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Turkey

Grain and Feed Annual

Grain and Feed Annual 2018

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Report Highlights:

Turkey's wheat production for marketing year (MY) 2018/19 is forecast at 19.3 MMT, which is slightly lower compared to the previous year due to decreased planting area. Barley production forecast is up seven percent for MY 2018/19 to 6.75 MMT, while corn planting area is expected to decrease about five percent to 530,000 hectares and production to 5.1 MMT. In an effort to tackle food price inflation, the Turkish Government reduced the import tariffs on several commodities in 2017. The GOT plans to grant 14.8 billion TL (\$3.89 billion) in agricultural subsidies to agricultural producers in 2018 and many new licensed warehouse systems for grain storage are being established.

Turkey Grain and Feed Annual Report 2018

EXECUTIVE SUMMARY

Wheat production for marketing year (MY) 2018/19 is forecast at 19.3 MMT, which is slightly lower compared to the previous year due to decreased planting area, assuming sufficient rain and favorable conditions from April to June. Post revised the wheat consumption forecast down to 17.6 MMT in MY 2017/18 due to decreasing feed wheat usage.

Russia continues to be the prominent supplier of wheat for Turkey's flour and pasta sector in 2017/18, despite last year's political issues. For MY 2017/18, wheat exports (including wheat products, such as flour) from Turkey are expected to be 6.3 MMT, due to sales into neighboring countries and growth in exports to African countries in the first seven months of the marketing year. However, wheat flour exports have been slowing down in recent months. For MY 2018/19, total wheat exports from Turkey, including wheat products, are forecast at 6 MMT, down 300,000 MT from MY 2017/18, due to ongoing issues with prominent markets, such as Iraq, which complicate trade.

Barley production for MY 2018/19 is forecast at 6.75 MMT, up seven percent compared to the previous year, due to increasing planted area. High barley prices in the domestic market led to many farmers planting barley instead of wheat.

In MY 2018/19, Turkish corn planting area is forecast to decrease about five percent to 530,000 hectares and production to 5.1 MMT. The total planting decrease is projected at about 20,000 ha in MY 2018/19. Good returns on alternative crops, especially cotton, are the reason for the decreased corn planting.

Compound feed production in Turkey increased to 22.4 MMT in 2017, up 10 percent compared to last year. Imports of residues and byproducts from food industries such as bran and meals to Turkey reached at 6.6 MMT in 2017, up 33 percent compared to last year.

The Government of Turkey (GOT) plans to grant 14.8 billion TL (\$3.89 billion) in agricultural subsidies to all agricultural producers, including livestock farmers, in 2018 as part of their new agricultural budget. This is up 15 percent compared to 2017, in terms of Turkish Lira. The GOT granted 12.8 billion TL (\$3.55 billion) in agricultural subsidies to producers in 2017.

Within the scope of a set of measures to fight rising food inflation in Turkey, the Turkish government reduced the import tariff on several commodities such as wheat, corn, barley, rice, pulses, bran and meals in 2017.

New licensed warehouse systems for grain storage are developing in Turkey. The GOT has supported construction and operations of licensed warehouses. As of February 2017, there are 40 active licensed warehouse operations (LWO) with a capacity of 1.8 MMT. There were only 19 LWO last year. According to the Turkish Grain Board (TMO), TMO procured 240,000 MT of wheat and 95,000 MT of corn with electronic warehouse receipts in MY 2017/18 and plans to procure grain only through licensed warehouses in MY 2018/19. Also, TMO did not sell any products to exporters within the scope of Inward Processing Regime in 2017/18.

PRODUCTION

Wheat

Wheat production for marketing year (MY) 2018/19 is forecast at 19.3 MMT, which is slightly lower compared to the previous year due to decreased planting area, assuming sufficient rain and favorable conditions from April to June. Wheat planting area has decreased compared to last year. Good returns, mainly on barley and other crops, are impacting farmers’ planting decision.

Last year, Turkey experienced one of the driest seasons for planting in 2017/18. Mid-season precipitation improved though and the situation ended with very favorable conditions which resulted in an abundant crop. Although the current season also started with drought concerns, the average winter rainfall in Turkey from October 2017 through February 2018 was much better than the previous year.

Average rainfall in Turkey from October 2017 through February 2018 was 292.6 millimeters (mm). During the same period the previous year, rainfall was 229.6 mm. Although this year’s rainfall amount is 9 percent lower than the national historical average, it is 28 percent higher than last year. February and March saw fairly heavy rainfall throughout most of the country. Dormant crops rely on winter precipitation for spring emergence and establishment.

The areas with the greatest increase in rainfall compared to the previous year were the Mediterranean region, followed by the Central Anatolia and East Anatolia regions. As can be seen Table 1, the cumulative rainfall from October to January in the Mediterranean region was 438.5 mm, while the average level for that region is 453.1 mm. This amount of rainfall is 3 percent lower than the national historical average for Mediterranean region, and it is 45 percent higher than last year.

Table 1: Cumulative Rainfall in Turkey

Turkey: Recent Rainfall Levels				
Region	Oct 2016- Feb 2017 (mm)	Oct 2017- Feb 2018 (mm)	Normal (mm)	2017/18 deviation from normal
Thrace	347.4	409.6	394.0	4 %
Aegean	260.1	326.6	378.8	-14 %
Mediterranean	302.7	438.5	453.1	-3 %
Central Anatolia	120.2	173.5	198.9	-13 %
Black Sea	286.6	314.9	342.5	-8 %
East Anatolia	180.1	239.1	279.0	-14 %
Southeast Anatolia	223.8	266.0	342.0	-22 %
Turkey Total	229.6	292.9	322.8	-9 %

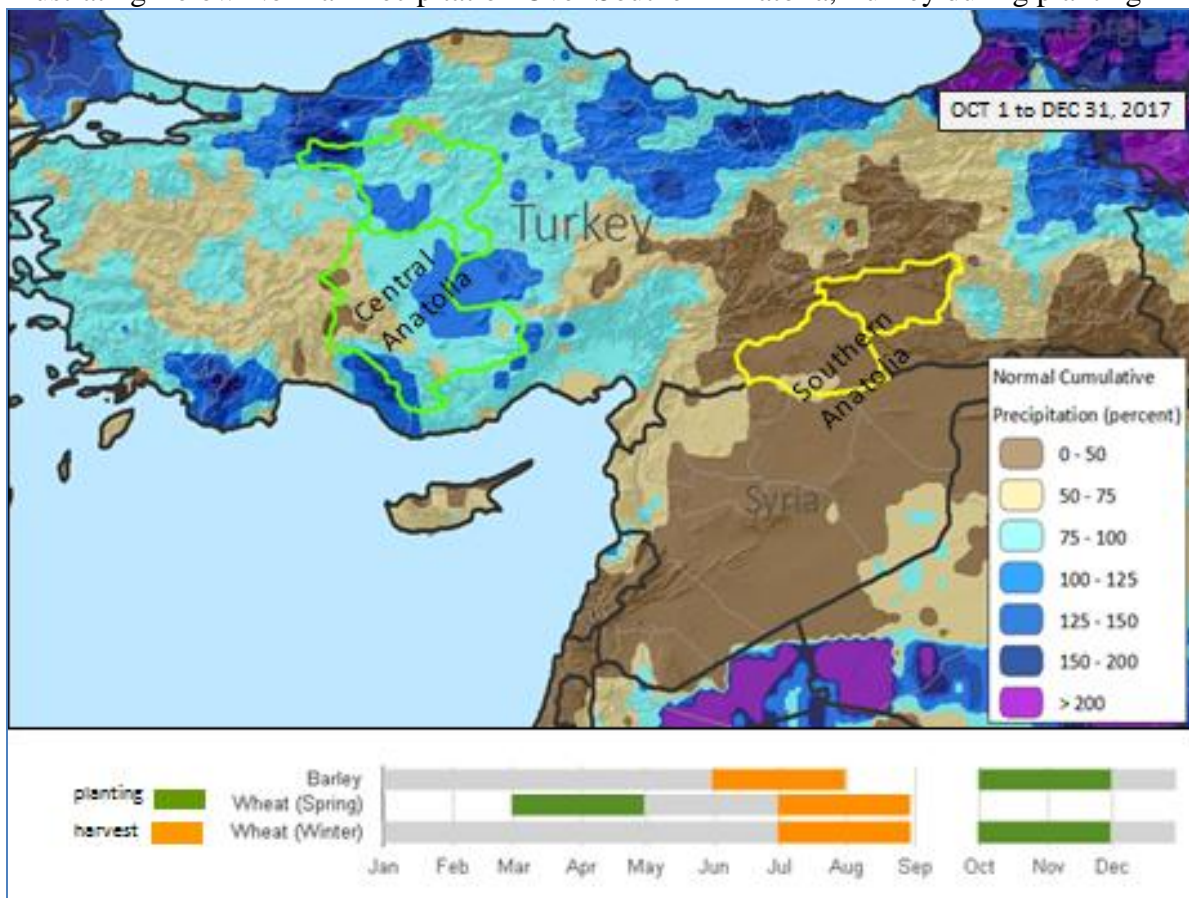
Source: Turkish State Meteorological Service

The cumulative rainfall from October to January in the Central Anatolia region was 173.5 mm, while the average level for that region is 198.9 mm. This amount of rainfall is 13 percent lower than the national historical average for Central Anatolia region, and it is 44 percent higher than last year. Despite adequate winter rains, there was a lack of snow, which negatively impacts growth.

During the planting season, precipitation was near to above average over the majority of the winter grains area, with the exception of the Southern Anatolia region. Dry weather has been reported as a concern for the winter grains crop in Southeastern Turkey, along the Syrian Border. The area of concern

is referred to as Southern Anatolia and typically produces 15 percent of the total winter wheat crop. Precipitation over Southern Anatolia between October 1, 2017 until December 31, 2017 was well below normal (Fig. 1). This was one of the driest seasons for planting in recent years.

Figure 1: Percent Normal Cumulative Precipitation,
 Illustrating Below Normal Precipitation Over Southern Anatolia, Turkey during planting



Source: USDA FAS

Last year the crop in the Central Anatolia region was beset with drought at planting. Mid-season precipitation improved the situation and led to very favorable conditions which resulted in an abundant crop. Thus, this year's crop in the Southern Anatolia region still has time to recover and end up with good yields.

Planting of the 2017/18 winter barley and wheat crops started in mid-September and concluded in early December. Dry weather in October and November 2017 in some regions of Central Anatolia and Southeast Anatolia caused a small amount of damage to the crop, forcing a few farmers to have to re-plant wheat.

MY 2018/19 wheat planting is forecast to decrease slightly to 7,615,000 ha. Winter wheat planting, which finished in October 2017, was nearly 200,000 ha below the previous year, mainly due to competition with barley in unirrigated areas, and other products differing by region.

Although it is still early to reliably forecast MY 2018/19 wheat production, the wheat production estimate is 19.3 MMT, assuming sufficient rain and favorable conditions from April to June.

Central Anatolia is the main grain production region of Turkey. So far in MY 2018/19, rainfall in the region is below normal levels. Total wheat area in Central Anatolia is 2,835,000 ha and the average yield is about two MT/ha. Nearly half of the fields are unirrigated and yields are directly linked to rainfall. A considerable number of farmers in the region switched from wheat to barley in unirrigated areas, due to high barley prices during the planting period. Barley also gained some land from wheat in Kirsehir, Yozgat and Kiriklale, which are also unirrigated areas, due to good returns last year. Due to good returns on corn, some irrigated areas of Konya Province also switched from wheat to corn production. Of the total 5.5 MMT of wheat projected in Central Anatolia in MY 2018/19, 1.1 MMT is durum wheat.

The **Cukurova region** has 260,000 ha of wheat planted in MY 2018/19, which is same as last year. Soil moisture dramatically improved after January and February rains, benefiting the region's crop. Temperatures have been mild and overall growing conditions are good. So far, wheat development is faster than normal due to high temperatures. In some areas, there was rust and white fly observed in the wheat fields, which will probably negatively impact the quantity. The Cukurova region is expected to produce 1.3 MMT of wheat in MY 2018/19.

In the **Thrace region**, the wheat area will marginally decrease due to crop rotation patterns and better returns on other alternatives like sunflower. So far, plant germination is normal because of good rainfall. The cumulative rainfall from October to January in the Thrace region was 409.6 mm, while the average level for that region is 394.0 mm. This is three percent higher than the national historical average for Thrace region, and it is 18 percent higher than last year. The Thrace region is expected to produce 3.3 MMT of wheat in MY 2018/19.

In MY 2017/18, wheat planted area in **Southeastern Anatolia** decreased one percent, about 3,000 ha, due to good returns on cotton. Especially in Harran, cotton has been gaining area from corn and wheat for the last two years. Kiziltepe and Viransehir are the main areas in Southeastern Anatolia where farmers planted wheat. Farmers complained about competition with imported durum wheat and marketing issues, so some switched from durum wheat to milling wheat in some areas in the region. There will be about 1 MMT of durum wheat production in Southeast Anatolia, down 15 percent compared to last year, assuming sufficient rain and favorable conditions until the harvest in MY 2018/19. Of the total 19.3 MMT of wheat produced in Turkey in MY 2017/18, 2.2 MMT were durum wheat. Alternative crops, orchard development, greenhouse development, sesame seeds, onions, and vegetables increase their share of farm area every year in Turkey, which reduces wheat land.

