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## **Saudi Arabia**

### **Grain and Feed Annual**

**2017**

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**Report Highlights:**

Saudi MY 2017/18 wheat imports are projected at 3.7 million MT, an increase of about 6 percent compared to this marketing year. Saudi barley imports in MY 2017/2018 are projected at approximately 7.6 million MT, a sharp decline compared to 11.2 million MT imported in MY 2015/16. In MY 2015/16, the U.S. maintained its dominance of the Saudi corn market for the third consecutive year by exporting more than 1.5 million MT, or 43 percent, of total Saudi corn imports. Corn imports are projected at 4.3 million MT in MY 2017/18, an increase of 20 percent over MY 2015/16. Projected MY 2017/18 Saudi rice imports are 5 percent higher than the MY 2016/17 estimate, at 1.39 million MT.

## **Wheat**

### **Production:**

Saudi Arabia ended its domestic wheat production and purchase programs in MY 2015/16. However, some small farmers continue to produce small quantities of wheat for use in producing traditional bakery products. According to local agricultural experts, total annual wheat production for MY 2016/17 is not expected to exceed 10,000 MT.

### **Consumption:**

Total Saudi wheat consumption in MY2015/16 is estimated at 3.375 million MT based on data provided by the Saudi Arabia Grains Organization (SAGO). This is 3.6 percent lower than USDA's official estimate. Official data issued by SAGO shows that the Kingdom consumed 2.7 million MT of wheat flour in MY2015/2016. Total wheat consumption is projected to increase by more than five percent in MY2016/17. The Mecca Al-Mukarama region is the largest consumer of wheat flour in the Kingdom. According to SAGO, the region accounted for about 900,000 MT (or 34 percent) of the total wheat flour consumed in the country last year - partly due to the influx of large numbers of pilgrims who came to perform *hajj* and *umrah* rituals, which are performed for a few days at fixed dates annually. Last year about two million Muslims came to perform *hajj*; *umrah* rituals are performed throughout the year and about eight million pilgrims visited the Mecca Al-Mukarama region in 2016.

The government is working to increase the number of religious tourists coming to perform *umrah* from eight million in 2016 to 15 million by 2020, and 30 million by 2030 as part of its "Vision 2030" economic reform program. The plan targets pilgrims coming to perform *umrah* as a major economic contributor, and the forecasted surge in pilgrims is expected to increase the demand for wheat flour and other food products in the next few years.

Wheat is mostly consumed in the form of flat (pita) bread or local hamburger buns known as 'Samoli' and other western-style bread such as French baguettes and pizza. The average per capita consumption of wheat in Saudi Arabia is currently estimated at about 239 grams per day, or about 87 kg annually.

White flour constitutes the bulk of wheat flour consumed in Saudi Arabia. In recent years, however, there has been a small but growing demand for whole wheat flour due to its perceived health benefits - particularly by health conscious consumers and those with health conditions such as diabetes and obesity. It should be noted that Saudi Arabia has one of the high diabetic and obesity rates in the world. SAGO, the exclusive wheat flour miller in Saudi, has increased its whole wheat production in recent years to meet the growing demand.

ARASCO, the dominant Saudi animal feed processor imported 60,000 MT feed wheat from Ukraine in MY2016/17, increasing total feed and residual use to 115,000 MT in MY2016/17. The company indicated that it imported about 50,000 MT feed wheat in MY2014/15.

### **Trade:**

SAGO is the exclusive importer of food grade wheat in Saudi Arabia. The organization imports mainly hard wheat directly through public tenders open to registered international exporters. It does not buy through grain brokers. SAGO purchases wheat from a wide range of origins: including the EU, North America, South America and Australia. The organization imports wheat through two main ports, the Jeddah Islamic Seaport on the Red Sea and the Dammam King Abdul Aziz Seaport on the Arabian Gulf. SAGO has been making plans to increase the number of Saudi seaports that can receive imported wheat to five in the next few years by adding three smaller seaports in Diba, Jazan and Yanbu (all located on the Red Sea).

