT applies a 130 percent tariff on wheat to protect domestic market. Domestic price for milling wheat currently is about \$300, while it is only \$200 in international market. But there is an open door for flour (and other wheat products) exporters to import tariff-free wheat. A number of Turkish agricultural exports benefit from Turkey's Inward Processing Regime (IPR) policy. The IPR has made it possible for Turkish wheat products, for example, to better compete internationally despite high, protected domestic prices. Flour exporters, as well pasta and biscuits exporters, gain import certificates which allow them importing wheat with zero tariff in order to produce and export flour. Almost all wheat import in MY2015/16 has been done under IPR with zero tariffs by wheat product exporter.

Also Turkish Grain Board (TMO) was very active with their about 3 MMT of wheat stocks in MY2015/16. TMO has been selling the wheat which they hold in stocks to import certificate holders who are flour, pasta, and cookies exporters under IPR since September. The price of milling wheat was 119-193 \$/MT according to harvest year and quality. TMO sold more than 2 MMT of wheat under IPR to processors/exporters in MY2015/16.

For MY 2015/16, it is expected that Turkey will use 5 MMT of wheat for exported flour and wheat products, up 25% from the 2014/15 estimate. The increase is primarily due to increasing exports with the help of abundant harvest and new markets in Africa.

For MY 2016/17, total wheat product exports are forecast to remain such a high level assuming to continue a strong demand from major consumers. Turkey is continuing to invest in milling facilities with new technologies. Diabetic flour and gluten free products are new trends among the millers.

Table 18: Turkish Wheat Flour Exports

Turkey: Quantity of wheat flour exports				
MONTH	MY 2013	MY2014	MY2015*	My2014-2015 % Changes
June	125,196	153,575	207,531	35.1
July	188,693	158,564	223,666	41.1
August	163,862	207,893	267,742	28.8
September	234,976	194,012	222,819	14.8
October	226,624	189,591	368,588	94.4
November	245,486	197,963	288,372	45.7
December	238,197	170,794	243,676	42.7
January	195,610	147,508	248,497	68.5
<i>Sub-total (June-Jan.)</i>	<i>1,618,644</i>	<i>1,419,900</i>	<i>2,070,891</i>	<i>45.8</i>
February	169,875	150,421		
March	176,637	205,254		
April	215,195	218,048		
May	177,509	254,914		
TOTAL	2,357,860	2,248,537	3,000,000**	

* June 2015-January 2016, **Forecast

In MY 2015/16, Iraq (840,000 MT), Sudan (320,000MT), Syria (180,000MT) and Angola (120,000MT) are the main consumers of Turkish wheat flour. Neighboring countries are still the largest market with 50 percent market share. In the first eight months of the year, Turkey exported two MMT flour. The most significant increase is in Sudan, which is attributed to humanitarian aid sourced from a Turkish company. Although anti-dumping measures significantly reduced Turkish wheat sales to far Asia, Turkey compensated it with new markets in Africa.

Table 19: Wheat Flour Export Markets (quantity)

Turkey: Major Wheat flour market of Turkey					
Partner Country	Quantity			% Share	Quantity
	MY2012	MY2013	MY2014	MY2014	MY2015*
Iraq	910,674	1,039,084	1,017,660	45%	838,951
Syria	73,104	275,229	226,237	10%	180,408
Sudan	57,616	51,723	219,609	10%	318,073
Angola	61,215	104,725	130,671	6%	120,655
TOTAL	1,864,956	2,357,862	2,248,537	100%	2,070,891

*June 2015-January 2016, Note not all export markets are listed in table above.

After flour, pasta is important industry in Turkey's wheat products sector. Pasta exporters have been expanding their markets in Africa with the help of new amendment in 2015 to the IPR. The amendment allows imports of milling wheat up to 30 percent if producers blend milling wheat and durum wheat in

order to produce pasta. They then must export this pasta to Africa (they can only sell 100% durum wheat pasta in Turkey).