Table 2: Turkish Wheat Production by Region

Regions	MY 2016	MY 2017	Long term Avg. yield (MT/H A)	Harvest Time	MY 2016/17		MY 2017/18		MY 2018/19	
	Avg. yield (MT/H A)	Avg. yield (MT/H A)			Harvested Area (ha)	Production (MT)	Harvested Area (ha)	Production (MT)	Harvested Area (ha)	Production (MT)

Çukurova region	3.5-4.5	4.5-5	4.5-5.5	May10-June10	260,000	1,175,000	260,000	1,250,000	260,000	1,300,000
Hatay region	3	4.7	5-5.5	May25-June25	86,000	200,000	85,000	225,000	85,000	225,000
Southeast region	2.9	3.3	3-3.5	May15-June25	933,000	2,705,000	927,000	3,150,000	924,000	3,000,000
Central Anatolia	1.7	1.9	1.5-2	June25-July25	2,990,000	5,000,000	2,995,000	5,650,000	2,835,000	5,500,000
Polatlı	2.8-3	3.4	3.3	June15-July20	130,000	300,000	130,000	375,000	130,000	375,000
Aegean region	2-2.5	3	3	May25-June25	500,000	1,700,000	500,000	1,800,000	500,000	1,850,000
Aydin region	4.5	4	4	May20-June10	6,000	50,000	6,000	50,000	6,000	50,000
Thrace	4.8	4.1	4.1	June15-July15	620,000	3,000,000	617,000	3,250,000	615,000	3,300,000
Other regions	1.4	1.6	1.5	June15-July15	2,290,000	3,120,000	2,280,000	3,750,000	2,260,000	3,700,000
Total	2.3	2.5	2.3	May15-July15	7,815,000	17,250,000	7,800,000	19,500,000	7,615,000	19,300,000

Source: USDA Estimates

Post revised the production forecast down to 19.5 MT of wheat in MY 2017/18. The decrease is primarily due to wheat yields in the Central Anatolia region, which were lower than expected in our previous report.

In order to increase the quality of the wheat crop, the Turkish government supports farmers' usage of domestically-produced certified wheat seed. In MY 2018/19, they provided 85 Turkish Lira (TL) per hectare subsidy to help farmers with the costs of more expensive seed. This amount is similar to last year. Certified seed production has increased about three fold in the last ten years due to the Ministry of Food, Agriculture, and Livestock's encouragement. In 2017, Turkey produced more than 550,000 MT of certified wheat seed, compared with 210,000 MT in 2006. However, some farmers who planted wheat in unirrigated areas preferred to use saved seed due to the high price of certified seeds – they can be two or three times more expensive than the price of wheat in some areas.

The Government of Turkey (GOT) continues to support wheat production with production premium programs. According to 2018 production bonus announcements, the wheat premium remained at 50 TL/MT (equivalent to \$13/MT). The GOT is continuing to provide different benefits to farmers under the umbrella of soil analysis, diesel, and fertilizer (Table 3).

Fertilizer prices in Turkey fluctuate in parallel with currency fluctuations. According to the fertilizer industry, farmers in Turkey use a total of about 5.5 MMT of chemical fertilizer in a year, which the industry thinks should be at 8.5 MMT. The organic matter component of soil is about 1.5 percent, which they think should be 3.5 percent. In the last two years, organic-mineral fertilizers have been becoming more popular among the farmers after some restrictions were put in place by the government on the sales of ammonium nitrate based fertilizer.

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

Turkey: Government support for wheat producers					
Year	Certified seed (TL/ha)	Premium (TL/Ton)	Soil analysis (TL/ha)	Diesel (TL/ha)	Fertilizer (TL/ha)
2009	50	45	22.5	29.3	38.3
2010	50	50	25	32.5	42.5
2011	60	50	25	37.5	47.5
2012	60	50	25	40	50
2013	75	50	25	43	55
2014	75	50	25	46	60
2015	85	50	25	48.5	66
2016	85	50	110*		
2017	85	50	8	130	40
2018	85	50	8	150	40

Source: Turkish Official Gazette

* The GOT paid 110 TL for these three categories combined in 2016.

As the governmental authority on the grain market, the Turkish Grain Board (TMO) was an active player in the wheat market in MY 2017/18. TMO announced 2017 grain intervention prices on July 13, 2017. TMO has procured grain in different ways, such as at commodity exchanges and licensed warehouses with its own branches spread across different points in Turkey. They announced the intervention price for Anatolian Hard Red Milling Wheat (AKS) at 940 TL/MT (\$314/MT), and 1000 TL/MT (\$346/MT) for durum wheat. Prices which are given in the table below differed up to 5 percent more, according to quality, which has been the case since 2015. TMO procured about 2 MMT of wheat in MY 2017/18, and in MY 2016/17, they procured 2.6 MMT.

Table 4: TMO Grain procurement between June 2017 and February 2018

TMO Grain procurement from June 2016 to February 2017							
Type of Grain	Durum Wheat	Milling Wheat	Barley	Rye	Oat	Corn	Paddy Rice
Quantity (thousand MT)	685	1,360	-	-	-	205	-

Source: Turkish Official Gazette

The GOT also gives support for fertilizer, gasoline, certified seed usage, and soil analysis – rates are similar with last year, except fuel has increased (Table 3). Considering the depreciation of the Turkish Lira against the U.S. Dollar, intervention prices in terms of value in dollars, of TMO decreased from \$303 last year to \$268 in MY 2017/18 (Table 5).

Table 5: Historic TMO Wheat Intervention Price and Government Premiums

Turkey: TMO milling wheat intervention prices and wheat premiums (TL/MT)		
Year	Intervention price	Premium (Same as Table 3)
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
2016	910	50
2016 (As date of July 2016, 1 USD Dollar was 3 TL)	\$303	\$16.6
2017	940	50
(As date of July 2017, 1 USD Dollar was 3.5 TL)	\$268*	\$14*

Source: Turkish Grain Board (TMO) www.tmo.gov.tr

Barley

Post revised the production forecast down to 6.3 MT of barley in MY 2017/18. The decrease is primarily due to late rains in springtime, which were not enough to eliminate winter drought effects in a few areas in Central Anatolia.

MY 2018/19 barley planting is projected to grow to 3.55 million hectares, up about 5 percent from MY 2017/18. The barley area increased considerably in unirrigated areas of the Central Anatolia region compared to last year. Good returns on barley impacted farmers' planting decisions. In the other important area for barley, such as the Southeast/GAP region, the planted area remained the same.

Barley production for 2018/19 is forecast at 6.75 MMT, up seven percent compared to the previous year, due to increasing planting area, assuming sufficient rain and favorable conditions from April to June. Barley fields are generally unirrigated and yields are directly linked to rainfall. So far, barley germination and plant development is favorable, except for a few fields in Southeast/GAP Region, which were affected by winter drought.

Corn

In MY 2018/19, Turkish corn planting area forecast is down about five percent to 530,000 hectares and production to 5.1 MMT, assuming sufficient rain and favorable conditions, similar with the long term yield average. MY 2018/19 corn planting in Turkey has not started yet. Good returns on alternative crops, such as cotton, as well as the recent relatively low world corn price and low domestic market corn price are expected to lead to decreased corn planting.

Second crop corn is a common product in Southeast Anatolia, especially in Sanliurfa and Mardin regions. Some farmers in Harran, in the Southeast Region, who used to plant milling wheat as a first crop and corn as a second crop, have switched back to cotton instead of double cropping. Due to increased cotton planted area against corn in the Southeast Region, especially for the last two years, the second crop corn harvest expectation is also down. Therefore, first crop corn planted area will be the same in MY 2018/19, but the second crop corn planted area is expected to decrease. The decrease in total corn planting is projected at about 20,000 ha in MY 2018/19.

Corn area was 550,000 ha and production was 5.4 MMT in MY 2017/18, down slightly from the previous year, mainly due to the decrease in second crop area. High returns for cotton and oilseeds, as well as a significant increase in the production support payment for those crops, are impacting planting decisions.

First crop corn planting is common in the Cukurova, Aegean, and Marmara regions. First crop corn planting started in February 2018. The high returns for cotton, peanuts, and vegetables led corn farmers to plant these instead of corn; hence there will be a two percent decrease in corn area in Cukurova. In some irrigated areas of the Aegean region, corn will also lose some planted area to cotton, though this was partly compensated for by the increase in corn production in Central Anatolia.

Rice

Post forecasts paddy rice production at 806,000 MT in MY 2018/19 with 1,000 ha increased planting area. Planting area is projected to be with 100,000 ha, up one percent compared to the previous year, due to sufficient precipitation.

MY 2017/18 total rice area and production are estimated at 99,000 hectares and 776,000 metric tons, up slightly from previous year due to yield increases with new varieties.

Rice planting will start at the end of April 2018 and finish by the end of the next month. Edirne Province in Thrace Region produces more than 50 percent of the country's paddy rice production. According to the Turkish State Water Authority, the cumulative rainfall from October 2017 to January 2018 in the Thrace region was 409.6 mm, while the average level for that region is 394.0 mm. This amount is three percent higher than the national historical average for Thrace region, and it is 18 percent higher than last year. Sufficient precipitation and high water levels in the dams have allowed farmers to plant more rice, but the exact numbers will be clear after May.

Rice yields depend on rainfall at the end of August and early September. The harvest normally begins in September and ends in October. In Central Anatolia, Cankiri and Corum regions produce nearly a quarter of Turkey's paddy rice production. Osmancik and Baldo varieties are the well-known varieties among farmers and consumers and have dominated the region for many years. However, new varieties

such as Cammeo, Galileo, Ronaldo, and Luna are rising in popularity because of high yields and high milling rates (Table 33). Farmers are taking advantage of opportunities to increase yields, and they have begun trying different varieties. Despite similar shapes of grain, the new varieties have different cooking and flavor characteristics. According to market sources, some farmers faced marketing issues with new varieties due to the fact that they have not gained recognition yet by the public.

Table 6: Average yield and Milling Rate by varieties

Paddy Rice Varieties	Yield MT/ha	Milling Rate
Baldo	6.5/7.0	%55
Cammeo	7.0/7.5	%57
Osmancik (inc; Yatkin, Efe, Gala)	7.5/8.5	%60
Ronaldo	7.5/8.5	%60
Luna	9.5/10	%68

Sources: Industry Sources

CONSUMPTION

Wheat

Turkish domestic wheat consumption is forecast at 17.8 MMT in MY 2018/19, up 200,000 MT from the 2017/18 year. The majority of wheat is utilized for human consumption as flour and pasta (some of which is exported), with the rest of the wheat used as feed. Seed and industrial consumption remains the same, so the increase in consumption is in the food and feed use sector, which typically varies inversely to the amount of wheat produced and quality expectations. For example, in high production years, there is abundant low-quality feed wheat. Consumption for food usage is forecast to increase in parallel with population growth and the return of high numbers of tourists to Turkey in MY 2018/19.

Post revised the wheat consumption forecast down to 17.6 MMT in marketing year 2017/18, due to decreasing feed wheat usage. Availability of feed wheat was limited compared to the previous year, because of the general characteristic of crop.

There are several factors impacting wheat products consumption in Turkey. According to Turkish National Statistics, the population growth rate of Turkey is 1.2 percent and median age is 31. Turkey has a population of 80 million and also is currently hosting more than three million refugees. In 2016, the Turkish tourism sector struggled due to regional, political, and economic instability, but is springing back now and trying to make up for losses in recent years. According to Turkey's Ministry of Culture and Tourism, the number of foreigners visiting Turkey dropped about 30 percent from 36 million in 2015 to 25 million in 2016. The sector partly recovered in 2017, as the number of foreigners visiting Turkey increased by 27 percent to 32 million. The sector aims to again reach 2015 levels and expects 36 million in 2018. In MY 2018/19, despite decreasing the consumption trend of bread among high income consumers in metropolitan cities, total food, seed and industrial (FSI) consumption forecast is expected to increase to 16.8 MMT, up 100,000 MT from the 2017/18 year.

Bread, an iconic symbol of nourishment in Turkey, is still the staple food for the general population. Turkey produces about 100 million 250-gram loaves of fresh bread every day. In major cities like

Istanbul, Ankara, and Izmir, the diet has shifted from bread consumption to protein-based diets, but bread still carries a lot of cultural value in Turkish society and that is very hard to change, even with changing lifestyles and diets. Additionally, sourdough bread and gluten-free products are becoming popular among higher income consumers in Turkey.

A goal of national self-sufficiency in wheat production and stability of bread prices are always hot topics and indicators among politicians for performance of agricultural policies. Turkish government administrations carry out special policies on wheat, such as providing agricultural subsidies, intervention prices, and protective high tariffs. All across the country there are bread factories owned by municipalities, which supply consumers with low-priced bread. According to estimates, municipalities produce around 10 million loaves every day in Turkey, which is about ten percent of total bread production.

Turkey is a major wheat products producer in the world. In addition to 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 and exports wheat flour to 160 countries all over the world. There are 730 active flour factories, with a total of 30 MMT/year production capacities. Capacity use rate is around 50 percent. Due to competition, economies of scale, low profitability, and other sectoral reasons, consolidation among them is anticipated in the future.

