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## **Report Name:** Grain and Feed Annual

**Country:** Turkey

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### **Report Highlights:**

Turkey's grain sector continues to grapple with different challenges, the most recent of which are earthquake and drought. From Post's analysis, the drought's impact on MY 2023/24 grain production will be more significant than the effects from the earthquake. Notwithstanding these difficulties, corn production is expected to hit a record of 7.7 million metric tons (MMT). Total grain imports in MY 2023/24 are forecast slightly down year-to-year, with wheat accounting for the bulk of imported grain. Nearly 70 percent of the wheat Turkey imports is processed and re-exported as flour and pasta. Meantime, in order to suppress high prices, the government extended its zero tariffs on imported grains through part of the year.

## **Devastating Earthquakes Have Limited Impact on Turkey's Grain Production**

In early February, southeastern Turkey was rocked by two devastating earthquakes, leaving death and destruction in their wake. More than 50,000 people lost their lives, 3 million people were displaced, and the cost of the damage is estimated at more than \$100 billion. In response to this disaster, the government is coordinating a broad range of relief efforts, among which includes reconnecting agricultural supply chains, rebuilding farm structures, and delivering needed inputs to farmers. See earthquake map at the conclusion of the report.

While the earthquake zone, which stretches across 11 provinces, accounts for a sizeable portion of Turkey's overall agricultural production, the damage was largely localized to four provinces – Hatay, Adiyaman, Kahramanmaras, and Malatya – as well as two districts in Gaziantep. These four provinces are relatively small in terms of cereal production. According to official statistics for 2022, they collectively accounted for about 5 percent of the nation's wheat production, 4 percent of barley, and 5 percent of corn; no rice is grown in this area.

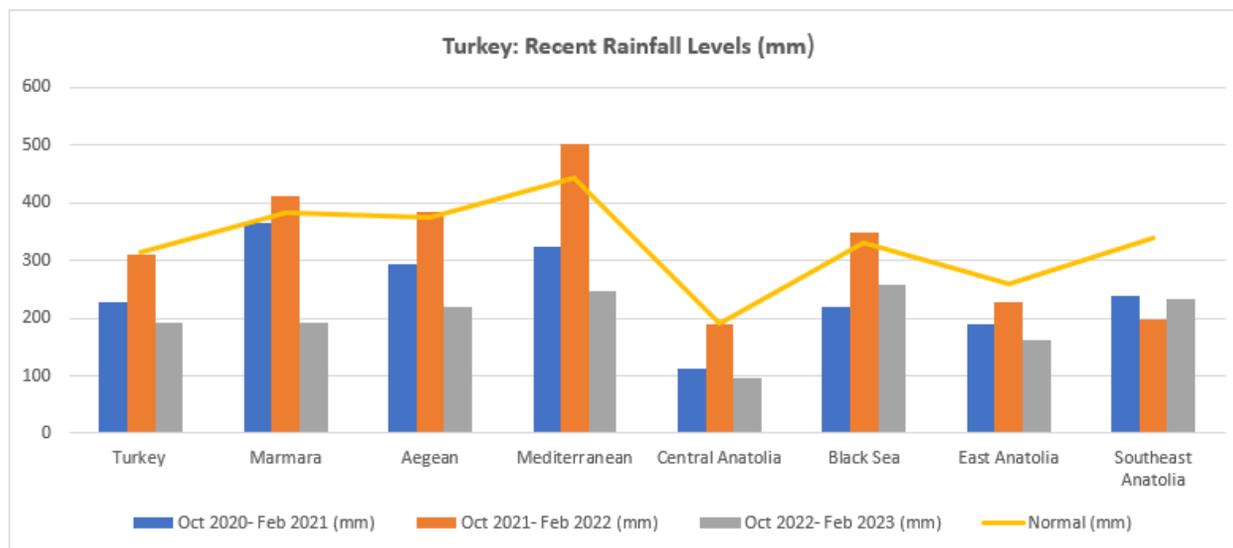
For MY 2023/24, grain production in these four provinces is projected to decline. While the exact loss in production is unknown at this time, the expected impact on Turkey's overall grain production is expected to be negligible. From Post's perspective, the bigger risk to MY 2023/24 grain production is the threat of drought.

## **Drought Poses Bigger Risk to Grain Production than Earthquake**

According to the [Turkish State Meteorological Service](#), cumulative rainfall totals from October of last year and February fell to their lowest levels in decades. In this five-month span, precipitation levels plummeted by nearly 30 percent below the historical average for this period. Furthermore, this period is drier than it was during the last drought in MY 2020/21. See table below and drought map at the end of the report.

The lack of rain is particularly concerning for both winter wheat and winter barley, most of which are unirrigated. In addition, the shortfall in precipitation has also contributed to lower water levels in reservoirs and dams in different parts of the country, which may limit the amount of water available for irrigation later in the year for rice and corn. The impact of current drought conditions has been factored into Post's current grain production estimates. Revisions will be made throughout the year, as necessary.

**Figure 1: Cumulative Rainfall Levels by Region Compared with Historical Average (mm)**



## Wheat

### Production

Wheat area harvested for MY 2023/24 is projected to increase year-to-year by 350,000 hectares (HA) to 7.15 million HA. This prediction is based on the expectation that relatively stronger domestic wheat prices will prompt farmers to plant more wheat instead of cotton and sunflowers.<sup>1</sup>

However, even with the sizeable increase in area harvested, wheat production in MY 2023/24 is forecast to remain even with the previous year at 17.25 million metric tons (MMT), of which 3.0 MMT is expected to be durum wheat. This phenomenon – a reduction in production volumes and an expansion in area harvested – is attributed to lower yields resulting from the lack of rain from last October to February. For the rest of the growing season (March-June), Post is assuming sufficient springtime rainfall and favorable weather conditions. However, if drought conditions persist, overall production levels will slide lower.

With 80 percent of the country’s wheat and barley grown under dryland farming, adequate and timely rains are critical to production. Irrigation is limited in much of the wheat-growing parts of the country, and farmers with access to irrigation generally prefer to plant crops with higher yields, such as corn and vegetables. The major wheat production areas are spread throughout the country in Central Anatolia, Southeastern Anatolia, Thrace, Marmara, and the Cukurova region.