Table 20: Quantity of pasta exportation Turkey

MONTH	MY 2013 (MT)	MY 2014 (MT)	MY 2015 (MT)
June	55,660	56,506	60,926
July	63,469	55,166	53,323
August	47,746	52,103	48,948
September	57,218	58,205	49,040
October	51,498	48,037	57,557
November	63,075	44,892	59,542
December	61,137	53,931	69,504
January	72,104	47,285	54,684
Sub, Total Jun-Jan	471,907	416,125	453,524
February	61,064	44,657	
March	60,939	50,188	
April	70,424	51,373	
May	62,120	51,489	
MY TOTAL	673,492	613,832	675,000*

*forecast

In MY 2015/16, Benin (55,000 MT), Angola (62,000), Syria (180,000MT) and Angola (120,000MT) are the main consumers of Turkish wheat flour.

Table 21: Quantity of pasta exported in MY 2012, 2013 and 2014

	MY 2012	MY 2013	MY 2014	MY2015*
Benin	72,059	102,489	71,914	55,050
Angola	78,312	77,900	70,133	61,865
Syria	14,193	34,087	40,950	14,550
Togo	26,679	39,221	36,082	31,759
Iraq	7,839	8,458	30,505	22,735
Others	347,319	411,337	364,248	
Total	546,401	673,492	613,832	453,524

*June 2015-January 2016

Turkish pasta export increased to 613,832 MT in MY 2014/15, due to domestic consumption and exports. Turkey is forecast to export 675,000 MT of pasta in MY 2015/16. Semolina exports followed the same pattern as pasta exports in MY 2015/16.

Table 22: Total pasta foreign trade

Turkey: Pasta Foreign Trade Data				
YEAR	IMPORTS (\$1000)	IMPORTS (MT)	EXPORTS (\$1000)	EXPORTS (MT)
MY2012	2,586	1,360	392,310	546,401
MY2013	3,285	1,644	476,870	672,492
MY2014	3,365	2,028	420,354	613,832
MY2015	1,680	1,266	365,964	453,524

**June 2015-January 2016*

Barley

TMO procured 473,000 MT of Barley at 645 TL/MT (\$177/MT) in MT2015/16. TMO opened 500,000 MT of barley stocks to sell at 670-745 TL/MT. Contrary to previous years, there was not a shortage and prices were very stable after an ample harvest in MY2015/16. Post revised the barley import estimation at 25,000 tons in MY 2015/16 due to TMO's strong sales after a record harvest. Wheat straw and hay was also sufficient compared to last year.

For MY 2016/17, barley imports into Turkey are forecast at 200,000 tons due to insufficient domestic supply and strong demand from feed sector.

TMO also opened 100,000 MT of barley stocks to cattle producers, broiler producers, and feed millers at \$158-168 /MT in scope of IPR in February 2016.

Table 23: Turkey Barley Trade

TURKEY: BARLEY FOREIGN TRADE				
MONTH	IMPORT MY2014/15	IMPORT MY2015/16	EXPORT MY2014/15	EXPORT MY2015/16
June	1,768	1	0	
July	57,705		0	
August	144,363		0	
September	148,456		5,020	27
October	165,334	63	96	25
November	45,174	42	2,543	25
December	15,004	5,500	1,573	50
January	2,454		7	
Sub, Total June-Jan	580,258	5,606	9,239	127
February	111,937		0	
March	66,723		0	
April	6,071		0	

May	6,307		0	
MY TOTAL	771,296	25,000*	9,239	1000*

* Forecast

Black Sea counties were the largest supplier of barley to Turkey with the help of low freights. Ukraine (394,000 MMT), Russia (188,000 MT) and Romania (70,500) were the largest barley supplier of Turkey in MY2014/15.

Table 24: Turkey Barley Imports by Origin

Turkey: Barley Imports			
Countries	MY 2012/13	MY 2013/14	MY2014/15
Ukraine	23,686	10,610	394,255
Russia	32,783	42,520	187,775
Romania	0	66	70,863
Others	218,852	74,342	189,265
Total	275,321	127,472	771,295

Table 25: Total barley foreign trade

Turkey: Barley Foreign Trade Data				
YEAR	IMPORTS (,000\$)	IMPORTS (MT)	EXPORTS(,000\$)	EXPORTS (MT)
MY2012/13	92,316	275,321	17	39
MY2013/14	38,867	127,472	1,704	4,875
MY2014/15	181,642	771,295	4,764	9,235
MY2015/16*	39	5,606	52	127

*June 2015-January 2016

There is not any serious demand for barley from Turkey in MY2015/16 due to TMO's strong sales. Only 5,500 MT were exported in MY2015/16, and the destination was Denmark.