SAGO issued six international wheat import tenders in MY2016/17 to import a total of about 3.5 million MT by the end of June 30, 2017, an increase of 21 percent compared to a year earlier. There are 24 international wheat exporters that are approved and registered with SAGO to participate in its periodic wheat import tenders.

Wheat Shipment Arrival Date	Minimum Protein Content	Quantity in MT	Purchase Price Per MT	Origin Options
May - June 2017	12.5 %	555,000	\$220.49	EU, Australia, North and South America
Feb. - Apr.2017	12.5 %	725,000	\$208.52	EU, Australia, North and South America
Dec.2016 - Jan.2017	12.5 %	610,000	\$210.57	EU, Australia, North and South America
Oct. - Nov.2016	12.5 %	640,000	\$214.90	EU, Australia, North and South America
Sep. 2016	12.5 %	315,000	\$205.43	EU, Australia, North and South America
Jul. - Aug.2016	12.5 %	620,000	\$214.89	EU, Australia, North and South America
<b>Total MY2016/17 imports</b>	<b>3,465,000 metric tons</b>			

Source: SAGO

Trade data from wheat supplying countries shows that for the first five months of MY2016/17 (July-Nov 2016) that Saudi Arabia imported a total of 1,688,376 MT, an increase of about 52 percent, compared to 1,112,152 MT imported in the same period of the previous year. There are two reasons for the huge increase in Saudi wheat imports in the first five months of this marketing year: (1) a return to normal after imports were lower in MY 2015/16 due to the purchase of more than 700,000 MT of domestic wheat - produced in MY 2014/15 at the start of MY 2015/16; and (2) rising domestic demand in line with population growth. Post estimates total Saudi wheat imports for MY 2016/17 at 3.5 million MT, consistent with USDA's official estimate. Wheat imports in MY 2017/18 are projected to increase by about six percent to 3.7 million MT due to increasing local demand.

In the first five months of MY2016/17, Poland was the top exporter of wheat to Saudi Arabia with 650,319 MT, accounting for 38.5 percent of the total Saudi wheat imports. Polish wheat exports to the Kingdom increased more than nine-fold in the first six months of this MY, compared to its exports in the same period of MY2015/16. Germany was the second-largest exporter with 26.5 percent, and Lithuania was the third-largest supplier with 19.5 percent.

Supplying Country	July 2014-Nov 2015	Market Share	July 2016-Nov 2016	Market Share
Poland	62,997	5.7%	650,319	38.5%
Germany	193,782	17.4%	447,666	26.5%
Lithuania	601,307	54.1%	328,750	19.5%
Latvia	186,572	16.8%	131,249	7.8%
Australia	4,493	0.4%	2,142	0.1%
Canada	63,001	5.7%	68,250	4.0%
Ukraine	0	0.0%	60,000	3.6%
<b>Total</b>	<b>1,112,152</b>	<b>100%</b>	<b>1,688,376</b>	<b>100%</b>

Source: Global Trade Atlas

Saudi Arabia imported about 2.86 MMT of milling wheat in MY2015/16, a decrease of about 17 percent compared to imports in MY2014/15. As stated earlier, SAGO purchased more than 700,000 MT of locally produced MY 2014/15 wheat at the beginning of MY2015/16. This was the main reason for the significant decrease in wheat imports in MY2015/16.

In MY2015/16, Lithuania was the leading wheat supplier to Saudi Arabia, with 34.2 percent of the market. And exports that increased three-fold. Poland was the second-largest supplier with 24.7 percent, followed closely by Germany with 24.6 percent. Poland and Germany registered declines of 27.4 percent and 28.3 percent, respectively in MY2015/16 compared to a year earlier.