Last summer, the Turkish Grain Board (TMO) revised its MY 2022/23 purchase price for domestic wheat to bring it closer in line with international wheat prices. TMO’s purchase price has remained the

<sup>1</sup> In parallel with expanding wheat acreage, cotton and sunflower area harvested was trimmed back because of weakening farmgate prices for these commodities. See our [latest oilseed report](#) for details.

same since that time at 6,450 TL/MT (\$391/MT) for Anatolian Hard Red Milling Wheat (AKS), which is the domestic benchmark for milling wheat and comparable to U.S. Hard Red Winter wheat. For comparison, the current market price for AKS is about 8,000 TL/MT (\$410/MT).

According to market sources, during MY 2022/23, TMO has purchased about 4.0 MMT of domestic wheat or nearly a quarter of total production. The TMO purchase price essentially sets a floor on marketplace prices and provides some level of confidence for growers.

In recent years, some farmers have stopped growing wheat, citing concerns that TMO's market interventions distort domestic prices, create uncertainty, and reduce grower profitability. In addition, growers continue to complain that the government's support payments are insufficient to cover skyrocketing inputs costs for seed, fertilizer, fuel, and labor. To help provide some relief from these higher costs, the government for two straight years has increased the payment amounts for fertilizer and diesel. Meanwhile, there is concern that some farmers may apply less fertilizer due to its high cost. However, at this moment, the overall impact on wheat yields from reduced fertilizer usage is likely to be very minor.

**Table 1: TMO's Purchase Price of Domestic Wheat**

Year	Intervention price		Date/Exchange Rate
	TL	USD	
2016	910 TL	\$303	(As of July 2016, \$1 USD = 3 TL)
2017	940 TL	\$268	(As of July 2017, \$1 USD = 3.5 TL)
2018	1050 TL	\$233	(As of May 2018, \$1 USD = 4.5 TL)
2019	1350 TL	\$228	(As of May 2019, \$1 USD = 5.9 TL)
2020	1650 TL	\$235	(As of May 2020, \$1 USD = 7 TL)
2021	2250 TL	\$268	(As of May 2021, \$1 USD = 8.4 TL)
2022	6450 TL	\$391	(As of June 2022, \$1 USD = 16.5 TL)

Source: Turkish Grain Board (TMO) [www.tmo.gov.tr](http://www.tmo.gov.tr)

**Table 2: Government Support Payments to Wheat Producers**

Year	Certified seed (TL/HA)	Production Premium (TL/MT)	Diesel and Fertilizer (TL/HA)
2016	85	50	110
2017	85	50	170
2018	85	50	190
2019	85	50	270
2020	160	100	350
2021	240	100	920
2022	500	100	1210

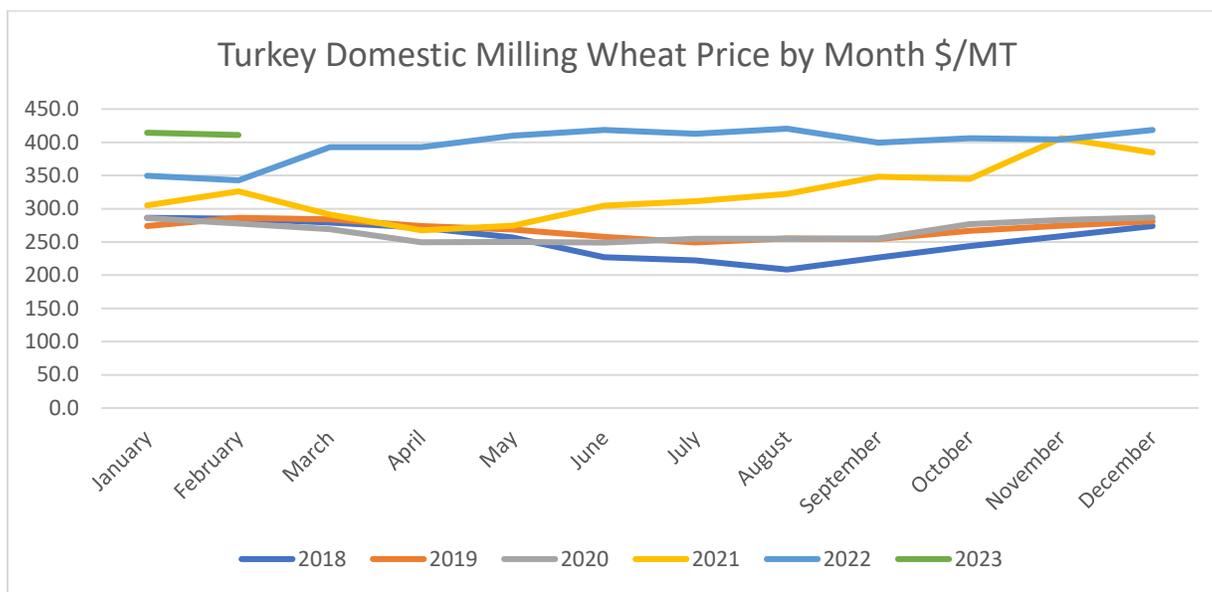
Source: <https://www.tarimorman.gov.tr/Konular/Tarimsal-Destekler/>

## Consumption

Wheat consumption for MY 2023/24 is forecast at 20.3 MMT, which is down 100,000 MT from the previous year due to lower demand for feed wheat. Overall feed demand in 2023 is expected to slacken due to smaller livestock inventories. Meantime, demand for food-grade wheat, which accounts for approximately 90 of consumption, is expected to remain steady.

Domestic wheat prices remain at their highest levels in a decade. For or March, the AKS price on the Polatli Commodity Exchange, one of the main exchanges in the country, was about 8,000 TL/MT (\$410/MT) in March, up from 5,700 TL/MT (\$393/MT) from the same month last year.

**Figure 2: Average AKS Wheat Price on the Polatli Commodity Exchange**



Source: Polatli Commodity Exchange

Turkey is considered one of, if not the largest, consumer of bread in the world on a per capita basis. Given its importance in the Turkish diet, the government subsidizes a portion of the country's bread production using imported and domestic wheat. TMO purchases imported wheat and sells it to local millers at a significant discount that is below domestic and international prices. From last summer, TMO is selling milling wheat below cost to millers for about 4,500 TL/MT (\$243/MT), which is about 30 percent lower than the domestic market price in terms of TL. The millers sell the cheap flour to private bakeries that produce and sell bread at a set price; this set price varies from region-to-region and is fixed by the local government. According to market sources, about 60 percent of the country's flour is made with wheat sourced from TMO.

However, even with this government support for wheat, the price of bread has increased over the last year because of rising labor and electricity costs to make the bread. The price of a loaf of bread (200 grams) in Ankara and Istanbul in January of this year climbed to approximately 5 Turkish Lira (\$0.25), up about 25 percent from the prior month. The current price of bread is about 2.5 higher than it was at the end of 2021.