The Polatli CME is one of the main commodity market exchanges for barley in Turkey. Due to higher production levels compared to MY 2014/15, the barley price decreased by five percent in MY 2015/16. Barley price on the Polatli CME is 713 TL/MT (US\$ 245/MT) in March, 2016 which was 750 TL/MT a year ago.

Corn

For MY 2016/17, corn imports into Turkey are forecast at 1.5 MMT due to insufficient domestic supply and strong demand from the feed and starch sector.

Post revised the corn import estimation at 400,000 tons in MY 2015/16 due to TMO's strong sales under the IPR after a record harvest and export interruption of poultry sector during the summer. Turkey

imported just 126,000 MT of corn in MY 2015/16 during period from September to January which was more than 700,000 MT at the same period in MY 2014/15.

Transshipments were very active in MY2014/15. According to market sources, 600,000 MT of corn were transferred to neighboring countries from bonded warehouses in Mersin and Iskenderun. Despite a slowdown, transshipments will continue from bonded warehouses to the region MY2015/16.

TMO was very active in corn market after a record harvest in MY 2015/16. TMO announced the corn domestic procurement price at 725 TL/Ton (\$250) which was very high compared to the world price. TMO procured about 1.7 MMT of corn, which is about 25 percent of total production of Turkey, in MY 2015/16. Because of this, TMO has been dominating the market with its huge stocks.

The GOT applies 130 percent tariff on corn to protect the domestic market. In a normal season, the private sector needs to import more than 1 MMT of corn in order to produce starch and feed. The Inward Processing Regime (IPR) allows them to import corn with zero tariffs. Except imports in scope of free trade agreements or governmental procurements, all imports have done under the IPR by the exporters who use corn as a raw material for their products with the advantage of zero tariffs. But this year since the harvest, TMO has been aggressively trying to sell corn in its stocks for export certificate holders who are starch, feed and poultry exporters under Inward Processing Regime (IPR). Thus far, TMO managed to sell about 500,000 MT of corn at around \$160 per ton to the export certificate holders in the scope of the IPR. According to market sources demand for TMO's corn is less than TMO's expectations due to a decrease of the export certificate holders.

Domestic consumption of corn will be dependent of the usage in the feed industries and mostly in poultry. Post revises corn consumption in MY 2015/16 is expected to remain about 6.550 MMT due to a decrease in feed and residual usage due to export interruption of broiler and egg laying sector in summer 2015. Due to high customs duty, corn imports are directly related to poultry exports. Exporters can imports corn with zero tariffs under IPR. Despite decreasing exports, growing domestic demand for broiler sector helped to remain total production of the sector. Mentioned export interruption affected usage for corn in the ratios adversely.

Table 26: Corn foreign trade of Turkey

MONTH	IMPORT MY2014	IMPORT MY2015/16	EXPORT MY2014	EXPORT MY2015
September	40,250	0	421	18,953
October	89,513	0	1,493	18,253
November	68,014	10,850	2,985	4,911
December	270,173	49,226	10,664	2,875

January	237,440	66,625	9,789	4,899
Sub Total Sep-Jan	705,390	126,701	25,352	49,891
February	214,964		5,101	
March	324,964		6,128	
April	229,502		1,634	
May	180,830		1,688	
June	128,040		1,495	
July	64,910		1,396	
August	46,278		3,587	
MY TOTAL	1,894,879	400,000*	46,382	100,000*

*Forecast

Russia (1 MMT), Romania (286,000 MT) and Bosnia (73,500) were the largest corn supplier of Turkey in MY2014/15. With the help of strong demand of poultry and egg sector, Turkey imported nearly 2 MMT of corn previous year. As of January, Turkey imported 126,000 MT of corn in MY 2015/16. Russia is still largest supplier with the advantage of low freight cost.