According to industry sources, wheat flour exporters are requesting government assistance on a number of industry issues which are hindering exports. One is the new \$60/MT extra duty on Turkish flour that the Iraqi government started to impose in January 2018. This is putting Turkish flour at a disadvantage against competitors such as Iran. Additionally, through the help of a free trade agreement with Turkey, Bosnian-origin wheat flour is gaining market share in Turkey because of competitive prices. Turkey imported a record 105,000 MT of wheat flour from Bosnia in 2017. The industry would like an amendment in the free trade agreement to put quotas on Bosnian flour imports.

According to the Turkish pasta manufacturing industry, pasta consumption was about eight kilograms per person in 2016. Durum wheat demand has been very strong due to high levels of pasta products exports. There are 25 active pasta factories in Turkey with more than two MMT/year production capacity total. Capacity use rate is over 70 percent. There are also more than 140 factories for bulgur, biscuit/cracker, and semolina production in Turkey (Table 7).

Table 7: Wheat Products Industry Statistics

Wheat Products Industry			
Type of Product	Active Factories	Production Capacity/ Year (MMT)	Capacity use rate/ Year (percent)
Wheat Flour	730	30	50
Pasta	25	2	80
Bulgur	103	1.8	65
Biscuit/Cracker	30	1.3	60
Semolina	13	0.8	75

Sources: Industry Sources

The domestic wheat flour price remained stable in MY 2017/18. The wheat CIF import price in Marmara in February 2018 was \$202/MT for 11.5 percent protein, \$210/MT for 12.5 percent protein

and US\$ 218/MT for 13.5 percent protein. The average wheat flour export price was about \$310/MT in MY 2017/18. Strong exports and TMO’s domestic sales stabilized the domestic wheat flour market price.

Table 8: Average Wheat Flour Price at the Bandırma Commodity Exchange

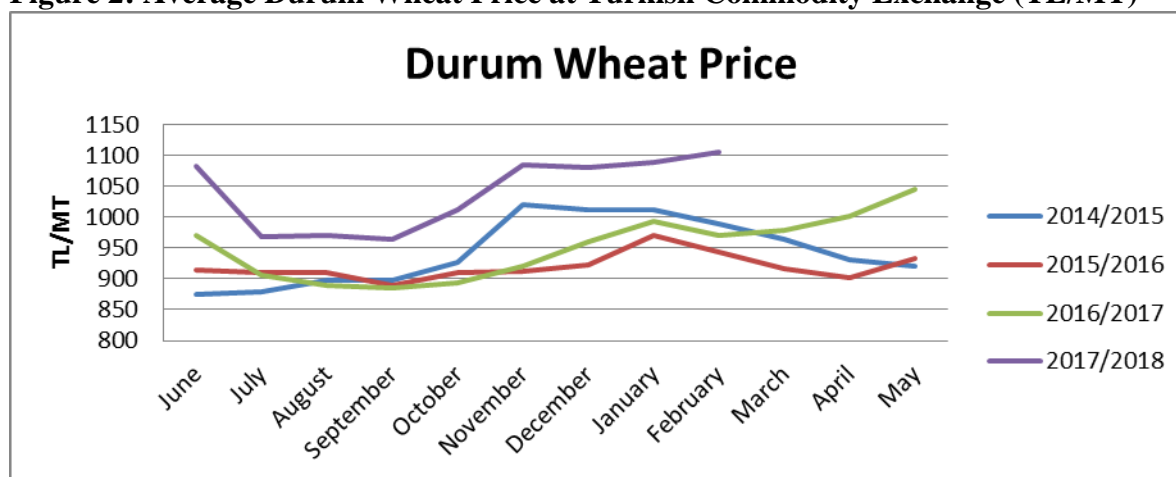
WHEAT FLOUR PRICE MY 2016/17 (TL/50 kg)												
	Jan	Feb	Mar	Apr	Ma y	Jun	Jul	Aug	Sep	Oct	Nov	Dec
201 6	64.0 9	64.2 0	64.1 5	63.4 5	63.8 1	63.8 9	65.1 1	64.6 1	65.4 0	69.1 2	66.1 9	65.8 3
201 7	67.4 8	67.5 3	66.3 6	68.5 5	68.8 3	68.8 9	69.9 8	73.3 5	68.6 0	69.8 5	67.8 1	68.3 1
201 8	68.6 7											

Source: Bandırma Commodity Exchange, Turkey

TMO announced it was willing to sell up to 73,621 MT of its domestic durum wheat stocks to pasta and semolina producers in October 2017 at a price of 1,070 TL/MT (around US\$ 281/ MT), excluding VAT and handling charges. As can be seen in Figure 2, just after TMO started selling durum wheat stocks, the price stabilized.

Due to competitive international prices (averaging \$245 /MT) delivery of imported durum wheat from Kazakhstan, Russia, and Canada rose just after the harvest, and then durum wheat price in the domestic market was in decline until September 2017. Durum wheat on the Konya CME was 1,106 TL/MT (\$290/MT) in February 2018, compared to 970 TL/MT (\$262/MT) in February 2017 (1 US\$=3.8 TL February, 2018 and 1 US\$=3.7 TL February, 2017).

Figure 2: Average Durum Wheat Price at Turkish Commodity Exchange (TL/MT)



Source: Price average from multiple commodity exchanges in Turkey

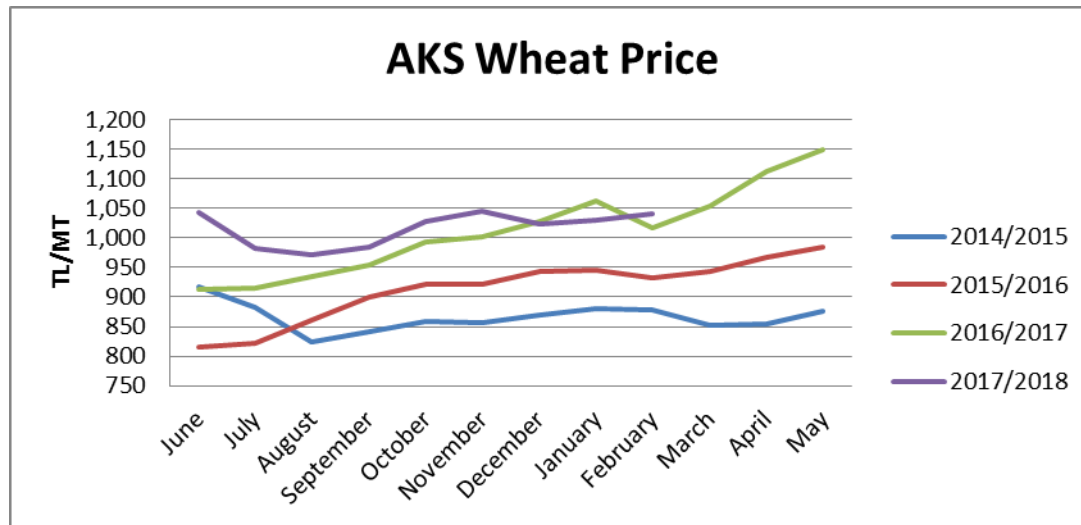
The Polatli CME is the main commodity market exchange for red milling wheat in Turkey. High quality red milling wheat on the Polatli CME was 1,110 TL/MT (\$301/MT) in February 2017 and was 1,106 TL/MT (US\$290/MT) in February 2018. Average red milling wheat price at the main commodity exchanges was around 1,040 TL/MT (US\$273/MT) in February 2018.

The price differences between milling and durum wheat were very narrow during MY 2017/18. Durum wheat normally has lower yields but higher prices compared to milling wheat, but this was not the case in MY 2017/18. This will lead increased milling wheat production and decreased durum wheat production in MY 2018/19.

Turkish wheat prices can be followed by using the major Commodity Exchanges' websites:

- 1) <http://www.polatliborsa.org.tr/>; 2) <http://www.ktb.org.tr> 3) <http://www.adanatb.org.tr/>
- 4) <http://www.esktb.org.tr/> 5) Also TMO's [Daily Market and Commodity Exchange Prices Bulletin](#) states recent commodity prices.

Figure 3: Average Red Milling Wheat Price at Commodity Exchanges in Turkey



Source: Price average from multiple commodity exchanges in Turkey

Table 9: Turkey Wheat Selling Price of TMO-purchased Grains after the harvest in MY 2017/18.

TMO selling prices					
Type	Selling Price (TL/MT); and Price in \$USD/MT, using exchange rate at the time of price; Excluding VAT and handling charges				
	October '17	November '17	December '17	January '18	February '18
Anatolian Hard White Wheat	940-995	940-995	960-999	980/1010	960/1100
	\$249-\$264	\$239/\$253	\$255/\$265	\$261/\$269	\$252/\$290
Anatolian Hard Red Wheat	940-995	940-995	960-999	980/1010	955/1025
	\$249-\$264	\$239/\$253	\$255/\$265	\$261/\$269	\$251/\$270
Durum	1055-1070	1060-1075	1065/1080	1080/1100	1045/1115
	\$280-\$284	\$270/\$273	\$282/\$286	\$288/\$293	\$275/\$293
Feed Wheat	880	880	885	890	900
	\$233	\$224	\$234	\$237	\$237
Imported Milling Wheat	985	1020	1020	1020	1020
	\$261	\$259	\$271	\$272	\$268

Source: Turkish Grain Board; www.tmo.gov.tr

Barley

Barley consumption in Turkey in MY 2017/18 is estimated at 6.5 MMT tons, up 20 percent from MY 2016/17, due to high production compared to the previous year. Barley consumption in Turkey in 2018/19 is projected at 6.8 MMT tons, due to a better production forecast, assuming a competitive domestic price increases usage in feed.

There are two major sectors using barley in Turkey. One is the malting and beer industry and the other is the feed sector. Malting barley consumption, which is estimated at 900,000 MT, has been steady in recent years. Barley traditionally has been preferred as a feed grain in Turkey, especially for ruminants, and barley consumption for feed use is directly linked with price. Feed companies can compensate for any reductions in barley availability by using residual and waste products from the food industries, such as bran. However, the feed sector continues to grow, and this also drives continued demand for barley. It is expected that TMO's sales and the elimination of the tariff for barley until the harvest will put pressure on barley prices.

Corn

There are two main users of corn in Turkey: the feed industry and the corn starch industry. Corn consumption moves in line with developments in the domestic feed sector. The Turkish feed sector has successfully continued to grow steadily in the last decade. MY 2017/18 consumption is projected to be about 7.27 MMT and will increase to 7.45 MMT in MY 2018/19, due to strong demand from feed sector.

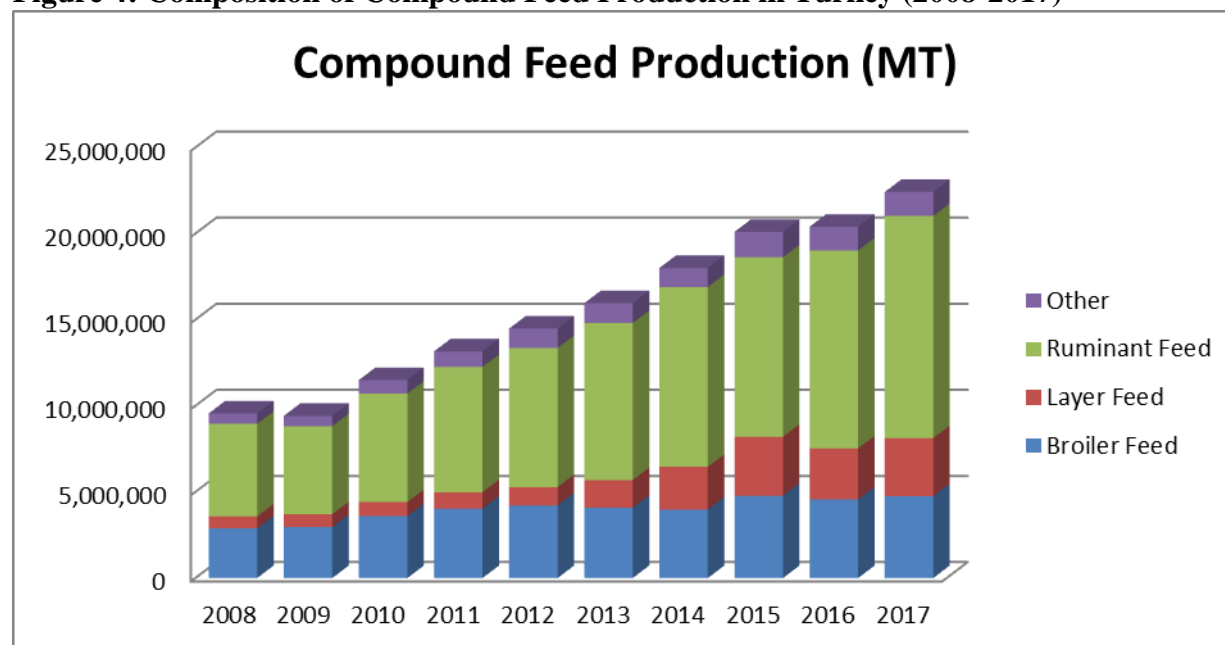
The starch based sugar industry is controlled by the government through production quota allocations, which also govern sugar production by the sugar beet sector. The total production capacity of the starch based sugar industry is about 1.5 MMT. The sector typically has used 900,000 MT of domestic corn annually. The Turkish government announces quotas each year, and is expected to decrease the quota allocations for starch based sugar in the coming days. For detailed information, please see Turkey Sugar Annual Report 2018 by [searching here](#). A possible decrease in corn use for starch based sugar production will likely reduce domestic corn consumption overall in Turkey, though it may be partially offset by production in other corn products like corn starch, and the amount of starch based sugar produced for export.