Turkey produces more than 24 MMT of a wide range of wheat products including flour, pasta, and biscuits, etc. There are 550 active wheat milling operations with an annual capacity of about 33 MMT. According to industry sources, ten small and medium-sized wheat mills were damaged in the earthquakes. With the milling sector operating at about 55 percent capacity, the damage to these facilities is not expected to impact the country's overall production of flour. In other words, mills unaffected by the earthquakes can easily pick up the slack for those damaged facilities.

In addition to wheat mills, there are 24 active pasta factories with an annual production capacity of about 2 MMT. There are also more than 140 factories making bulgur, biscuits/cookies/crackers, and semolina.

## Trade

### Imports

MY 2023/24 imports of wheat are forecast unchanged from the previous year at 10.0 MMT, assuming steady demand for domestic use and re-export. Imports could climb higher if drought persists and depresses domestic production. Approximately 70 percent of imported wheat is processed and re-exported as flour and pasta.

The MY 2022/23 import estimate remains the same at 10.0 MMT, based on the latest available trade statistics. From June through January of the current marketing year, wheat imports reached 6.8 MMT. During this seven-month period, most of the wheat was imported from Russia (4.9 MMT) and Ukraine (1.7 MMT).

In order to stabilize domestic market conditions, TMO has contracted for at least 3.5 MMT of imported wheat in MY 2022/23, which accounts for one-third of total imports estimated for this period. In addition, to stabilize food prices, the government has zeroed out import duties on wheat through the end of April this year. In late March, TMO contracted for Black Sea wheat at roughly \$280/MT, compared to \$400/MT a year ago.

<b>Countries</b>	<b>MY 2020/21</b>	<b>MY 2021/22</b>	<b>MY 2022/23*</b>
Russia	6,369,725	6,285,214	4,857,497
Ukraine	740,072	1,982,980	1,726,497
Moldova	18,335	406,342	70,907
Brazil	0	125,565	0
Bulgaria	44,685	122,740	30,646
Romania	20	112,650	9,488
Greece	67,773	77,865	1,425
Other	891,333	259,514	124,332
<b>Total</b>	<b>8,131,943</b>	<b>9,372,870</b>	<b>6,820,792</b>

\* June 2022-January 2023

Source: Turkish Statistics Institute

### Exports

Wheat exports in MY 2023/24 are forecast to hold steady year-to-year at 7.0 MMT, assuming available supplies of imported wheat for processing and re-export as flour and pasta. This projection also assumes stable export demand in key export destinations, especially Iraq and other Middle Eastern and African markets.

For MY 2022/23, the wheat export estimate remains at 7.0 MMT, based on the latest trade numbers. Wheat exports are predominantly made up of flour, pasta, and bulgur; exports of these products are made from imported wheat per government regulation. Turkey is the world's leading flour exporter and one of the biggest exporters of pasta.

Wheat flour exports for this market year are on pace to reach estimated at 3.1 MMT (non-grain basis). From June through January of MY 2022/23, flour exports reached 2.2 million metric tons. Leading export destinations were Iraq, Syria, and Yemen. Meanwhile, industry sources report that Turkey exported about 400,000 MT of flour for humanitarian purposes in calendar year 2022.

<b>Countries</b>	<b>MY 2020/21</b>	<b>MY 2021/22</b>	<b>MY 2022/23*</b>
Iraq	1,325,053	1,313,964	882,993
Syria	211,477	330,660	246,176
Yemen	294,780	249,713	238,962
Venezuela	116,789	161,919	107,022
Angola	119,357	150,923	21,082
Other	870,124	806,023	721,735
<b>Total</b>	<b>2,937,580</b>	<b>3,013,202</b>	<b>2,217,970</b>

\* June 2022-January 2023

Source: Turkish Statistics Institute

Pasta exports for MY 2023/24 are estimated to remain largely unchanged from the previous year at 1.4 MMT (non-grain basis). From June through January of MY 2022/23, pasta exports totaled about 910,000 MT. Leading destinations were Somalia, Venezuela, and Ghana. Turkey's pasta exports have doubled in the last five years in part because Turkish pasta is relatively inexpensive compared to other sources.

<b>Countries</b>	<b>MY 2020/21</b>	<b>MY 2021/22</b>	<b>MY 2022/23*</b>
Somalia	181,947	204,336	101,114
Venezuela	194,362	167,900	151,603
Benin	83,287	110,432	64,837
Ghana	98,430	96,487	44,509
Togo	72,448	83,433	42,997
Niger	50,696	68,603	36,328
Japan	55,519	55,659	39,245

Senegal	35,934	35,593	35,217
Other	628,942	549,229	394,558
<b>Total</b>	<b>1,401,565</b>	<b>1,371,672</b>	<b>910,408</b>

\* June 2022-January 2023

Source: Turkish Statistics Institute

In MY 2023/24, bulgur exports are forecast at 280,000 MT (non-grain basis). Bulgur exports were nearly 161,000 MT from June through January of the current marketing year. Iraq (48,000 MT), Syria (18,000 MT), and Russia (11,000 MT) were the main destinations for Turkish bulgur.

### *Stocks*

Stocks for MY 2023/24 are forecast at about 2.0 MMT, based on the assumption that the government and private sector will continue to hold similar stock levels compared to previous years.

## **Barley**

### **Production**

Barley production for MY 2023/24 is forecast to fall 1.4 MMT year-to-year to 6.0 MMT, based on dry weather conditions over the winter and a reduction in the area harvested. Barley is more affected by the drought conditions than wheat because of its shorter growing season. In comparison, wheat has an extra month or two of possible spring rains prior to harvest.

Barley area harvested for MY 2023/24 is projected to decrease by 100,000 HA to 3.7 million HA as farmers shift to other row crops, such as wheat and onions that offer potentially higher profit margins.