Table 27: Turkey Corn Imports

Turkey: Corn Imports, Year Ending: August			
Partner Country	Quantity		
	MY2013/14	MY2014/15	MY2015/16*
Russia	829,912	1,059,158	74,146
Romania	152,558	286,311	39,576
Bosnia & Herzegovina	15,887	73,598	3,035
US	142	5,065	
Total	1,226,685	1,894,878	126,701

*September 2015-January 2016

Table 28: Turkey Corn Exports

Turkey: Corn Exports, Year Ending: August			
Partner Country	Quantity		
	MY2012/13	MY2013/14	MY2014/15
United States	4,490	16,596	22,969
Italy	3,710	22,196	5,333
Iraq	1,224	5,393	3,568

Germany	54	1,781	2,576
Spain	865	115,071	974
Total	15,955	252,795	46,382

In MY2015/16, corn trade is increasing compared to last year, and majority of exports are going to Iraq. From September 2015 to January 2016, of 50,000 MT of corn exported, 41,000 MT of it went to Iraq.

Table 29: Total Corn Foreign Trade

Turkey: Corn Foreign Trade Data				
YEAR	IMPORTS (\$1000)	IMPORTS (MT)	EXPORTS (\$1000)	EXPORTS (MT)
MY2013	312,245	1,226,685	116,202	252,795
MY2014	428,720	1,894,879	52,315	46,382
MY2015*	27,848	126,701	23,062	49,890

*September 2015-January 2016

The Adana CME is the main commodity market exchange for corn in Turkey. Due to higher production levels compared to MY 2014/15, the corn price decreased in MY 2015/16. Corn price on the Adana CME is 699 TL/MT (US\$ 241/MT) in March, 2016 which was 720 TL/MT a year ago.

Rice

For MY 2016/17, rice imports into Turkey are forecast at 300,000 tons, milled equivalent. This is up 50% from 2015/16 on the basis of 200,000, due to insufficient domestic supply and possible regional transshipments.

So far in MY 2015/16, rice imports have been very slow and are now forecast at 200,000, down 117,000 tons from the official USDA estimate. The industry has struggled with several problems recently. First is the low domestic price, which is supported by the government, compared to world price. The GOT plays a direct role in determining price with announcing procurement price for paddy rice, selling rice in retail store. High level of domestic production and the speedy devaluation of the Turkish lira, which dropped 21 percent in 2015, have affected rice importers. After devaluation of the Turkish lira compared to the dollar, U.S. prices are not attractive for Turkish importers. Poor demand in the retail and food service sector is also another reason.

In March 2016, the paddy rice price was 2,400 TL/MT (827 USD/MT) at the Mersin CME. Last year, at the Mersin CME, the local rice price was 2,900 TL/MT (1,100 USD/MT) in April 2015.

The sector is satisfied the decision of government that value added tax on rice abated from eight percent to one percent in 2015, which prevents illegal unregistered domestic trading and unfair competition between millers. Also a new tax system contributed to decreased retail prices. But decreasing price did not increase demand due to reasons mentioned above in the consumption section.

Most of the paddy rice (rice in the husk) imports are done under an inward process regime for export purposes. Paddy millers are concentrated in the Mersin region where they are closer to Middle Eastern

countries. Compared to previous years, exports to Middle Eastern countries are very low. Turmoil in neighbor countries and ongoing political issues with some countries in the region affected negatively Turkish exports.

Table 30: Rice import; classified by process

Rice import; classified by process								
Country	MY 2014/15				MY 2015/16*			
	Rice in the Husk	Husked rice (Brown)	Semi-Wholly milled rice	Broken rice	Rice in the Husk	Husked rice (Brown)	Semi-Wholly milled rice	Broken rice
U.S	100,852	0	1,224	0	41,554	0	30	0
Russia	106,483	0	0	0	9,653	0	0	0
India	0	0	61,233	416	0	0	7,881	0
Thailand	0	0	4,547	0	0	0	0	0
Brazil					12,577			
Pakistan	0	0	5,104	0	0	0	0	0
Greece	3,100	0	15,333	0	0	0	3,537	0
Italy	0	0	33,829	0	0	0	10,234	0
Bulgaria	11,852	2,801	0	0	4,794	1,013	0	0
Others	28,658	60	17,671	0	8,176	0	4,700	0
Total	250,945	2,861	138,941	416	76,754	1,013	26,382	0

*September 2015-January 2016

Although the U.S. has been the biggest supplier for several years, Calrose rice, which is favored by Turkish consumers, has become very expensive due to the recent devaluation in the Turkish Lira. The CIF price of Calrose variety rice is \$865/MT, and has a 45-percent tariff. Jupiter variety rice is a U.S.-origin alternative, but importers are still concerned about the risk of possible rejection from genetically engineered products (of corn or soy dust of GE traits not approved for use in Turkey, which even at unavoidable low levels can cause the shipment to be rejected). Another issue which has impacted imports of United States rice in the past and remains a concern for importers is the white tip nematode on Turkey's pest list. Though this pest is endemic in Turkey, GOT rejects consignments where this pest is present, and they are not allowing mitigation methods.