Feed Sector

Turkey's over 80 million person population and 80 percent urbanization rate continues to grow. This drives an increase in the use of commercial feed for animal production as opposed to on-farm feeding for rural households. In addition to the movement of people from rural to urban areas at a rapid pace, rising household income has increased the demand for protein-based food in Turkey for many years. Broiler meat is very popular and remains a more affordable alternative compared to red meat, which is very expensive in Turkey. Tourism numbers have also begun to resume in 2017, which also drives the increase in consumption.

In the medium and long term, rising household incomes will increase the demand for meat, poultry, and aquaculture products, ensuring continued demand for protein meals for feed. The feed industry has been able to quadruple in size over the last 15 years and has doubled in size the last six years.

Figure 4: Composition of Compound Feed Production in Turkey (2008-2017)



Source: Turkiyembir, www.yem.org.tr

According to government and industry sources, there were 515 feed factories active in Turkey with more than 30 MMT/year production capacity in total. The feed sector has grown on average 10 percent annually since 2010, despite a slowdown in 2016. Total compound feed production is 22.4 MMT, up ten percent compared to a year ago, due to the increase in ruminant and poultry feed production, as can be seen in the table below.

Table 10: Compound Feed Production in Turkey by Sectors (Thousand)

Feed Production	2011	2012	2013	2014	2015	2016	2017	% change 2016-2017
Broiler Feed	4,031	4,224	4,084	3,980	4,780	4,566	4,754	4.1
Layer Feed	954	1,059	1,602	2,481	3,417	2,958	3,370	13.9
Other Broiler Feed	596	671	685	672	912	785	759	-3.3
Broiler Sector Total	5,581	5,954	6,371	7,133	9,109	8,309	8,883	6.9
Ruminant Feed	7,279	8,079	9,127	10,442	10,427	11,502	12,906	12.2
Other Feed	302	456	464	429	569	591	630	6.5

Total	13,16 2	14,48 9	15,96 2	18,00 4	20,10 5	20,40 2	22,41 9	9.9
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Source: Turkiyembir, www.yem.org.tr

Although in 2016 ruminant feed production increased to 11.5 MMT from 10.4 MMT, poultry feed production decreased 8.8 percent to 8.30 MMT, from 9.1 MMT, but the feed sector overall grew 10 percent in 2017. Both layer and broiler industries are expected to grow moderately in the coming years due to growing domestic and export markets.

The Turkish livestock sector has been up and down over the last several years along with local milk and meat price fluctuations. Food prices and food inflation are hot topics in the Turkish press. The GOT has introduced many incentive programs to increase domestic livestock production and lower local red meat prices. Feed demand from the livestock sector has been increasing consistently during the last seven years. Ruminant feed production increased to 12.9 MMT from 11.5 MMT, up 12 percent compared to the previous year. Presently the Turkish feed industry is among the world's top twelve producers and in the top five in Europe. According to feed sector representatives, the sector is projected to grow in the coming years and has goals to reach 30 MMT by 2023.

Corn is a major feed ingredient for the poultry sector. Turkish poultry exports increased dramatically in calendar year 2017, reaching 412,552 MT, which is about a thirty percent increase compared to last year. Turkey didn't have any avian influenza cases so their access to export markets was not limited. Turkish chicken meat exports have grown almost five fold in the last decade, as can be seen in Table 10.

Table 11: Quantity of Poultry Meat Exports and Destinations in Last Decade

Commodity: 0207, Meat And Edible Offal Of Poultry (Chickens, Ducks, Geese, Turkeys And Guineas), Fresh, Chilled Or Frozen										
Annual Series: 2008 - 2017										
Partner Country	Quantity (MT)									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Iraq	9,148	50,587	62,081	119,150	165,257	204,640	214,232	167,316	165,379	220,795
Hong Kong	880	2,604	18,879	20,258	24,425	40,386	44,458	38,190	30,194	42,391
Congo	107	1,983	2,895	6,335	12,624	6,880	9,234	5,827	9,361	19,368
Tajikistan	8,994	10,072	9,818	12,512	14,552	16,758	20,186	17,738	15,672	18,054
Syria	193	171	113	672	765	23,787	19,386	17,287	12,441	17,648
United Arab Emirates	-	-	86	387	489	1,401	3,210	8,112	10,029	14,732
Congo Dem. Rep.	815	54	1,768	4,349	5,026	7,559	11,766	9,767	7,455	11,233
Libya	-	-	-	9,399	12,800	10,314	11,547	15,983	10,953	10,791

Other	59,713	49,173	43,715	63,242	68,590	51,911	70,493	57,903	57,558	57,540
Total	79,850	114,644	139,355	236,304	304,528	363,636	404,512	338,123	319,042	412,552

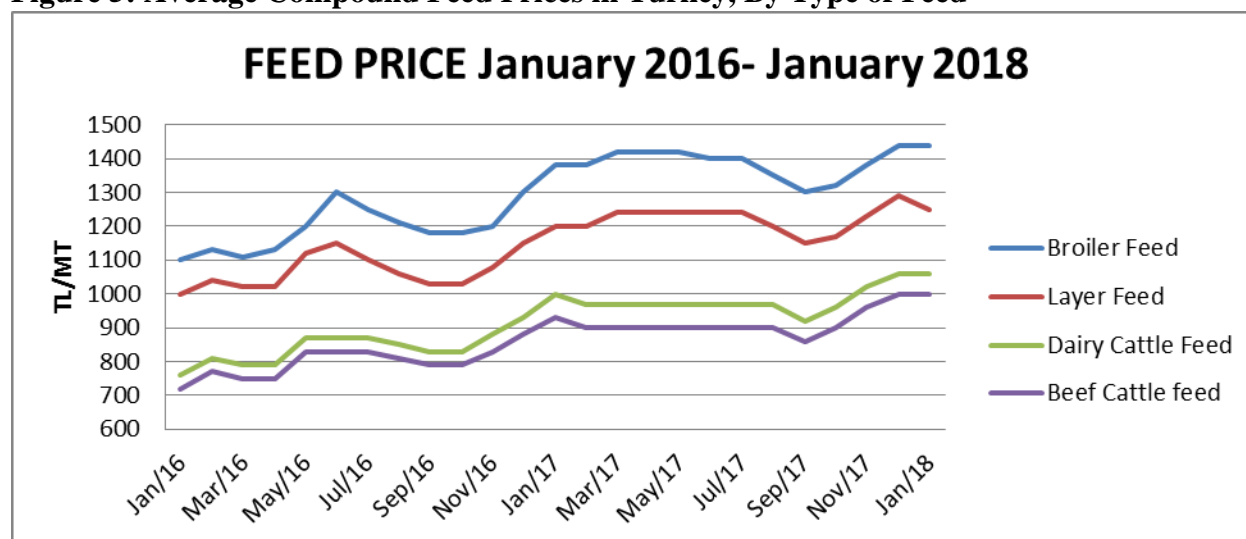
Source: Global Trade Atlas

Of Turkey’s broiler exports, more than half are to neighboring countries. The main destinations were Iraq (220,795 MT), Hong Kong (42,391 MT), Congo (19,368 MT), Tajikistan (18,054 MT), and Syria (17,648 MT) in 2017.

Egg production on modern farms has doubled in the last ten years, as a result of increases in both domestic egg consumption and exports. Although it declined in 2015 to 17.2 billion pieces (eggs) due to interruptions in exports, total production reached 18.5 billion pieces in 2016. With increasing domestic demand and dynamic export capacity, it is projected to continue to grow in the coming years. Domestic consumption of eggs was estimated to have increased to 200 pieces per person in 2016. The industry is continuing promotion programs to reach the European average consumption of 250 eggs per year. Turkey continues to export about twenty-five percent of its egg production.

The price changes for feed move in parallel with U.S. Dollar, since many of the feed materials are imported. For instance, broiler feed price was 1,380 TL/MT (\$368) in January 2017, and it was 1440 TL/MT (\$380) in January 2018. The feed has been steadily increasing, in terms of Turkish Lira, since January 2016. The GOT has taken measures to make feed more affordable by removing the value added tax from 8 percent to 0 percent on most of feed materials, except DDGS and corn gluten meal. The feed sector and farmers continue to struggle with high feed prices, which are up 25 percent in the last two years. This is mainly due to the devaluation of the Turkish Lira and increased world price of commodities, as the sector partially depends on imported raw materials.

Figure 5: Average Compound Feed Prices in Turkey, By Type of Feed



Source: Turkiyembir, www.yem.org.tr

Table 12: Recent Feed Prices by Month in Turkey (TL/MT)

Turkey: Feed Price (TL/MT)										
	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Broiler Feed	1420	1420	1400	1400	1350	1300	1320	1380	1440	1440
Layer Feed	1240	1240	1240	1240	1200	1150	1170	1230	1290	1250
Dairy Cattle Feed	970	970	970	970	970	920	960	1020	1060	1060
Beef Cattle feed	900	900	900	900	900	860	900	960	1000	1000

Source: Turkiyembir, www.yem.org.tr

The feed sector in Turkey is dynamic and always seeks new alternatives for better rations. Commodities under HS code 23, such as meals and brans, including DDGS, are increasingly popular in the feed sector (See Table below) due to high nutritional content, relatively low duty tax, and a competitive price in 2017. Turkey imported 6.6 MMT of feed materials in 2017, up 1.6 MMT compared to 2016. Turkey imported 1.7 MMT of wheat bran, up 20 percent compared to the previous year. In an effort to tackle food price inflation, the GOT reduced the wheat bran tariff from 5 percent to zero percent in November 2017.

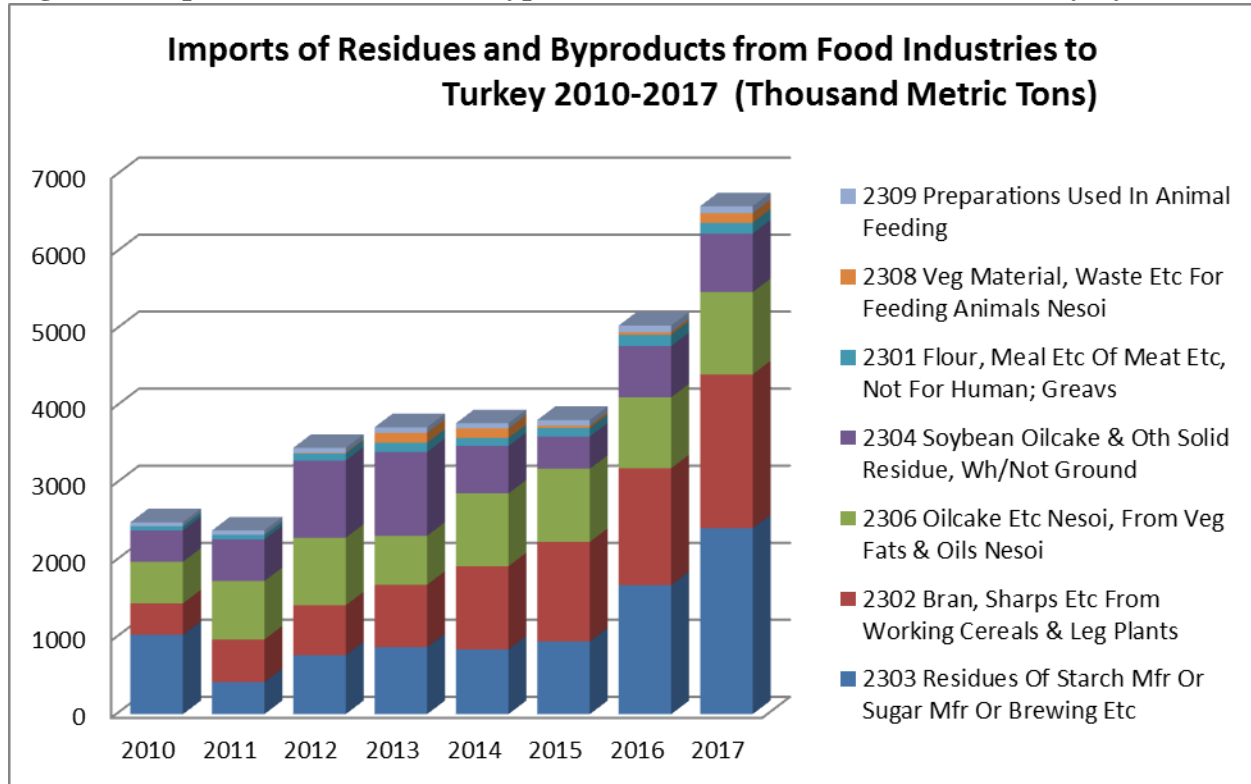
Table 13: Imports of Residues and Byproducts from Food Industries to Turkey

HS Commodity: 23, "Residues And Waste From The Food Industries; Prepared Animal Feed"					
Commodity	Description	Quantity (MT)			% Change 2016-17
		2015	2016	2017	
2303	Residues Of Starch Mfr Or Sugar Mfr Or Brewing Etc	944,682	1,676,604	2,413,075	44
2302	Bran, Sharps Etc From Working Cereals & Leg Plants	1,291,415	1,516,107	1,997,132	31
2306	Oilcake Etc Nesoi, From Veg Fats & Oils Nesoi	950,507	921,336	1,068,214	16
2304	Soybean Oilcake & Oth Solid Residue, Wh/Not Ground	417,203	664,401	759,202	14
2301	Flour, Meal Etc Of Meat Etc, Not For Human;	109,703	146,508	141,080	-4
2309	Preparations Used In Animal Feeding	30,373	32,961	124,414	77
2308	Veg Material, Waste Etc For Feeding Animals Nesoi	75,098	86,908	90,246	4
HS 23 (total)	Food Industry Residues & Waste; Prep Animal Feed	3,818,982	5,047,044	6,593,363	31

Source: GTA

Feed companies change their feed ratios to obtain the protein amounts needed in their feed products, and imported residues are becoming more popular as a substitute. Imported Residues and byproducts feed ratio has tripled since 2010, as can be in the figure below. Oilseeds and their byproducts are also widely used in the feed sector. For detailed information, please see [Turkey Oilseeds and Products Annual Report](#).