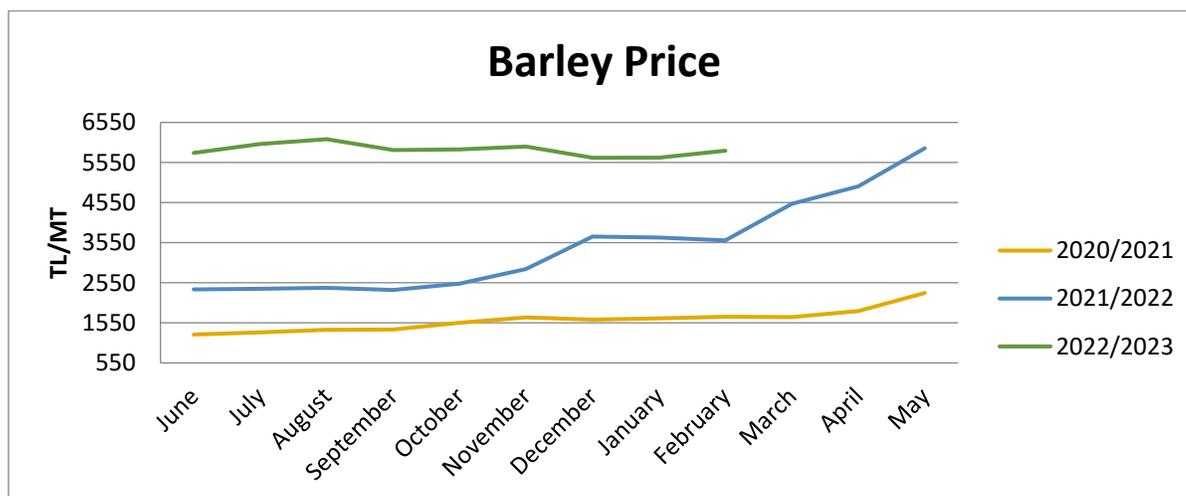
### **Consumption**

Barley consumption in MY 2023/24 is projected at 7.6 MMT, down 900,000 MT from the previous year due to lower domestic production and falling feed demand. Meantime, demand for malting barley is forecast to hold steady.

The MY 2022/23 barley consumption estimate is projected at 8.5 MMT, up year-over-year due to larger-than-expected import volumes by TMO. TMO purchased most of the imported barley and sold it at a discount to stabilize livestock feed prices. In October of last year, TMO announced it would continue selling barley at around 5,250 TL/MT (\$283/MT), which is slightly lower than the domestic market price in terms of Turkish Lira. By comparison, the price of barley on the Polatli Commodity Exchange in March 2023 was 5,500 TL/MT (~\$288/MT).

Feed manufacturers and, to a lesser extent, the malting and beer industries are the leading end users of barley. Feed use accounts for about 90 percent of total barley consumption and is predominantly used in ruminant feed rations. Depending on the price and availability of barley, feed makers may decide to switch to alternative ingredients such as wheat bran. Malting barley consumption, which has held steady in recent years, is estimated around 900,000 MT.

**Figure 3: Average Barley Price on Polatli Commodity Exchange (TL/MT)**



Source: Polatli Commodity Exchange

## Trade

### Imports

For MY 2023/24, barley imports are projected at 1.8 MMT, up by 200,000 from the previous year to compensate for the forecasted decline in domestic barley production. This forecast assumes Turkey can continue sourcing imported barley at a competitive price from Black Sea suppliers. Otherwise, compound feed manufacturers will switch to alternative ingredients in their animal feed rations.

The barley import estimate for MY 2022/23 remains at 1.6 MMT. Of this amount, TMO purchases are expected to account for about 1.4 MMT or about 85 percent of the total. Imports from June through January of the current marketing year reached 950,000 MT. The leading suppliers were Russia (510,000 MT) and Ukraine (325,000 MT). In March, TMO purchased Black Sea barley for about \$280/MT. The duty on imported barley remains at zero until the end of April.

**Table 6: Turkish Barley Imports by Origin**

Countries	MY 2020/21	MY 2021/22	MY 2022/23*
Russia	275,765	1,159,360	510,739
Ukraine	11,952	1,086,063	325,146
Romania	18,010	264,860	17,034
France	24,686	116,378	35,259
Other	375,338	240,728	62,170
<b>Total</b>	<b>705,751</b>	<b>2,867,389</b>	<b>950,348</b>

\* June 2022-January 2023

Source: Turkish Statistics Institute

### *Exports*

In MY 2023/24, barley exports are forecast unchanged year-to-year at 300,000 MT, assuming continued demand from neighboring countries. Nearly all barley exports are transshipments.

The barley export estimate for MY 2022/23 is adjusted higher to 300,000 MT, based on the latest available trade data. From June through January of the current marketing year, exports climbed year-to-year to 192,000 MT. Major export destinations were Syria (102,000 MT) and Iraq (85,000MT).

### **Stocks**

With the projected drop in domestic barley production in MY 2023/24, barley stocks for this period are forecast to fall to 416,000 MT.

## **Corn**

### **Production**

In MY 2023/24, corn production is forecast to increase year-over-year by 900,000 MT to a record 7.7 MMT. This projected increase in production is linked to a sizeable expansion in area harvested as farmers are expected to switch away from growing cotton to planting corn. Growing corn is considered more financially attractive amid weak cotton prices resulting from a global slowdown in cotton demand. Considering these market conditions, some farmers in the southeastern part of Turkey, where about half of the country's cotton is grown, are expected to switch from cotton to double-cropping wheat and corn.

For the corn growing season, Post is currently assuming sufficient springtime rainfall, favorable weather conditions, and sufficient volumes of irrigation water. However, if drought conditions persist, the amount of irrigation water might become limited which could depress yields and production levels.

Planting of the MY2023/24 crop is currently underway. The primary corn-growing regions are Central Anatolia, Southeast Anatolia, Cukurova, and the Aegean.

### **Consumption**

MY 2023/24 corn consumption is forecast at 9.2 MMT, up year-to-year by 300,000 MT. This projected increase is based on strong demand for corn to make compound feed and starch. In particular, compound feed manufacturers are expected to increase their utilization of feed corn because it is expected to be more price competitive compared to barley.

The MY 2022/23 corn consumption estimate is revised higher to 8.9 MMT, an increase of 400,000 MT over the USDA official estimate. The main reason for this upward revision is higher-than-expected import volumes.

Corn is primarily used in manufacturing feed and, to a lesser extent, producing corn starch for food use. With nearly 85 percent of corn used to make animal feed, overall consumption typically parallels trends in the feed sector. At the same time, feed corn consumption is influenced by prices of alternative feed ingredients.

Corn starch-based sugar production is regulated by the government through production quotas; beet sugar production is likewise regulated through quotas. The government announces annual starch

production quotas which are expected to decrease in size this year. Starch producers use about 900,000 MT of domestic corn each year. The starch industry's annual production capacity is 1.5 MMT.

In March, the domestic corn price was about at 5,250 TL/MT (~\$275/MT), up about 15 percent in terms of Turkish Lira from a year ago. TMO is currently selling feed [corn](#) between 5,000-5,500 TL/MT (\$263-290/MT). Domestic corn prices have stayed fairly flat during the current marketing year.