Millers want to import paddy rice from the United States, but sales are slowing now because of high prices. Brazil is a new supplier for the Turkish Market with Russia in the new marketing year. Post estimates MY 2014/15 imports at 317,000 MT and MY 2015/16 imports are forecasted at 200,000 MT. Actual imports will depend on export demand.

Table 31: Turkish Milled Rice Foreign Trade (hs: 1006)

TURKEY: RICE FOREIGN TRADE*				
MONTH	IMPORT MY2014/15	IMPORT MY2015/16	EXPORT MY2014/15	EXPORT MY2015/16

	(MT)	(MT)	(MT)	(MT)
September	16,181	23,731	655	1,905
October	17,391	11,273	941	1,885
November	27,701	9,301	960	1,759
December	62,765	17,411	4,444	1,836
January	28,990	19,287	1,956	714
<i>Sub, Total Sep-Jan</i>	<i>153,028</i>	<i>81,002</i>	<i>8,956</i>	<i>8,098</i>
February	56,975	0	2,064	0
March	27,625	0	1,952	0
April	19,500	0	1,058	0
May	20,529	0	2,597	0
June	17,704	0	2,869	0
July	13,825	0	3,135	0
August	8,328	0	4,544	0
MY TOTAL	316,981	200,000**	27,176	25,000**

* Statistics are converted to milled equivalent using the factor of 0.7 for paddy rice (100610) and 0.88 for brown rice (100620)

** Forecast

India, Italy and Greece were the main milled rice suppliers with 61,000 MT, 34,000 MT, 7,000 MT respectively in MY2014/15, and continue to be the main rice suppliers for Turkey in MY2015/16. According to traders, the cost of the commodity is more important than the quality. The quality of imported rice differs dramatically according to origin. In recent years, Turkish farmers have been leasing rice fields in Bulgaria. Turkey imported 5,000 MT of paddy rice from Bulgaria from September 2015 to January 2016.

Iraq, Syria and Jordan are the most important markets for Turkish rice millers. Exports to Iraq reached 5,620 MT in MY 2014/15 and 1,259 MT in MY 2015/16 (September-January) Due to turmoil, exports to Syria slowed and exporters are now having difficulty transporting their contracted sales to Syria. Rice exports in MY 2014/15 were 27,000 MT and are forecasted at 25,000 MT in MY 2015/16.

Table 32: Turkish Milled Rice Foreign Trade (hs: 1006)

Major Suppliers of Turkey*				
	MY2012/13	MY2013/14	MY2014/15	MY2015/16**
Russia	49,219	27,936	74,538	6,757
United States	64,482	132,961	71,820	29,088
India	20,596	66,800	61,240	7,881
Italy	41,237	24,692	33,829	10,234
Greece	6,285	4,331	17,503	7,881
Other	53,319	86,679	58,051	19,161
Total	235,138	343,399	316,981	81,002

* Statistics are converted to milled equivalent using the factor of 0.7 for paddy rice (100610) and 0.88 for brown rice (100620)

** September 2015-January 2016

An inward processing regime applies to the paddy rice sector, similar to one used in the wheat sector. Rice exporters gain import certificates, which allow them to import paddy rice with zero tariff in order to produce rice for exports. The main target is to allow Turkey to become the rice miller for the region. They import paddy rice mainly from the United States, mill it, and export it to the Middle East and North African countries. According to market sources, 25 percent of the paddy rice imports are done under an inward process regime for export purposes. Also transshipments to Middle East and North African countries are about 20,000 MT. Transshipments typically go through Mersin region and bonded warehouses in Mersin, as well as Iskenderun Port. Mersin is also a hub for humanitarian aid going to the Middle East. As a side note, Turkish media has reported some smuggling events at the Iraq border.