Figure 6: Imports of Residues and Byproducts from Food Industries to Turkey by HS Code



Source: Turkiyembir, www.yem.org.tr

Rice

Rice is irreplaceable for making pilaf, one of the most common dishes in Turkey. Turkish consumers prefer the well-known medium grain varieties of Baldo, Osmancik, and Calrose. According to market sources, when Turkish consumers read the names of these varieties on the package, they feel confident buying them. Long grain varieties are demanded by the food service sector in recent years, due to their competitive prices.

Rice consumption in Turkey in MY 2018/19 is forecast at 790,000 tons, and remains the same as the 2017/18 estimate. Demand is driven by the growing population and increasing numbers of tourists but growth will be offset by reductions in per capita consumption by the domestic population because of perceptions of rice by some as less healthy and inconsistent quality.

The sector is optimistic about the upcoming tourism season after a tough two years with a 30 percent decrease in tourist numbers since 2016. According to booking and reservation numbers, tourism expectations are better for the coming year. However, these gains are offset by lower demand than usual from the retail and food service sector due to some ongoing negative perceptions from consumers about rice as an unhealthy food in recent years. The other ongoing issue for consumers is blended imported rice. Some rice companies have been blending lower priced imported rice, such as Indian or Chinese origin, with domestic varieties to have better retail prices. This creates some consistency and quality problems with the rice when cooking, which impacts consumers' perception about rice in general, and hurts the industry as a whole.

TRADE

Wheat

According to the official statistics of Turkey, during the first eight months of MY 2017/18, total wheat imports were 3.1 MMT. For MY 2017/18, wheat imports into Turkey are expected to reach 5.5 MMT, due to stable demand from wheat product producers.

Russia (2,259,892 MT), Lithuania (493,681 MT) and Mexico (324,118 MT) were the largest wheat suppliers for Turkey in MY 2016/17. Russia is the main supplier of milling wheat to Turkey with 2.2 MMT in MY 2016/17 so far, followed by Lithuania with 200,000 MT of milling wheat during the same period. Turkey imported 3.1 MMT of durum wheat during the first eight months of MY 2017/18. According to market sources, almost 1 MMT of wheat is also on its way to Turkey.

Table 14: Turkish Wheat Imports (Origin)

Countries	MY 2014/15	MY 2015/16	MY 2016/17	MY 2017/18*
Russia	4,022,474	2,875,740	2,259,892	2,222,252
Lithuania	237,039	422,726	493,681	200,417
Ukraine	246,934	150,768	169,464	197,071
Canada	88,104	168,046	144,499	148,084
Kazakhstan	34,527	45,064	87,424	137,219
Mexico	302,630	117,043	324,118	1,459
Germany	24,636	127,380	255,840	0
Other	826,206	119,099	629,390	250,567
Total	5,782,550	4,025,866	4,364,308	3,157,069*

* June 2017-December 2017

Source: Turkish Statistics Institute, does not include transshipments

For MY 2017/18, wheat exports (including wheat products, such as flour) from Turkey are expected to be 6.5 MMT, due to strong sales into neighboring countries and African countries in the first seven months of the marketing year.

For MY 2018/19, total wheat exports from Turkey, including wheat products, are forecast at 6 MMT, down 500,000 MT from 2017/18, due to ongoing issues with neighboring countries which complicate trade, such as financial issues with Iraqi importers and Iraqi governments. The Iraqi government has started to impose an extra \$60 per MT as a duty on Turkish flour.

Within the scope of a set of measures to fight rising food inflation in Turkey, the Turkish government reduced the import tariff on wheat, barley and corn from 130 percent to 45, 35, and 25 percent respectively, according to a decree published in the Official Gazette on June 28, 2017.

TMO was very active with their more than 2 MMT of wheat stocks in MY 2017/18. TMO opened tenders after the harvest for 336,000 MT of wheat in order to supply high quality wheat to domestic market. The wheat was bought under a zero tariff quota through a cabinet decision. In contrast to their actions in recent years, the Turkish Grain Board (TMO) did not sell any products to exporters within the scope of the Inward Processing Regime.

Table 15: Wheat foreign trade data in MY 2016/17 and MY 2017/18

TURKEY: WHEAT FOREIGN TRADE (excluding wheat products)				
MONTH	IMPORT MY 2016/17 (MT)	IMPORT MY 2017/18 (MT)	EXPORT MY 2016/17 (MT)	EXPORT MY 2017/18 (MT)
June	220,390	255,674	2	140
July	284,952	165,762	3,837	3,009
August	487,917	276,090	2,449	11,237
September	423,165	597,354	8,793	1,600
October	391,201	421,397	5,790	3,405
November	356,392	546,335	1,311	19,868
December	366,647	894,457	2,817	1,542
<i>Sub-total (June-Dec.)</i>	2,530,664	3,157,069	24,999	40,801
January	246,172		462	
February	240,256		344	
March	314,789		516	
April	360,025		317	
May	672,402		141	
MY TOTAL	4,364,308	*5,500,000	26,779	*100,000

*forecast, does not include wheat products

Source: Turkish Statistics Institute, does not include transshipments

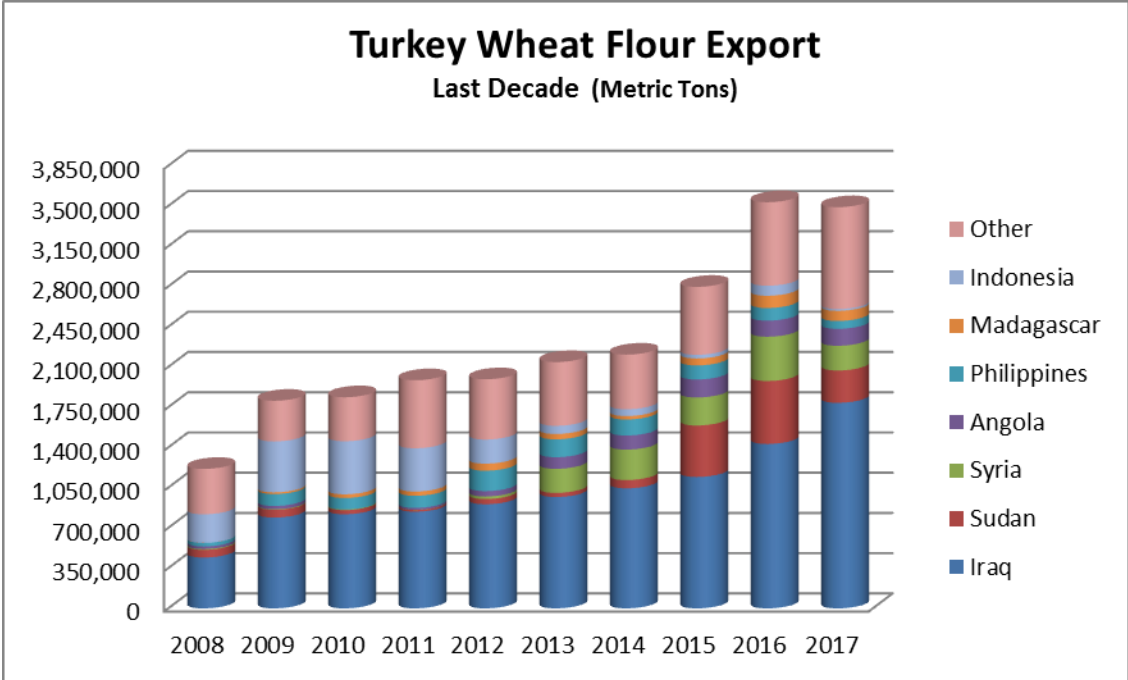
Turkey has ranked as the top wheat flour exporter in the world in recent years. They have access to comparably cheap wheat from the Black Sea region and a strategic location, where Turkey acts as a hub for trade with neighboring countries. Turkish flour exports have surged, reaching almost \$1 billion 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 with the help of Turkey's Inward Processing Regime (IPR) policy.

The GOT applies high tariffs on grains to protect the domestic market. Despite considerable price differences between domestic and international prices, there is an open door for exporters of value added products to import inputs tariff free.

A number of Turkish agricultural exports benefit from Turkey’s IPR policy. Under the inward processing regime, authorized by the Undersecretary for Foreign Trade, grain processors may import wheat duty free when they register grain exports, such as wheat flour, pasta and biscuits exports. Outside of this inward processing regime, the applied custom rate for wheat is now 45 percent. Almost all wheat imports in MY 2017/18 have been done under the scope of the IPR with zero tariffs by wheat product exporters.

The other advantage for wheat flour exporters is that the byproducts of flour making are very valuable in the domestic market as inputs for animal feed producers. For instance, wheat bran is 740TL/ton (\$196 per ton) in domestic market as of February 2017, though it is only \$170 in the international market. The high demand for byproducts of flour production contributes to Turkish flour exporters’ global competitiveness. Turkish wheat flour exports have grown almost three-fold in the last decade, as can be seen in Figure 7.

Figure 7: Turkey Wheat Flour Export Last Decade, Calendar Year



Source: Global Trade Atlas (GTA); Calendar year data: January – December

Turkey successfully increased wheat products exports in recent years. Turkey exported about 6.177 MMT of wheat products in MY 2016/17. It is expected that wheat product exports will be better in MY 2017/18, compared to the previous year, mainly due to growth in pasta exports and other non-flour wheat products exports. Post revised wheat products exports forecast in MY 2017/18 down from 6.5 MMT to 6.3 MMT. This is due to financial issues with importers in neighboring countries which are a potential threat for growing exports in the coming months for wheat flour. However, the growth in pasta exports and other non-flour wheat products will partly offset possible market losses in flour exports.

Table 16: Turkish Wheat Flour Exports

Quantity of Wheat Flour Exports MT					
MONTH	MY 2014/15	MY 2015/16	MY 2016/17	MY 2017/18	% Change 2016/17- 2017/18
June	153,575	207,531	243,801	238,698	-2
July	158,564	223,666	240,754	286,931	19
August	207,893	267,742	387,423	349,872	-10
September	194,012	222,689	304,075	298,474	-2
October	189,591	368,382	336,916	296,261	-13
November	197,963	287,158	289,703	270,858	-6
December	170,794	243,203	292,015	263,166	-10
<i>June-Dec Total</i>	<i>1,272,392</i>	<i>1,820,371</i>	<i>2,094,687</i>	<i>2,004,260</i>	<i>-4</i>
January	147,508	248,009	288,466		
February	150,421	349,590	289,332		
March	205,254	288,604	344,204		
April	218,048	249,111	260,391		
May	254,914	302,688	303,052		
	2,248,537	3,258,373	3,580,132	3,370,000**	-6**

* June 2017-December 2017; **Forecast

In MY 2016/17, Iraq (1,591,000 MT), Sudan (425,000 MT), Syria (365,000 MT) and Angola (163,000 MT) were the main consumers of Turkish wheat flour (See Table 17). Neighboring countries are still the largest markets, making up over 50 percent of exports. In the first seven months of MY 2017/18, Turkey exported 2 MMT of flour, slightly under the amount from the same period last year (Table 16). However, ongoing financial issues with neighboring countries, especially the largest customer, Iraq, are provoking anxiety in the current and next marketing year. Additionally, there are new flour mill investments in competing countries that have their own raw material, such as Ukraine, and new mills in prominent markets like Sudan. These trends are a concern for Turkish flour exporters.