## **Trade**

### *Imports*

MY 2023/24 corn imports are forecast to decrease year-over-year by 400,000 MT to 2.1 MMT. The projected decrease is largely based on the anticipated increase in domestic corn production.

The MY 2022/23 corn import forecast is adjusted higher to 2.5 MMT, an increase of 400,000 MT from the USDA official figure. This revision is based on stronger-than-expected corn demand and the latest import numbers. Corn imports from September through January of the current marketing year reached 925,000 MT. The main suppliers of corn during this period were Ukraine (481,000 MT), Russia (254,000 MT), and Romania (48,000 MT).

### *Exports*

Corn exports in MY 2023/24 are forecast unchanged from the previous year at 600,000 MT, assuming steady transshipment demand from neighboring countries. A large percentage of exported corn is transshipments.

For September through January of MY 2022/23, corn exports reached 190,000 MT. Major export destinations were Iraq (136,000 MT), Cyprus (21,000 MT), and Syria (10,000 MT). In the first five months of this marketing year, 180,000 MT of corn was transshipped to neighboring countries from bonded warehouses.

## **Stocks**

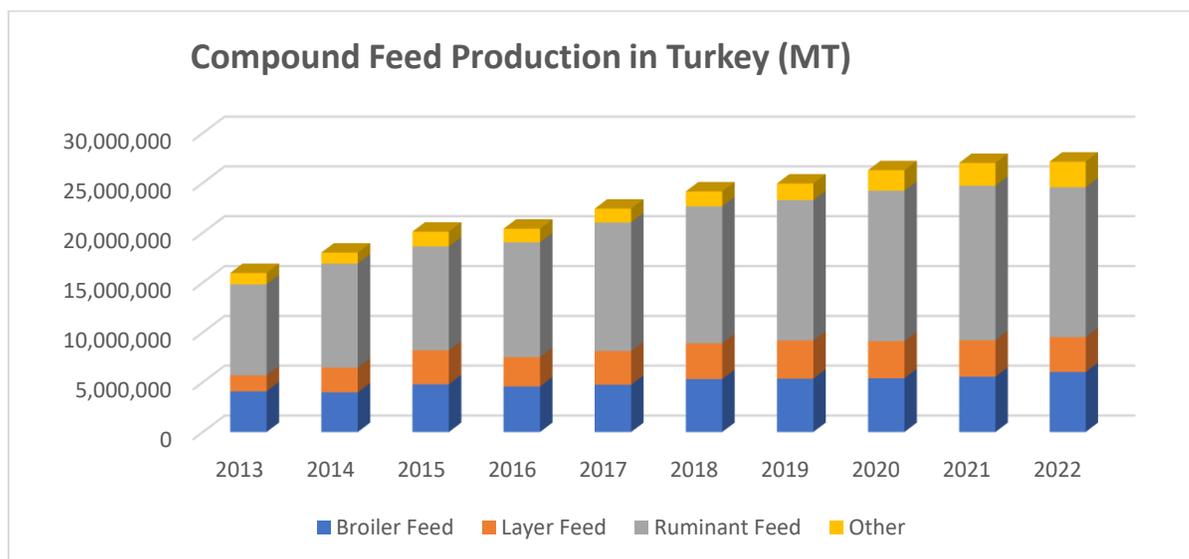
For MY 2023/24, corn stocks are forecast unchanged from the previous year at 512,000 MT.

## **Animal Feed Production**

In calendar year 2022, compound feed production remained almost unchanged from the previous year at about 27.0 MMT. This amount is made up of ruminant, broiler, layer, and other feeds. Looking ahead to 2023, the demand for animal feed is expected to soften due to various factors, including smaller livestock inventories, the economic fallout from the earthquake, and the difficult economic situation. For now, though, it's too early to predict the extent of the expected slowdown in feed demand.

The Turkish feed sector depends on imported raw materials, such as grains and meals derived from imported oilseeds. Given this dependence, the price of feed tends to move in parallel with the FOB price of the raw materials and the USD-Turkish Lira exchange rate. Over the last several years, due to rising international commodity prices, the average price for feed has skyrocketed and currently stands about five times higher in terms of Turkish Lira. The rising costs for labor and energy has also contributed to higher feed prices.

**Figure 4: Compound Feed Production in Turkey (MT)**



Source: Ministry of Agriculture and Forestry

	Jan-20	Jan-21	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23
Broiler Feed	2,255	3,600	10,755	10,760	10,860	10,845	11,000	10,955	11,140	11,600
Layer Feed	1,890	2,570	7,930	7,920	7,775	7,715	7,875	7,985	8,030	8,400
Dairy Cattle Feed	1,460	2,240	6,275	5,920	6,015	6,010	6,300	6,400	6,335	6,700
Beef Cattle Feed	1,360	2,050	5,690	5,400	5,565	5,550	5,850	5,950	5,865	6,210

Source: Industry contacts

## Rice

### Production

The MY 2023/24 rice production forecast is cut back to 535,000 MT, which is down 65,000 MT year-to-year. This decline in production is linked to an expected reduction in area harvested as farmers pullback on planting because of fears over water shortages. The Marmara region, which is located on the western and northwestern side of the country and accounts for the bulk of the nation's rice production, is suffering from some of the worst drought conditions in the country.

TMO buys domestic rice and other grains to stabilize market conditions. Last September, TMO announced its [procurement price](#) for domestic paddy rice at 13,500-16,000 TL/MT (\$750-\$888/MT). The procurement price varies within this range based on the type of rice.

Imported rice from Southeast Asia, which sells for one-third the price of Turkish rice, is making it tough for local growers to compete. To improve their competitiveness, domestic producers are upgrading their

operations to lower production costs. At the same time, growers are experimenting with new rice varieties to improve yields and meet the taste of local consumers. However, according to market sources, some growers faced difficulties marketing these new varieties since the public was unfamiliar with them.

Turkey's rice growing areas are spread throughout the country, with more than 25,000 rice farms. The Marmara region accounts for about 70 percent of total rice production, while Central Anatolia in the middle part of the country and provinces along the Black Sea account for nearly one-quarter of production. Commodity exchanges for rice are located in these major growing areas. There are 130 rice millers in the country with an annual milling capacity of 2.8 MMT.

### **Consumption**

The consumption of rice in MY 2023/24 is projected to decrease slightly from the previous year to 770,000 MT. This reduction, albeit minor, is based on the assumption of tighter rice supplies due to the decline in domestic rice production and lower import volumes. Consumption could contract even further given price uncertainties when the zero-import tariff on rice stops at the end of August.