Table 33: Turkey: Rice Exports (MT)

Turkey: Rice Exports(MT)				
Countries	MY 2012/13	MY 2013/14	MY 2014/15	MY 2015/16*
Iraq	1,605	2,991	6,731	1,259
Syria	4,013	4,985	3,584	1,626
Jordan	0	0	5,620	552
FTZ-Mersin	248	1,290	2,531	700
Lebanon	68	3,575	1,801	1,550
Total	32,196	17,826	27,176	8,098

*September 2015-January 2016

Stocks

Wheat

In 2016/17, wheat stocks are forecast to decline to 1.22 MMT, down 50 percent from the prior year due to decreasing production expected in the upcoming harvest.

TMO was very active in the wheat market after a record harvest in MY2015/16. After TMO procured about 3.3 MMT of wheat, TMO started to sell wheat held in stocks to import certificate holders who are flour, pasta, biscuits (cookies) exporters under IPR. TMO sold more than 2 MMT of wheat under IPR to the exporters in MY2015/16. Despite competitive price, some millers were complaining about the quality of wheat they purchased from TMO. There were some quality problems in TMO's stocks in Thrace region. TMO still has more than 3 MMT of wheat in stocks and plans to sell half of it before the new harvest.

As for barley, TMO and the private sector have approximately 900,000 MT of stocks of barley as they enter new harvest. In 2016/17, barley stocks are forecast to decline to 546,000 MT, due to decreasing production expected in the upcoming harvest.

Corn

In 2016/17, stocks are forecast to decline to 370,000 tons, down 25% from the prior year due to presuming decreasing production for next marketing year.

TMO was very active in the corn market after a record harvest. TMO procured about 1.7 MMT of corn at \$250, which was about 25 percent of total production of Turkey in MY 2015/16. Since then, TMO has been dominating the market with its huge stocks. Thus far, from the harvest, TMO managed to sell about 500,000 MT of corn at \$160 to the export certificate holders in scope of IPR. It's expected that TMO will sell a considerable part of its more than 1 MMT of stocks to the export certificate holders before the new harvest arrives.

Rice

In 2016/17, stocks are forecast to at 122,000 tons, similar with the prior year. Even processors and importers have hesitated to keep positions due to risk of currency. Trade is slow and stocks are low compared to previous years.

Farmers are very dissatisfied with rice prices. Farmers kept paddy rice for a long time at their storage houses in order to increase the price. TMO announced the procurement price at 1.580 TL/MT for Osmancik and 1.975 TL/MT for Calrose variety for 60 milling rate of paddy rice.

TMO procured about 3,000 MT of paddy rice in MY 2015/16. TMO sells Osmancik rice variety at 2.9 TL/kg and Baldo variety at 4 TL/Kg in its retail stores. As of March 2016, bulk price of Osmancik rice variety is about 2,300-2,500 TL/Ton in domestic market which is 20 percent lower than last year. High levels of stocks from previous seasons finally melted in 2014 and are low at the moment.

Policy

Turkey experienced two general elections in 2015, after the first election didn't yield a clear majority to form a government. In normal years, a governmental budget is passed in December. Because of the political interruption though, the new budget which cover agricultural supports, was announced in March 2016.

Mr. Faruk Celik was assigned as the New Minister of Food, Agriculture, and Livestock as part of the new cabinet in November. The former minister was in his position for more than 10 years. Since his appointment, the new Minister has regularly organized brainstorm meetings with stakeholders in many different regions of Turkey. According to his speeches in media, he promised a new approach and policies in order to solve issues from farm to fork. New support for the livestock sector, a price ceiling for red meat, milk powder procurement, field consolidations (to solve Turkey's fragmented agriculture field problem) are some of the topics which MinFAL plans to address with new policies in the short run. As is common practice, he has been replacing many government officials in MinFAL, resulting in a large turnover of staff.

The most radical plan proposed related to the feed and grain sector is to reduce TMO's intervention and storage capacity. The Turkish Prime Minister, Ahmet Davutoğlu, gave some hints regarding TMO's envisaged new role at a signing ceremony for a cooperation deal between Borsa Istanbul – Turkey's

main stock exchange – and the Konya Commodity Exchange on wheat future contracts on February 25, 2016. He has vowed that Turkey will soon launch a specialized commodity exchange, adding that the warehousing responsibilities of Turkey’s Grain Office (TMO) would be transferred to the private sector gradually and the office would play a watchdog role in regulating prices. In line with the deal between Borsa Istanbul and the Konya Commodity Exchange, Turkey is expected to offer local and international investors the opportunity to trade wheat future contracts with physical delivery, similar to developed countries with advanced capital and commodity markets. The deal covers the liquidity of physically delivered future contracts with grains, especially wheat.