Table 17: Wheat Flour Export Markets

Major Wheat Flour Markets of Turkey					
Partner Country	Quantity (MT flour)			% Share	Quantity MT*
	MY 2014/15	MY 2015/16	MY 2016/17	MY 2016/17	MY 2017/18*
Iraq	1,017,660	1,313,700	1,591,469	44%	1,048,707

Syria	226,237	280,637	364,612	10%	185,474
Angola	130,671	141,773	163,630	5%	92,474
Sudan	219,609	593,351	425,076	12%	4,553
Other	654,360	928,912	1,035,347	29%	672,974
TOTAL	2,248,537	3,258,373	3,580,134	100%	2,004,182

*June 2017-December 2017; Source: Global Trade Atlas (GTA)

After flour, pasta production is an important industry in Turkey's wheat products sector. Pasta exporters have been expanding their markets in Africa with the help of a new amendment in 2015 to the IPR. The amendment allows tariff-free imports of milling, wheat up to 30 percent, if producers blend milling wheat and durum wheat in order to produce pasta for the African market. They can only sell 100 percent durum wheat pasta in Turkey.

Table 18: Quantity of Pasta Exports from Turkey (MT of Pasta)

Quantity of Pasta Exports			
Month	MY 2015/16	MY 2016/17	MY 2017/18
June	63,439	84,211	87,561
July	56,270	62,128	80,561
August	52,115	83,399	96,736
September	51,070	71,222	88,021
October	60,505	69,392	92,314
November	61,965	69,151	98,012
December	71,430	64,096	103,017
<i>Sub, Total Jun-Dec</i>	416,794	503,599	646,222
January	56,358	74,964	
February	62,332	71,882	
March	77,173	83,755	
April	67,556	85,833	
May	66,203	97,040	
MY TOTAL	746,416	917,073	1,200,000*

*forecast; Source: Global Trade Atlas (GTA)

In MY 2017/18, Benin (83,000 MT), Angola (78,400 MT) and Somalia (59,000 MT) are the main buyers of Turkish pasta. The pasta exporters are continuing to increase exports to markets in Africa.

Table 19: Quantity of Pasta Exported in MY2015/16, 2016/17 and 2017/18

Quantity of Turkish Pasta Exported by Destination Countries (MT)			
Countries	MY 2015/16	MY 2016/17	MY 2017/18*
Benin	88,589	99,572	83,011
Angola	73,879	39,481	78,431
Somalia	62,648	86,903	58,903
Iraq	52,246	61,976	30,581
Japan	44,974	50,773	28,454

Togo	41,822	39,481	47,880
Ghana	22,634	35,587	29,418
Other	359,624	503,300	389,544
<i>Total</i>	<i>746,416</i>	<i>917,073</i>	<i>646,222</i>

*June 2017-December 2017; **Source: Global Trade Atlas (GTA)**

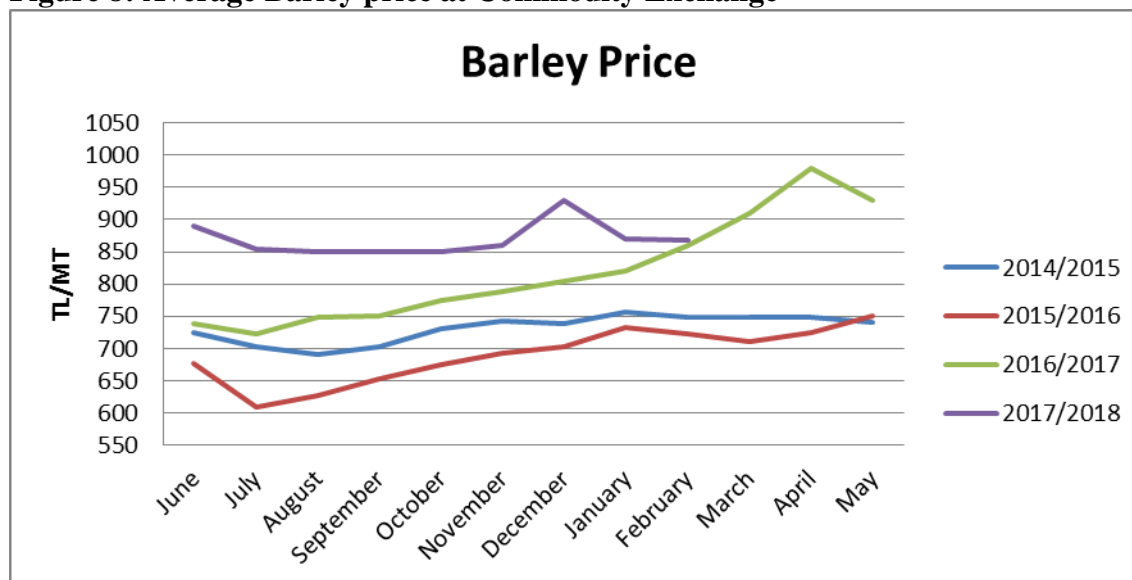
According to official figures, Turkish pasta export increased to 917,073 MT in MY 2016/17, up about 22 percent compared to MY 2015/16. Turkey is forecast to export 1,200,000 MT of pasta in MY 2017/18 due to expanded markets in African countries. All wheat product exporters are concerned about decreasing unit prices as well decreasing profits due to high competition in the sector, and worry that it may cause consolidations and acquisitions in the short run.

Barley

For MY 2018/19, barley imports into Turkey are forecast at 100,000 MT, due to stable demand from the feed sector despite large domestic supplies. Domestic barley price decreased from a historical high after harvest, and remained stable with the help of imported barley during the summer in MY 2017/18. The barley price at the Polatli CME in February 2018 was 872 TL/MT (\$242) compared to around 851 TL/MT (\$223) a year before. Due to insufficient beginning stocks and insufficient imported barley in the market, the price reached a peak of 1100 TL/MT in some places in May 2017, but went down after the GOT's tariff reduction in July 2017 that sparked imports, as well as TMO's barley imports.

As of February 2018, the price of imported barley was CIF Marmara \$218/MT. As seen in the figure, barley prices have been increasing in recent months. Although corn and barley prices in international markets were similar last year, barley is becoming more expensive than corn, which can also be seen happening in the domestic market in Turkey.

Figure 8: Average Barley price at Commodity Exchange



Source: Price average from multiple commodity exchanges in Turkey

Through a governmental authorization, TMO imported 250,000 MT of barley through tenders during MY 2017/18 in order to meet sectoral demand and regulate domestic prices. TMO has offered to sell imported barley stocks to the domestic market starting in October 2017 at prices of 770 TL/MT and 810 TL/MT (US\$ 205/MT), excluding VAT and handling charges.

Table 20: Turkey Barley Trade

TURKEY: BARLEY FOREIGN TRADE				
MONTH	IMPORT MY 2016/17	IMPORT MY 2017/18	EXPORT MY 2016/17	EXPORT MY 2017/18
June	3	445	0	0
July	0	107,154	0	0
August	4,234	47,161	0	0
September	0	96	0	56
October	53	56,821	0	116
November	18	24,138	784	52
December	35	12,179	4615	0
January	14,314		174	0
February	14,982		8422	
March	14,322		0	
April	50,850		0	
May	41,648		0	
MY TOTAL	140,459	550,000*	13,995	20,000*

* Forecast

Source: Turkish Statistics Institute, does not reflect transshipments

Within the scope of a set of measures against food inflation, in decrees published in the Official Gazette, the Turkish government reduced the import tariff on barley from 130 percent to 35 percent on June 28, 2017, and then again from 35 percent to 0 percent as of December 31, 2017 until March 2018. After March 31, 2018, it is expected to return to 35 percent.

After a tough harvest season in MY 2016/17, Turkey started the new season with historically low beginning stocks in MY 2017/18. According to official figures of Turkey, during the first seven months of MY 2017/18, total barley imports were 250,000 MT.

For MY 2017/18, barley imports into Turkey are expected to reach 550,000 MT due to TMO's imports and the new zero tariff import opportunity for the private sector. Russia is the main supplier of barley to Turkey with 200,000 MT in MY 2017/18 so far, followed by Ukraine with 150,000 MT of barley during the same period.

Turkey exported about 200 MT of barley to the "Turkish Republic of Northern Cyprus". For MY 2017/18, barley exports from Turkey are expected to reach 20,000 MT, assuming demand from neighboring countries. For MY 2018/19, total barley exports from Turkey are forecast at 20,000 MT, similar with the previous year.

Corn

Post revised the corn import forecast up to 2 MMT in marketing year 2017/18, due to the strong demand from the feed sector, low beginning stocks, and insufficient domestic production. Last marketing year, both TMO and the private sector had refrained from importing much corn, but this year as soon as they could they resumed corn imports, with the private sector taking a very active role. In MY 2017/18, contrary to the previous year, the private sector was eager to buy corn after the harvest, so TMO procured only 205,000 MMT of corn, compared to 1.7 MMT in MY 2016/17.

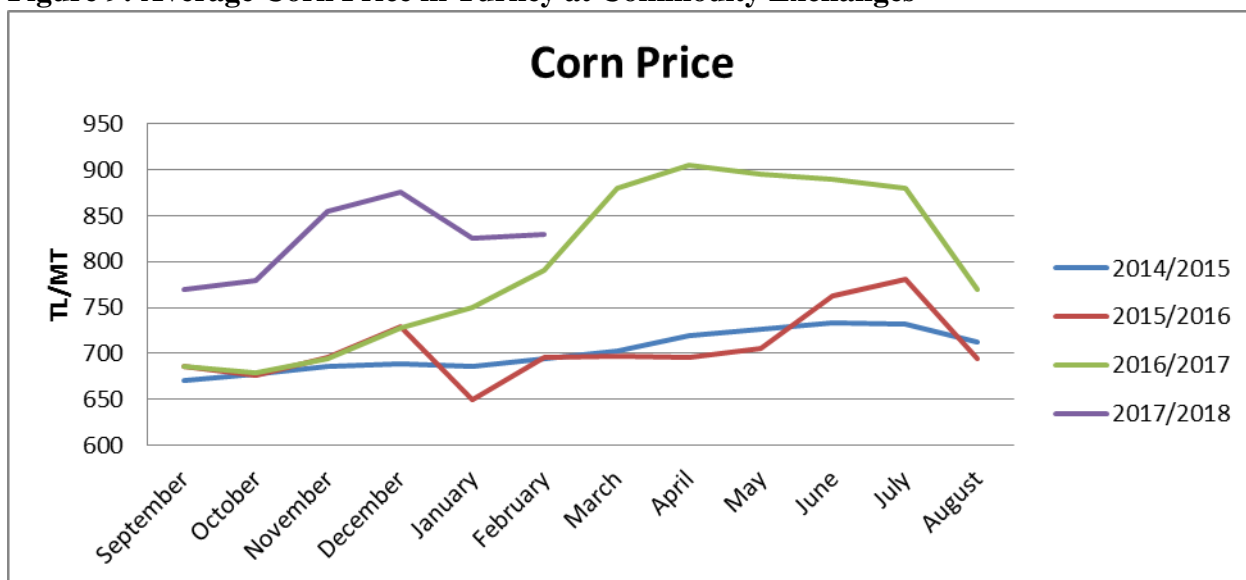
For MY 2018/19, corn imports into Turkey are expected to remain high and are forecast at 2.3 MMT, due to insufficient domestic supply and stable demand from the feed sector.

TMO also was active in the corn market. TMO announced the MY 2017/18 corn procurement price on September 21, 2017 at 760 TL/MT (\$215/MT), compared to 740 TL/MT (\$245/MT) in MY 2016/17. Farmers complained about TMO's late procurement price announcement, which in the past they used to announce in August. The corn price was about 730-740 TL/MT just before TMO's announcement in the domestic market.

TMO has imported 380,000 MT of corn since the harvest to meet feed sector demand. TMO's selling price was 810-820 TL/MT for domestic market in MY 2017/18, which is a good indicator of the average domestic prices this year.

The Adana CME is the main commodity market exchange for corn in Turkey. Due to tight supplies in the market, domestic prices are going up. Corn price on the Adana CME is about 830 TL/MT (US\$218/MT) in February, 2018 which was 780 TL/MT (US\$217 /MT) a year ago.

Figure 9: Average Corn Price in Turkey at Commodity Exchanges



Source: Price average from multiple commodity exchanges in Turkey

Transshipments were moderate in MY 2018/19. According to market sources, 200,000 MT of corn were transferred to neighboring countries from bonded warehouses in Mersin and Iskenderun in the first four months of MY 2018/19.

According to official statistics, total corn imports during the first months of MY 2017/18 were about 700,000 MT, which is high compared to the previous years. Strong demand from the feed sector, TMO's early imports, and expectations for next harvest impacted import decisions. This is very different from last year when an uncertain economic environment, availability of other corn products, and TMO's strong sales for exporters made importers reluctant.

Table 21: Corn foreign trade of Turkey by Month (MT)

MONTH	IMPORT MY 2016/17	IMPORT MY 2017/18	EXPORT MY 2016/17	EXPORT MY 2017/18
September	46	30,847	1,972	13,367
October	540	87,571	13,928	14,177
November	5,829	161,289	2,420	6,434
December	21,219	413,532	3,454	8,997
January	48,303		16,787	
February	25,746		35,864	
March	29,446		4,362	
April	83,070		4,187	
May	357,425		2,320	
June	367,641		1,296	
July	355,596		7,828	
August	95,079		2,376	
MY TOTAL	1,389,940	2,000,000*	96,794	50,000

*Forecast

Source: Turkish Statistical Institute

Note this chart does not include transshipments through Turkey. It includes corn for seed.