Demand for rice is driven by local consumers as well as the increasing number of tourists who frequently dine out. However, increased tourist demand for rice is offset by sluggish household demand as some price conscious consumers are substituting away from rice to less expensive alternatives like bulgur pilaf. Meantime, to lower their retail prices for packaged rice, some rice companies are blending lower-priced imported rice with domestic varieties.

Turkish households prefer to eat the well-known medium grain varieties such as Baldo, Osmancik, and Calrose. However, this year, other imported varieties from China and Southeast Asia have reportedly invaded store shelves and are selling for one-third the price of local rice. There is concern that the cheaper imported rice could displace domestic rice in the future.

TMO sells both imported and domestic rice through its retail outlets at normal market prices. The current retail price for Type A milled rice (Baldo, Cammeo, Fortuna, Yerua, Perla) is 25TL/kg (\$1.30/kg). Type B varieties (Groski, Luna, Ronaldo, Osmancik) are selling between 18TL-23TL (\$0.9/kg - \$1.2/kg). TMO also occasionally sells rice through other channels to end users.

### **Trade**

#### *Imports*

For MY 2023/24, rice imports are forecast at 370,000 MT, down 120,000 MT compared to the previous year. This drop in import volumes assumes that importers will build up larger-than-usual carryover stocks before the zero-import duty on rice expires at the end of August.

The MY 2022/23 rice import estimate is revised higher to 500,000 MT, based on the latest trade numbers and assuming an uptick in import demand before the zero tariff ends. Current import demand is strong because of the zero tariff and the availability of cheap rice, especially from Southeast Asia. In the first five months of MY 2022/23 (Sep-Jan), Turkey imported about 280,000 MT of rice, most of which was milled rice and more than three times the amount from the same period the previous year. The major sources of imported rice were China (114,000 MT), India (77,000 MT), Thailand (34,000 MT)

and the Vietnam (22,000 MT). According to market sources, TMO has imported about 18,000 MT of milled rice in MY 2022/23.

Turkey mostly imports medium grain rice as well as smaller volumes of long grain rice. Retail prices for imported rice vary widely based on the variety and origin of the rice. Lower-priced, long grain varieties are increasingly attractive to price conscious consumers and budget restaurants. The higher-quality, more expensive rice varieties are mostly used in upscale restaurants or sold through high-end retail supermarkets.

### *Exports*

For MY 2023/24, rice exports are forecast slightly down at 220,000 MT, assuming steady transshipment demand. Rice exports are mostly made up of transshipments.

The MY 2022/23 rice export estimate is held constant at 230,000 MT. In the first five months of MY 2022/23 (Sep-Jan), Turkey exported about 84,000 MT of rice. The main export destinations were Syria (25,000 MT), Ukraine (15,000 MT), Iraq (6,600 MT).

### **Stocks**

In MY 2023/24, rice stocks are forecast lower at 108,000 MT, which is in line with historical amounts. Meantime, the rice stock estimate for MY 2022/23 is revised higher to 193,000 MT, up 50,000 MT from the prior year. This upward revision assumes that traders will build up carryover stocks until the end of August when the zero-tariff on imported rice expires. Traders may also hold onto more stocks than usual in anticipation of lower domestic rice production volumes in MY 2023/24.

## **Policy**

Under its “agricultural basin” program, the government provides support payments to farmers growing strategic crops in certain geographical areas. Among the 21 strategic crops are wheat, barley, rice, and corn. In an announcement in [\*the Official Gazette\*](#) last November, the government announced that it planned to provide 54.0 billion TL in total support during calendar year 2023, up from 40.0 billion TL the previous year.

As part of the “agricultural basin” support program, the government provides two kinds of payments to grain producers – a production premium and a payment to offset input costs. The intent of these payments is to help incentivize production and compensate farmers for rising input costs. The grain production premium payment has remained unchanged for the last several years. In contrast, the payment to counterbalance the rising price of inputs, such as fertilizer, and fuel, has increased because of significant inflation in recent years.

However, farmers continue to complain that input payments are insufficient to cover their rising on-farm operational costs. Meantime, there have been questions for the last couple years about the extent to which some smaller-sized farmers have reduced their fertilizer usage to save on costs. While no official estimate exists, the overall effect of decreased usage on Turkey’s overall grain production appears to be negligible.

Commodity	2017	2018	2019	2020	2021	2022
Wheat	50	50	100	100	100	100
Barley, Oats, Rye	50	50	50	100	100	100
Paddy Rice	100	100	100	100	100	100
Chickpeas, Lentils, Dry beans	300	500	500	500	500	500
Corn	30	30	30	30	30	30

Source: Official Gazette

Commodity	Diesel (TL/ha)	Fertilizer (TL/ha)
Wheat, Barley, Rye, Oats	750	460
Rice, Cotton	2500	210
Pulses	750	210
Corn	620	210
Soybean	300	210
Sunflower	880	210
Canola, safflower	880	210
Forage Plants	940	210

Source: <https://www.tarimorman.gov.tr/Konular/Tarimsal-Destekler/>

As a complement to these support payments, TMO on behalf of the government purchases domestic grain at a set price to stabilize local prices and supplies. TMO generally purchases local grain at or near market prices, which affords farmers some level of price stability. In MY 2022/23, TMO is expected to purchase more than 5.0 MMT of domestic grain, of which is 4.0 MMT of wheat and about 1.0 MMT of barley.

Besides domestic purchases, TMO also purchases significant volumes of grain through international tenders. According to market sources, TMO is expected to import about 5.0 MMT grain in MY 2022/23. This amount is made up of 3.5 MMT of milling wheat, 1.4 MMT of barley, and 18,000 MT of rice. In addition, according to market rumors, TMO directly procured (without conducting an international tender) more than 1.0 MMT of milling wheat from Russia's United Grain Company (OZK). Last June, the government [authorized](#) TMO to make direct purchases from foreign state trading organizations to streamline transactions and reduce costs.

TMO sells both domestic and imported grains to stabilize market conditions and limit inflationary pressures. At present, TMO sells wheat and barley at a significant discount, while sales of corn and rice are closer to market prices.

Turkey has battled record inflation in recent years. In response, President Erdogan launched a long-term strategy to regulate flour and feed prices in 2021. TMO's discounted sales of milling wheat and feed

barley are at the heart of this strategy. At the same time, the government has instituted various measures to curb inflation, including price controls, export restrictions (now lifted), zero duties on major food commodities, and a lower value added tax (VAT) on food.