The GOT has supported construction of some licensed warehouses since 2005. Turkey started the receipt warehouse system, which has existed in developed countries for a long time, after 2011 with the Lidas, which is a joint venture of TMO and The Union of Chambers and Commodity Exchanges (TOBB). Capacity of Lidas is 90,000 MT. Total storage capacity of the licensed warehouse system, along with the private sector, is currently 415,000 MT. It is expected to be 900,000 MMT by the end of the year with ongoing new investments. The largest capacity licensed warehouse is in Konya, with a capacity of 225,000 MT. The GOT is working on a well-functioning Licensed Warehousing, Warehouse Receipts System (WHR) transactions for delivery on agricultural products and futures markets in Turkey in Turkey with the help of Commodity exchange.

Since March 2, 2010 a new agricultural support system based on agricultural production zones was published in the official gazette. Thirty agricultural production zones were determined by the Ministry of Agriculture according to different parameters such as climate, soil, etc. Since MY 2010, the Ministry of Agriculture and Rural Affairs has used agricultural production zones for grain support payments. Crops will only be given government support payments if they are determined to be suitable for a particular zone. According to the new budget, the GOT plans to provide support of 11.6 billion TL to farmers.

According to Union of Turkish Chambers of Agriculture, losses of agricultural product in Turkey are dramatically high. Turkey lost about 7.8 percent of total grain products during the harvest or consuming period. For instance, there was 1.8 MMT of waste wheat in MY 2013/14.

Market access problems as result of Turkey’s 2010 biosafety law continue, which does not allow imports of commodities with genetically engineered varieties (events), including at an unavoidable low level presence, that have not been approved for use in Turkey. See FAS GAIN reports on Biotechnology for further information and detail on this policy issue.

Table 34: Grain support system Turkey: Grain Support System

Grain support system Turkey: Grain Support System (TL/ha)			
Types of Support	2013	2014	2015
Diesel Support	43	4.6	48.5
Chemical Fertilizer Support	55	60	66
Soil Analysis support	25	25	25

Despite the fact that production premiums have been the same during the last six years, there has been nearly 50 percent devaluation of Turkish Lira against the dollar during the same period.

Table 35: Grain Premiums Turkey: Grain Premiums (TL/MT)

Grain Premiums Turkey: Grain Premiums (TL/MT)						
Products	2011	2012	2013	2014	2015	
Wheat	50	50	50	50	50	
Barley, Oats, Rye	50	50	50	50	50	
Paddy Rice	100	100	100	100	100	
Chick Peas, Lentils, Dry beans	100	100	100	100	200	
Corn	40	40	40	40	40	

The feed and livestock industries are concerned about high feed prices. Turkey's livestock sector has had a lot of new investment, including the import of live animals, which has increased the importance of access to forage crops. There is very limited pasture development and forage crop planting. The feed industry is dependent on soybean imports, corn by-products imports and bran from oilseed mills, wheat mills, and the cotton ginning industry.

Table 36: Turkey Forage Crop Supports

Forage crop supports (TL/ha)						
Products	2011	2012	2013	2014	2015	
Alfalfa (irrigated)	1300	1300	500	500	500	
Trefoil	900	900	400	400	400	
Silage corn	550	550	750	750	750	

Table 37: Grain Tariff Rate

Turkey: Grain Tariff rate						
Product group	Products	EU	Bosnia Herzeg.	S. Korea	Others incl US	Notes
Wheat	Spelt, common wheat and meslin (excl. seed)	130	0	130	130	200 USD CIF reference price
	Durum Wheat	130	0	130	130	300 USD CIF reference price
	Common wheat, Durum wheat and meslin seed	0	0	0	0	-
Barley	Barley Seed	0	0	0	0	
	White Barley (excluding seed)	130	0		130	
	Malting Barley (excluding seed)	130	0	130	130	
Corn	Maize Seed	0	0	0	0	
	Popcorn, Unpopped, (excluding seed)	130	0	130	130	
	Other Corn	130	0		130	270 USD CIF reference price
Rice	Rice in husk for sowing	13	0	15	115	
	Round, medium, long grain rice in husk	34	0	34	34	
	Round, medium, long husked rice	36	0	36	36	
	Semi milled, wholly milled, broken rice	45	0	45	45	