Russia (450,000 MT), Serbia (167,500 MT) and Romania (56,600 MT) were the largest corn suppliers for Turkey in MY 2017/18. As of January 2018, Turkey imported about 700,000 MT of corn in MY 2017/18. According to market sources, at least 200,000 MT of corn is also on its way to Turkey.

Table 22: Turkey Corn Imports by Country (MT)

Turkey: Corn Imports, Year Ending: August			
Partner Country	Quantity MT		
	MY 2015/16	MY 2016/17	MY 2017/18*
Russia	402,190	450,267	453,293
Romania	93,506	219,835	56,682
Serbia	4,022	403,253	167,295
Ukraine	10,050	112,439	1,498
Other	57,465	204,146	14,471

Total	567,233	1,389,940	693,239
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*September 2017-December 2017

Source: Turkish Statistical Institute, Note this chart does not include transshipments through Turkey.

According to Turkish Statistical Institute, from September 2017 to December 2017, Turkey exported about 43,000 MT of corn, including as seeds. Main destinations were Iraq (35,688 MT) and the United States (3,014 MT).

Table 23: Turkey Corn Exports by Country (MT) (includes seed corn)

Turkey: Corn Exports, Year Ending: August			
Partner Country	Quantity MT		
	MY 2015/16	MY 2016/17	MY 2017/18*
United States	1,102	44,619	3,014
Iraq	44,540	27,316	35,688
Germany	2,817	2,917	1,092
Italy	2,261	1,236	591
Other	16,009	20,707	2,590
Total	66,729	96,795	42,975

*September 2017-December 2017

Source: Turkish Statistical Institute

Table 24: Turkey Corn Exports by HS Codes

Turkey Export Statistics To World				
Commodity: 1005, Corn (Maize) Year Ending: August				
Commodity	Description	Quantity MT		
		2014/15	2015/16	2016/17
1005	Corn (Maize) Total	46,382	66,729	96,795
100590	Corn (Maize), Other Than Seed Corn	31,677	52,950	85,413
100510	Corn (Maize) Seed, Certified, Excluding Sweet Corn	14,705	13,779	11,382

Source: Turkish Statistical Institute

In MY 2016/17, Turkey exported about 97,000 MT of corn, of which about 11,400 MT was seed. There is not accessible data in Turkey on organic corn production or organic corn trade. According to private sector sources, Turkey produces around 40,000 MT of organic corn annually for export markets. Post revised corn exports to 100,000 MT due to increased unexpected demand for corn in MY 2017/18.

For MY 2018/19, corn exports from Turkey are forecast at 100,000 MT, similar with MY 2017/18, due to stable demand for seed and organic corn. Also Turkey is a hub for transshipments, and lots of corn is shipped through Turkey to export markets. U.S. import data shows the scale of these transshipments; organic corn (excluding seed) shipped from/through Turkey to the United States in MY 2016/2017 remained similar to last year at around 352,000 MT. According to Turkish export statistics, Turkey registered 44,610 MT of corn exports (excluding seed) to the United States from Turkey, though Turkey's export data doesn't show organic products separately. Based on these figures, roughly over

300,000 MT of organic corn is estimated to have been transshipped through Turkey to the United States in MY 2016/17.

Table 25: Turkey Corn Exports by Countries and Unit Value

Turkey Corn Exports by Countries and Unit Value						
Commodity: 100590, Corn (Maize), Other Than Seed Corn						
Year Ending: August						
Partner Country	2014/2015		2015/2016		2016/2017	
	Unit Value \$USD/MT	Quantity MT	Unit Value \$USD/MT	Quantity MT	Unit Value \$USD/MT	Quantity MT
United States	451	22,969	417	1,102	317	44,610
Iraq	280	3,513	243	44,421	220	27,027
Netherlands	870	6	829	23	286	7,006
Belgium	490	1,382	457	1,267	443	2,070
Egypt	502	1,156	488	711	454	1,448
Norway	567	863	523	823	504	1,010
Other	517	1,788	489	4,603	548	2,242
Total	442	31,677	281	52,950	298	85,413

Source: Turkish Statistical Institute

The certified seed sector is very dynamic in Turkey with the help of a good climate and labor force advantages. Domestic seed producers have contracts with international seed technology companies and produce seed in Turkey. Turkey exported 11,382 MT of corn seed in MY 2016/17, with EU countries being the main destination. This is a marginal decrease compared to the previous year. For additional information on Turkey's seed sector, see the [Turkey Planting Seeds Sector Overview Report](#).

Rice

For MY 2018/19, rice imports to Turkey forecast is 310,000 MT, milled equivalent, down 13 percent compared to the previous year because production is expected to increase. This is assuming domestic supply will not be high enough to meet Turkish consumer demand, despite increasing domestic production, and expected continued exports to regional markets.

In the first four months of MY 2017/18 (September-December 2017), Turkey imported about 102,000 MT of rice, milled equivalent. It is forecast for MY 2017/18, total rice imports into Turkey will be at 350,000 tons, milled equivalent.

According to Turkish statistics, Turkey has nationalized about 102,000 MT of rice during the first four months of MY 2017/18, of which about 56,700 MT was milled rice, 34,200 MT was paddy rice and 11,400 MT was brown rice (See Table 26). European-origin rice seems to be preferred by Turkish importers so far this year. Rice traders use the benefits from free trade zones very actively. Turkish importers store the rice in bonded warehouses for 2-3 months until they find buyers to delay advance

payment of the tariff and VAT. Therefore, when comparing importer and exporter data regarding Turkish rice trade, there are some differences due to transshipments and stocks held in free zones.

Most of the paddy rice (rice in the husk) imports are done with zero tariffs under the inward processing regime (IPR) for export purposes. This IPR process for the paddy rice sector is similar to the one used in the wheat sector. Rice exporters gain import certificates when exporting milled rice, which allows them to import paddy rice with zero tariff in order to produce rice for exports. The main target is to support Turkey's millers to become the rice miller for the region. Paddy millers are concentrated in the Mersin region, where they are closer to Middle Eastern countries. They import paddy rice, mill it, and export it to Middle East and North African countries. According to market sources, 25 percent of the paddy rice imports are done under the IPR for export purposes.

Besides traders, another prominent player in the rice market is the Turkish Grain Board (TMO). TMO imported 7,500 MT of Calrose paddy rice and 2,250 MT of milled Calrose Rice, with tenders issued in December 2017 to meet the demand from the retail sector and stabilize the domestic rice price. TMO will also import 1,000 MT of Calrose rice within the scope of a tender issued in March 2018. Calrose variety rice is the favorite among Turkish consumers, but importers have been hesitant to import because of the current price of milled Calrose rice, which was about \$1,000/MT CIF as of February 2018.

Turkey generally imports paddy rice from United States. Importers remain concerned about the risk of possible rejection of rice though from genetically engineered (GE) corn or soy products dust. Even at unavoidable low levels, any detection of a GE product, even if approved for feed use in Turkey, in a shipment of rice can cause the shipment to be rejected as there are no GE products approved for food consumption in Turkey. 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 exists in Turkey, the GOT rejects consignments if this pest is found.

According to the Turkish Statistical Institute, Turkey imported more than 66,000 MT of paddy rice from the United States in MY 2016/17, milled equivalent. Paddy rice imported from America is generally used in domestic market as consumers prefer it due to its high quality.

Turkey imported 265,181 MT of rice in MY 2016/17, milled equivalent. United States (66,429 MT), Russia (44,068 MT), Greece (42,660 MT), and Italy (32,381 MT) continue to be the main rice suppliers for Turkey. The most imported rice varieties were medium grain ones. Also some lower priced long grain varieties were imported for lower price-point consumers. The quality of imported rice differs dramatically according to origin, and retail prices reflect these differences with some varieties being triple the price of other varieties or origins.

The Middle East and countries in Africa are the most important markets for Turkish rice millers. In the first four months of MY 2017/18, exports to Syria were 5,621 MT (10,207 MT in total for MY 2016/17), Iraq were 843 MT (4,691 MT in MY 2016/17), and Italy were 1,098 MT (2,517 MT in MY 2016/17).

Table 26: Rice import; classified by process

Rice import; classified by process, MT								
	MY 2016/17				MY 2017/18* (partial year)			
Country	Rice in the Husk	Husked rice (Brown)	Semi-Wholly milled rice	Milled Basis	Rice in the Husk	Husked rice (Brown)	Semi-Wholly milled rice	Milled Basis
U.S	94,041		600	66,429	20,097		3,028	17,096
Russia	62,597		250	44,068	16,810			11,767
Portugal	9,514		50	6,710	3,076			2,153
India			22,851	22,851			8,940	8,940
Thailand			4,141	4,141			403	403
China			8,375	8,375			12,999	12,999
Brazil				0				0
Pakistan			3,729	3,729			1,230	1,230
Greece	8,312	10,965	27,192	42,660	2429	6594	9,062	16,565
Italy	205		32,237	32,381			10,541	10,541
Bulgaria		16,744	3,971	18,706	6443	6,350	4,060	14,158
Others	8,652	13	9,065	15,133	92	0	6,457	6,521
Total	183,321	27,722	112,461	265,181	48,947	12,944	56,720	102,374

*September 2017-December 2017;

Source for import data: Turkish Statistical Institute

According to exporter reports, transshipments to Middle East and North African countries are estimated at about 250,000 MT in MY 2017/18. Transshipments typically go through Mersin region and the bonded warehouses there, as well as Iskenderun Port. Mersin is also a hub for humanitarian aid going to the Middle East. While cheaper Asian-origin rice varieties were preferred by Syria and African countries, higher quality ones were demanded by Iraq and the Gulf region.

Due to the use free trade zones and bonded warehouses storage by rice traders, there are issues comparing importer and exporter data regarding Turkish rice trade. We have included the tables using Turkish Statistical Institute (TUIK) data.

Table 27: Turkish Milled Rice Foreign Trade

TURKEY: RICE FOREIGN TRADE*				
MONTH	IMPORT MY 2016/17	IMPORT MY 2017/18	EXPORT MY 2016/17	EXPORT MY 2017/18
	(MT)	(MT)	(MT)	(MT)
September	13,286	12,693	3,309	2,319
October	18,672	18,569	3,921	2,639
November	17,024	35,780	4,317	5,988
December	23,968	35,332	3,363	2,809
<i>Subtotal Sep- Dec</i>	<i>72,950</i>	<i>102,374</i>	<i>14,910</i>	<i>13,755</i>
January	16,911		4,120	
February	17,214		1,634	
March	32,045		5,685	
April	29,647		5,602	
May	32,178		16,179	
June	22,047		2,765	
July	20,707		2,420	
August	21,482		3,841	
MY TOTAL	265,181	**350,000	57,156	**50,000

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

** Forecast

Source for import data: Turkish Statistical Institute (TUIK)

STOCKS

Wheat

Post revised the wheat stock figures to 2,427,000 MT, due to revised production figures in MY 2017/18. In MY 2018/19, ending stocks forecast is expected to increase to 2,677,000 MT, up 10 percent from the prior year, assuming the increased licensed warehouses capacity will encourage private sector to increase their stocks.

TMO was very active in the wheat market after the harvest in MY 2017/18 and procured 2 MMT of wheat. TMO has also imported 336,000 MT of wheat since the harvest. As of March 2018, TMO still has 1.9 MMT of wheat held in stocks and 650,000 MT of it is durum wheat.

Barley

TMO completed the 250,000 MT barley import tenders from October and December 2017 in order to sell as a feed input until the new harvest. The private sector also plans to import barley with the new

temporary zero tariff rates. TMO and the private sector have approximately 668,000 MT of barley stocks as they enter the new harvest. In 2018/19, barley stocks are forecast at 698,000 MT, remaining similar with the year before.

Corn

Post revised stocks are at 834,000 MT due to revised decreased production and higher export figures in MY 2017/18. In MY 2018/19, stocks are also forecast at 684,000 MT, a bit lower compared to the previous year, and this is assuming that consumption and imports stay high. Also due to the uncertain economic environment in Turkey generally, the private sector may be unwilling to tie money up in stocks.

Rice

For MY 2018/19, rice stocks estimate is 131,000 MT, up 10,000 MT compared to the prior year (they were 121,000 MT in MY2017/18). This is assuming consumption remains stable and production increases as expected.

Paddy rice price differs by variety in Turkey. Despite the fact that some varieties have better yields and milling rates, prices are set according to consumer preferences. Paddy rice price increased around 15 percent compared to last year, which is above the normal increase in price due to inflation.

The Turkish Grain Board (TMO) did not announce a 2017 paddy rice procurement price due to sufficient demand by the private sector for domestic paddy rice. TMO sells Baldo milled rice variety at 5 TL/Kg, Calrose at 3.9 TL/Kg, and Luna at 3.8 TL/Kg in TMO retail stores.