At the end of December, the government announced that it was extending the zero-duty for imports of wheat, barley, corn, and rice for part of 2023. See table below for specific details. The government will continue to monitor the price and availability of these grains throughout the year to determine whether additional tariff cuts are warranted.

In March of this year, perhaps in part due to concerns from other WTO members, the government [repealed](#) its export restrictions on certain domestically produced agricultural products. However, later the same month, the Turkish Ministry of Trade published an updated [communiqué](#) to require pre-export registration for some of the same agricultural products formerly subject to export restrictions. Among the [list of products](#) currently requiring advance registration are domestic wheat, barley, and corn; transshipments are excluded from this requirement. The purpose of the registration requirement is to monitor and regulate the flow of exports to ensure sufficient domestic supplies.

<b>Table 10: Zero Duties on Imports Certain Grains &amp; Pulses for 2023</b>			
<b>HS Code</b>	<b>Description</b>	<b>Zero Duty Effective Period</b>	<b>MFN Rate</b>
07132000019	chickpeas	Jan-Jun	19.3
07133100019	beans of the species vigna mungo	Jan-Jun	19.3
07133200019	small red (adzuki) beans	Jan-Jun	19.3
07133300019	kidney beans, including white pea beans	Jan-Jun	19.3
07133400019	bambara beans	Jan-Jun	19.3
07135300019	cowpeas	Jan-Jun	19.3
07134000012	Green lentil	Jan-Jun	19.3
07134000013	Red lentil	Jan-Jun	19.3
100119	durum wheat	Jan-Apr	45
100199	milling wheat	Jan-Apr	45
100290	rye	Jan-Apr	130
100390	barley	Jan-Apr	35
100490	oats	Jan-Apr	130
100590	corn	Jan-Apr	25
100610	Rice in the husk (paddy)	Jan-Aug	34
100620	Rice, brown	Jan-Aug	36
100630	Rice, milled	Jan-Aug	45

## Production, Supply and Distribution

Wheat Market Year Begins	2021/2022		2022/2023		2023/2024	
	Jun 2021		Jun 2022		Jun 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Harvested (1000 HA)	7050	7050	6800	6800	0	7150
Beginning Stocks (1000 MT)	3730	3730	2237	2237	0	2087
Production (1000 MT)	16000	16000	17250	17250	0	17250
MY Imports (1000 MT)	9421	9421	10000	10000	0	10000
TY Imports (1000 MT)	9555	9555	10000	10000	0	10000
Total Supply (1000 MT)	29151	29151	29487	29487	0	29337
MY Exports (1000 MT)	6714	6714	7000	7000	0	7000
TY Exports (1000 MT)	6646	6646	7000	7000	0	7000
Feed and Residual (1000 MT)	1400	1400	1500	1500	0	1400
FSI Consumption (1000 MT)	18800	18800	18900	18900	0	18900
Total Consumption (1000 MT)	20200	20200	20400	20400	0	20300
Ending Stocks (1000 MT)	2237	2237	2087	2087	0	2037
Total Distribution (1000 MT)	29151	29151	29487	29487	0	29337
Yield (MT/HA)	2.2695	2.2695	2.5368	2.5368	0	2.4126

(1000 HA) ,(1000 MT) ,(MT/HA)

MY = Marketing Year, begins with the month listed at the top of each column

TY = Trade Year, which for Wheat begins in July for all countries. TY 2023/2024 = July 2023 - June 2024

Barley Market Year Begins	2021/2022		2022/2023		2023/2024	
	Jun 2021		Jun 2022		Jun 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Turkey						
Area Harvested (1000 HA)	3700	3700	3800	3800	0	3700
Beginning Stocks (1000 MT)	522	522	316	316	0	516
Production (1000 MT)	4500	4500	7400	7400	0	6000
MY Imports (1000 MT)	2867	2867	1600	1600	0	1800
TY Imports (1000 MT)	2036	2100	1600	1600	0	1800
Total Supply (1000 MT)	7889	7889	9316	9316	0	8316
MY Exports (1000 MT)	173	173	300	300	0	300
TY Exports (1000 MT)	215	135	150	200	0	300
Feed and Residual (1000 MT)	6500	6500	7600	7600	0	6700
FSI Consumption (1000 MT)	900	900	900	900	0	900
Total Consumption (1000 MT)	7400	7400	8500	8500	0	7600
Ending Stocks (1000 MT)	316	316	516	516	0	416
Total Distribution (1000 MT)	7889	7889	9316	9316	0	8316
Yield (MT/HA)	1.2162	1.2162	1.9474	1.9474	0	1.6216

(1000 HA) ,(1000 MT) ,(MT/HA)

MY = Marketing Year, begins with the month listed at the top of each column

TY = Trade Year, which for Barley begins in October for all countries. TY 2023/2024 = October 2023 - September 2024

Corn Market Year Begins Turkey	2021/2022		2022/2023		2023/2024	
	Sep 2021		Sep 2022		Sep 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	540	540	530	530	0	640
Beginning Stocks (1000 MT)	889	889	712	712	0	512
Production (1000 MT)	6500	6500	6800	6800	0	7700
MY Imports (1000 MT)	3515	3515	2100	2500	0	2100
TY Imports (1000 MT)	3784	3784	2100	2500	0	2100
Total Supply (1000 MT)	10904	10904	9612	10012	0	10312
MY Exports (1000 MT)	492	492	600	600	0	600
TY Exports (1000 MT)	514	514	600	600	0	600
Feed and Residual (1000 MT)	8500	8500	7400	7800	0	8000
FSI Consumption (1000 MT)	1200	1200	1100	1100	0	1200
Total Consumption (1000 MT)	9700	9700	8500	8900	0	9200
Ending Stocks (1000 MT)	712	712	512	512	0	512
Total Distribution (1000 MT)	10904	10904	9612	10012	0	10312
Yield (MT/HA)	12.037	12.037	12.8302	12.8302	0	12.0313

(1000 HA) ,(1000 MT) ,(MT/HA)

MY = Marketing Year, begins with the month listed at the top of each column

TY = Trade Year, which for Corn begins in October for all countries. TY 2023/2024 = October 2023 - September 2024