Production, Supply and Demand Data Statistics

Wheat Market Begin Year	2014/2015		2015/2016		2016/2017	
	June 2014		June 2015		June 2016	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	7,710	7,710	7,860	7,860	0	7,815
Beginning Stocks	2,889	2,889	2,524	2,524	0	2,524
Production	15,250	15,250	19,500	19,500	0	17,500
MY Imports	5,947	5,947	3,800	3,500	0	4,000
TY Imports	5,960	5,960	3,800	3,500	0	4,000
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	24,086	24,086	25,824	25,524	0	24,024
MY Exports	4,062	4,062	4,700	5,000	0	5,000
TY Exports	4,136	4,136	4,700	5,000	0	5,000
Feed and Residual	700	700	1,200	1200	0	1,000

FSI Consumption	16,800	16,800	16,800	16,800	0	16,800
Total Consumption	17,500	17,500	18,000	18,000	0	17,800
Ending Stocks	2,524	2,524	3,124	2,524	0	1,224
Total Distribution	24,086	24,086	25,824	25,524	0	24,024

(1000 HA) ,(1000 MT)

Barley Market Begin Year	2014/2015		2015/2016		2016/2017	
	June 2014		June 2015		June 2016	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	3,400	3,400	3,400	3,400	0	3,400
Beginning Stocks	899	899	332	332	0	856
Production	4,000	4,000	7,400	7,400	0	5,400
MY Imports	792	792	100	25	0	200
TY Imports	332	332	50	25	0	200
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	5,691	5,691	7,832	7,757	0	6,456
MY Exports	9	9	25	1	0	10
TY Exports	10	10	25	1	0	10
Feed and Residual	4,500	4,500	6,000	6,000	0	5,000
FSI Consumption	850	850	900	900	0	900
Total Consumption	5,350	5,350	6,900	6,900	0	5,900
Ending Stocks	332	332	907	856	0	546
Total Distribution	5,691	5,691	7,832	7,757	0	6,456

(1000 HA) ,(1000 MT)

Corn Market Begin Year	2014/2015		2015/2016		2016/2017	
	Sep 2014		Sep 2015		Sep 2016	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	550	550	620	620	0	570
Beginning Stocks	642	642	570	570	0	520
Production	4,800	4,800	6,100	6,200	0	5,500
MY Imports	2,224	2,224	1,200	400	0	1,500
TY Imports	2,238	2,238	1,200	400	0	1,500
TY Imp. from U.S.	13	13	0	0	0	0
Total Supply	7,666	7,666	7,870	7,170	0	7,520
MY Exports	46	46	200	100	0	100
TY Exports	66	66	200	100	0	100
Feed and Residual	6,000	6,000	5,800	5,500	0	6,000
FSI Consumption	1,050	1,050	1,050	1,050	0	1,050
Total Consumption	7,050	7,050	6,850	6,550	0	7,050

Ending Stocks	570	570	820	520	0	370
Total Distribution	7,666	7,666	7,870	7,170	0	7,520
(1000 HA) ,(1000 MT)						

Rice, Milled Market Begin Year	2014/2015		2015/2016		2016/2017	
	Sep 2014		Sep 2015		Sep 2016	
Turkey	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	95	95	98	98	0	96
Beginning Stocks	245	245	217	217	0	122
Milled Production	460	460	500	500	0	490
Rough Production	687	687	746	746	0	731
Milling Rate (.9999)	6,700	6,700	6,700	6,700	0	6,700
MY Imports	317	317	330	200	0	300
TY Imports	270	270	330	200	0	300
TY Imp. from U.S.	133	133	0	0	0	0
Total Supply	1,022	1,022	1,047	917	0	912
MY Exports	25	25	50	25	0	30
TY Exports	28	28	50	28	0	30
Consumption and Residual	780	780	782	770	0	760
Ending Stocks	217	217	215	122	0	122
Total Distribution	1,022	1,022	1,047	917	0	912
(1000 HA) ,(1000 MT)						