Table 28: Bulk Price by Varieties in Domestic Market

Paddy Rice Varieties	February 2017	February 2018
Baldo	2400-2600 TL/Ton	2800-2900 TL/Ton
Cammeo	2100-2200 TL/Ton	2400-2500 TL/Ton
Osmancik (inc; Yatkin, Efe, Gala)	2100-2250 TL/Ton	2100-2250 TL/Ton
Ronaldo	1700-1750 TL/Ton	2000-2100 TL/Ton
Luna	1600-1650 TL/Ton	1900-1950 TL/Ton

Sources: Industry Sources

According to market sources, TMO has about 5,000 MT of rice, milled equivalent, in its stocks as of February 2018. Most locally produced rice is being kept in the private sector's stocks. Last year, due to the rice shortage, producers and traders who had high stocks were able to earn large profits. They are holding their supplies as stocks, particularly the newly harvested product, in an attempting to get higher prices in May.

Turkey has 25,000 paddy rice farms. Bandirma, Samsun, Edirne, Tekirdag and Ankara are the locations of the important commodity exchanges for rice. Turkey has more than 130 paddy rice millers with a yearly capacity of 2.8 MMT.

POLICY

The Government of Turkey (GOT) plans to grant 14.8 billion TL (\$3.89 billion) in agricultural subsidies to all agricultural producers in 2018 as part of their new agricultural budget. This is up 15 percent compared to 2017 (these figures includes subsidies to the livestock sector). The GOT granted 12.8 billion TL (\$3.55 billion) in agricultural subsidies to producers in 2017. Note that these estimates assume an exchange rate of US\$1=3.80 TL as of February 2018 and exchange rate of US\$1=3.60 TL as of February 2017, although the actual rate is variable during the year.

According to the subsidy details announced in [the Official Gazette](#) about the Cabinet Decision on Agricultural Support in 2018, the important update to 2018 subsidies is that the fuel subsidy is increased. The GOT promises to subsidize half of farmers' fuel costs in 2018. Fertilizer and soil analysis subsidies remain the same as last year, and premiums also remain the same, except there was a premium increase for some pulses and forage crops. According to Turkey's Agricultural Basin Based Support Scheme, which came into force in 2017, Turkey is divided into different agricultural basins based on climate and soil categories to subsidize specific crops for each zone. Farmers can only receive subsidies if they have planted crops which the government deems suitable for their region and has put on the basin list for their particular location.

Table 29: Agricultural Subsidies by Products in 2017-2018

Product	Fuel/Diesel (TL/ha)		Fertilizer (TL/ha)		Soil Analysis* (TL/ five ha)		Premium (TL/MT)	
	2017	2018	2017	2018	2017	2018	2017	2018
Wheat, Barley, Oat, Rye, Triticale	130	150	40	40	8	8	50	50
Cotton	360	400	40	40	8	8	800	800
Paddy Rice	360	400	40	40	8	8	100	100
Soy Bean	170	190	40	40	8	8	600	600
Canola	90	100	40	40	8	8	500	500
Aspire	110	120	40	40	8	8	550	550
Corn	170	190	40	40	8	8	30	30
Sunflower	170	190	40	40	8	8	40	40
Chick Pea, lentils, Dry	110	140	40	40	8	8	300	500

Beans								
Olive Oil	90	100	40	40	8	8	800	800
Tea	90	100	40	40	8	8	130	130
Onion, and Others	90	100	40	40	8	8	-	-
Forage crops	90	100	40	40	8	8	400-900**	400-1000**
Fallow	50	60	-	-	-	-	-	-

* Soil analysis support is 40 TL per five ha

** Premium is given according to variety per year

It is estimated that the breakdown of the total payments in 2018 will be: fuel subsidies will be 1.9 billion TL, premium subsidies will be 4 billion TL (including 1.5 Billion TL for cotton), rural development subsidies will be 1.7 billion TL, agricultural insurance payments about 1 billion TL, and livestock subsidy expenditures will be about 4 billion TL.

The GOT continues to encourage domestic certified seed and seedling usage, as they have in previous years. There are also some subsidies for certified seed producers, organic products, and good farming practices, which are similar with 2017. Farmers have to be registered in the Farmer Registration System in order to collect government subsidies. The subsidy for seed producers will be given to producers who registered in Farmer Registration System, produce and sell certified seed in Turkey and are authorized as a seed company by the government.

Table 30: Subsidies for Domestic Certified Seed Producers

Products	TL/kg	
	2017	2018
Barley, Rye, Oats	0.08	0.08
Wheat	0.10	0.10
Paddy Rice	0.25	0.25
Soybean	0.35	0.35
Sesame	0.60	0.60
Chickpea, Dry Bean, Safflower	0.50	0.50
Canola	1.20	1.20

Source: Official Gazette

Despite the fact that grain production premiums have remained the same during the last six years (see Table 32), there has been a nearly 60 percent devaluation of the Turkish Lira against the U.S. Dollar and many foreign currencies during the same period. The GOT paid about 3.3 billion TL for grain premiums in 2017, of which 675 million TL was for wheat, 120 million for corn, 70 million TL for pulses, and 70 million TL for paddy rice. The GOT also paid about 656 million TL for agricultural insurance premium in 2017 for all plant crops.

Table 31: Grain Premiums Turkey (TL/MT)

Grain Premiums Turkey: Grain Premiums (TL/MT)
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Products	2013	2014	2015	2016	2017	2018
Wheat	50	50	50	50	50	50
Barley, Oats, Rye	50	50	50	50	50	50
Paddy Rice	100	100	100	100	100	100
Chick Peas, Lentils, Dry beans	100	100	200	300	300	500
Corn	40	40	40	20	30	30

Source: Official Gazette

The feed and livestock industries are struggling with 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. The feed industry is dependent on soybean and byproduct imports, corn byproducts imports, and bran or byproducts from oilseed mills, wheat mills, and the cotton ginning industry. There is also not enough pasture development and forage crop planting in Turkey, so the government has encouraged forage crop production with additional financial support in recent years.

Table 32: Turkey Forage Crop Support

Forage crop support (TL/ha/year)						
Products	2013	2014	2015	2016	2017	2018
Alfalfa (irrigated)	500	500	500	600	600	900
Trefoil	400	400	400	450	600	900
Silage corn	750	750	750	450	900	1000

Source: Official Gazette

New licensed warehouse systems for grain storage are developing in Turkey. The GOT has supported construction of some licensed warehouses since 2005, and they plan to regulate the grain market with the help of licensed warehouses in the near future. For this purpose, the GOT gives some grants and financial support in order to encourage new investments. As of March 2017, there were 40 active licensed warehouse operations (LWO) in 24 provinces with a capacity of 1.8 MMT. There were only 19 LWO the year before. This year there have been applications for 106 new LWO investments, and the goal is to increase LWO storage capacity to 9.4 MMT in the coming years.

The GOT is still working on a well-functioning Licensed Warehousing, Warehouse Receipts System (WHR) transaction process for delivery on agricultural products and futures markets in Turkey with the help of commodity exchanges. Nine commodity exchanges are authorized for making transactions with product certificates by Turkish Ministry of Customs and Trade. Ninety seven percent of current WHR are for grain storage, the remaining amount is for cotton, olives, and hazelnuts. According to TMO, TMO procured 240,000 MT of wheat and 95,000 of corn with electronic warehouse receipts in MY 2017/18 and plans to procure grain only through licensed warehouses in 2018. For updated data on LWO, please visit the [webpage](#) of Turkish Ministry of Customs and Trade.

Market access problems as result of Turkey's 2010 biosafety law continue to disrupt trade. While some corn and soy varieties are approved for import to Turkey for animal feed, this law does not allow imports of commodities containing genetically engineered varieties (events) that have not yet been approved for use in Turkey, including at an unavoidable low level presence. See [FAS GAIN report on Biotechnology](#) for further information and detail on this policy issue.

Increasing food prices continue to be an important issue in Turkey. Food inflation is a high priority, and has been the driving force of consumer price inflation in 2017. According to Turkish Statistics, the producer price index of agricultural products (Agriculture - PPI) increased by 2.24 percent in the previous month. Compared to the same month of the previous year, it has increased by 10.26 percent, and on the twelve month moving average basis it increased by 11.23 percent in February 2018.

The GOT aims to put downward pressure domestic commodity prices with import instruments. As part of a series of measures against food inflation, the Turkish government reduced the import tariff on wheat, barley and corn from 130 percent to 45, 35, and 25 percent respectively, according to a decree published in the Official Gazette on June 28, 2017. The reference price for these commodities was also determined as \$200 per ton, according to a communique published in the Official Gazette on June 30, 2017. In reality, this reference price can be higher than the actual commodity prices, thereby increasing the tariff payments. The GOT then eliminated the import tariff on barley from 35 percent to 0 percent as of December 31, 2017 until the end of March 2018.

Table 33: Grain Tariff Rates

Turkey: Grain Tariff Rates						
Product group	Products	EU	Bosnia Herz.	South Korea	Other incl. US	Notes
Wheat	Spelt, common wheat and meslin (excl. seed)	45	0	45	45	200 USD CIF ref.price
	Durum Wheat	45	0	45	45	200 USD CIF ref price
	Common wheat, Durum wheat and meslin seed	0	0	0	0	-
Barley	Barley Seed	0	0	0	0	
	White Barley (excluding seed)	0	0		0	200 USD CIF ref price
	Malting Barley (excluding seed)	0	0	0	0	200 USD CIF ref price
Corn	Maize Seed	0	0	0	0	
	Popcorn, Unpopped, (excluding seed)	25	0	25	25	200 USD CIF ref price
	Other Corn	25	0		25	270 USD CIF ref 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	

Note: Tariff rates valid as of March 2018, but after barley rates are expected to return to 35%

Source: Turkish Ministry of Economy

Production, Supply, and Distribution

Wheat Market Begin Year	2016/2017		2017/2018		2018/2019	
	Jun 2016		Jun 2017		Jun 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Harvested	7815	7815	7800	7800	0	7615
Beginning Stocks	3118	3118	1327	1327	0	2427
Production	17250	17250	21000	19500	0	19300
MY Imports	4533	4533	5500	5500	0	4750
TY Imports	4542	4542	5500	5500	0	4750
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	24901	24901	27827	26327	0	26477
MY Exports	6174	6174	6500	6300	0	6000
TY Exports	6177	6177	6500	6300	0	6000
Feed and Residual	700	700	1200	900	0	1000
FSI Consumption	16700	16700	16700	16700	0	16800
Total Consumption	17400	17400	17900	17600	0	17800
Ending Stocks	1327	1327	3427	2427	0	2677
Total Distribution	24901	24901	27827	26327	0	26477
Yield	2.2073	2.2073	2.6923	2.5	0	2.5345
(1000 HA) ,(1000 MT) ,(MT/HA)						

Barley Market Begin Year	2016/2017		2017/2018		2018/2019	
	Jun 2016		Jun 2017		Jun 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Harvested	3400	3400	3400	3400	0	3550
Beginning Stocks	961	961	338	338	0	668
Production	4750	4750	6400	6300	0	6750
MY Imports	141	141	500	550	0	100
TY Imports	291	291	500	550	0	100
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	5852	5852	7238	7188	0	7518
MY Exports	14	14	20	20	0	20
TY Exports	14	14	20	20	0	20
Feed and Residual	4600	4600	5600	5600	0	5900
FSI Consumption	900	900	900	900	0	900
Total Consumption	5500	5500	6500	6500	0	6800

Ending Stocks	338	338	718	668	0	698
Total Distribution	5852	5852	7238	7188	0	7518
Yield	1.3971	1.3971	1.8824	1.8529	0	1.9014
(1000 HA) ,(1000 MT) ,(MT/HA)						

Corn Market Begin Year	2016/2017		2017/2018		2018/2019	
	Sep 2016		Sep 2017		Sep 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Harvested	570	570	600	550	0	530
Beginning Stocks	862	862	804	804	0	834
Production	5500	5500	6000	5400	0	5100
MY Imports	1389	1389	1500	2000	0	2300
TY Imports	1421	1421	1500	2000	0	2300
TY Imp. from U.S.	3	3	0	0	0	0
Total Supply	7751	7751	8304	8204	0	8234
MY Exports	97	97	50	100	0	100
TY Exports	100	100	50	100	0	100
Feed and Residual	5800	5800	6200	6200	0	6400
FSI Consumption	1050	1050	1070	1070	0	1050
Total Consumption	6850	6850	7270	7270	0	7450
Ending Stocks	804	804	984	834	0	684
Total Distribution	7751	7751	8304	8204	0	8234
Yield	9.6491	9.6491	10	10	0	9.6226
(1000 HA) ,(1000 MT) ,(MT/HA)						

Rice, Milled Market Begin Year	2016/2017		2017/2018		2018/2019	
	Sep 2016		Sep 2017		Sep 2018	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Harvested	98	98	99	99	0	100
Beginning Stocks	128	128	91	91	0	121
Milled Production	500	500	520	520	0	540
Rough Production	746	746	776	776	0	806
Milling Rate (.9999)	6700	6700	6700	6700	0	6700
MY Imports	300	300	350	350	0	310
TY Imports	300	300	350	350	0	310
TY Imp. from U.S.	50	50	0	0	0	0
Total Supply	928	928	961	961	0	971
MY Exports	57	57	50	50	0	50
TY Exports	60	60	50	50	0	50

Consumption and Residual	780	780	790	790	0	790
Ending Stocks	91	91	121	121	0	131
Total Distribution	928	928	961	961	0	971
Yield (Rough)	7.6122	7.6122	7.8384	7.8384	0	8.0597
(1000 HA) ,(1000 MT) ,(MT/HA)						