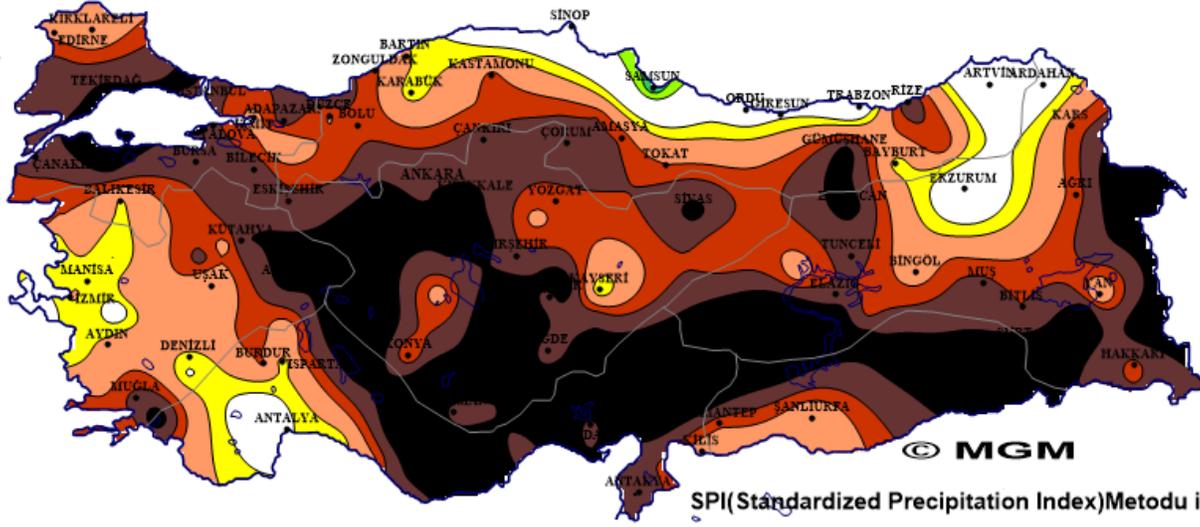
Rice, Milled Market Year Begins Turkey	2021/2022		2022/2023		2023/2024	
	Sep 2021		Sep 2022		Sep 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	97	97	99	99	0	95
Beginning Stocks (1000 MT)	282	282	103	103	0	193
Milled Production (1000 MT)	541	541	600	600	0	535
Rough Production (1000 MT)	807	807	896	896	0	799
Milling Rate (.9999) (1000 MT)	6700	6700	6700	6700	0	6700
MY Imports (1000 MT)	302	302	450	500	0	370
TY Imports (1000 MT)	478	478	450	500	0	370
Total Supply (1000 MT)	1125	1125	1153	1203	0	1098
MY Exports (1000 MT)	257	257	230	230	0	220
TY Exports (1000 MT)	227	250	230	230	0	220
Consumption and Residual (1000 MT)	765	765	780	780	0	770
Ending Stocks (1000 MT)	103	103	143	193	0	108
Total Distribution (1000 MT)	1125	1125	1153	1203	0	1098
Yield (Rough) (MT/HA)	8.3196	8.3196	9.0505	9.0505	0	8.4105

(1000 HA) ,(1000 MT) ,(MT/HA)

MY = Marketing Year, begins with the month listed at the top of each column

TY = Trade Year, which for Rice, Milled begins in January for all countries. TY 2023/2024 = January 2024 - December 2024

## Standardized Precipitation Index Draught Map for Dec 2022 – Feb 2023 (3 MONTHS)



SPI(Standardized Precipitation Index)Metodu ile  
Meteorolojik Kuraklık Haritası  
3 Aylık (Aralık 2022-Şubat 2023)  
Hazırlanış Tarihi: Mart 2023

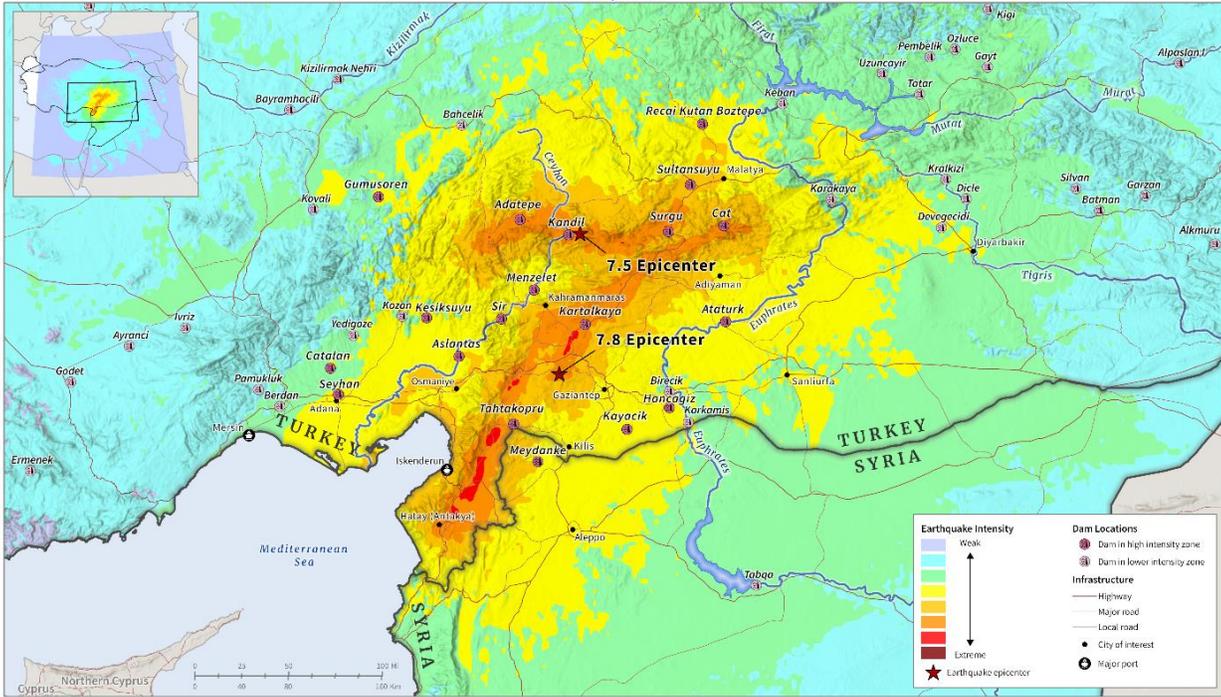
\* Bu veriler kalite kontrolden geçmemiştir.



Source: [Turkish State Meteorological Service](https://www.mgm.gov.tr/)

# Earthquake Intensity in Turkey and Syria

February 6, 2023



USDA Foreign Agricultural Service  
U.S. DEPARTMENT OF AGRICULTURE

Sources: NASA, Global Reservoir and Dam Database (GRaND);  
USGS, Earthquake Hazards Program; Esri Living Atlas; FAS-Ankara

**Attachments:**

No Attachments