#### Saudi Wheat Imports in MY2014/15 and MY2015/16 by Country of Origin

Supplying Country	July 2014-June 2015	Market Share	July 2015-June 2016	Market Share
Lithuania	246,594	7.2%	978,056	34.2%
Poland	973,759	28.4%	706,863	24.7%
Germany	980,814	28.6%	702,806	24.6%
Latvia	0	0.0%	363,072	12.7%
Canada	690,811	20.2%	63,001	2.2%
Netherlands	198,570	5.8%	0	0.0%
France	88,752	2.6%	0	0.0%
Argentina	67,200	2.0%	0	0.0%
Brazil	61,674	1.8%	0	0.0%
Finland	57,750	1.7%	0	0.0%
Other countries	61,638	1.8%	44605	1.6%
<b>Total Import</b>	<b>3,427,562</b>	<b>100%</b>	<b>2,858,403</b>	<b>100%</b>

Source: Global Trade Atlas

#### Stocks:

SAGO owns and operates silo complexes in major cities around the Kingdom. The organization had total combined storage capacity of 3.2 MMT at the end of 2016, an increase of 70 percent over 2011.

SAGO has signed contracts to build five additional silos in Mecca, Qassim, Jazan, Aseer, and Al-Hasa, which will increase the total storage capacity to 3.7 MMT by the end of 2017. SAGO has become expert in sourcing wheat from the international market and considers the world wheat supply to be reliable. As such, it no longer strives to maintain strategic wheat reserves equal to annual consumption, which increases by about five percent annually. The organization's current policy is to maintain wheat stocks at eight months of consumption.

### **Saudi Arabia Privatizes Flour Mills**

On November 9, 2015, the Saudi government approved the establishment of four milling companies and restructured the Grain Silos and Flour Mills Organization (GSFMO) under a new name, the Saudi Grains Organization (SAGO). The Saudi government authorized the Public Investment Fund (PIF) of the Ministry of Finance to set up four flour milling companies. The PIF has formed the companies, completed the required restructuring, and is now finalizing procedures to sell the mills to interested buyers through a competitive bidding process before the end of this year. Foreign investors will be allowed to compete with the Saudi investors to own and operate these flour mills.

The new milling companies will be clients of SAGO. They will process and distribute wheat flour to government approved customers at agreed subsidized prices. The new mills would be allowed, if they so choose, to import wheat for production of non-subsidized flour. This could be used for the production of upscale quality bakery and pasta products. Most of the revenue of the private mills is expected to come from the milling fees charged to SAGO. These flour mills have a combined daily milling capacity of 14,000 MT.

According to SAGO, the government does not want to relinquish total control of wheat silos, deeming these to be strategic to ensure food security objectives, but to privatize only a small part of the grain silos storage while the mills are all open for privatization.

### **Post Flour Mills Privatization Roles of SAGO**

SAGO will remain the sole importer of subsidized milling wheat, and will maintain ownership and operation of most of the wheat silos across the country. SAGO will manage the strategic wheat reserves and ensure the Kingdom's food security objectives. SAGO is expected to privatize only a part of its grain storage silos to provide a smooth transition for the new flour mills. The rest of the storage capacity will be retained by SAGO for strategic reserve purposes.

SAGO's post flour mills privatization roles will include the following:

- Issuing import permits for unsubsidized wheat to interested flour mills;
- Setting regulations related to wheat flour quality;
- Inspecting flour mills to ensure compliance with quality regulations;
- Encouraging and regulating competition among private flour mills; and
- Ensuring sufficient wheat flour is produced and delivered Kingdom-wide.

### **Marketing:**

SAGO is the sole wheat buyer and distributor of wheat flour in Saudi Arabia. All licensed bakeries, industrial users and supermarkets get their flour requirements directly from designated SAGO's flour mills located in their cities or from assigned agents in their respective areas. There are more than 525 appointed distributors, with about 100 that have more than one outlet. They serve a total of 11,606 establishments, of which 6,500 are licensed bakeries. The distributors provide packaged flour to licensed bakeries in 45-kg sacks and to retailers in 1, 2, 5, or 10-kg sacks. Industrial users purchase in bulk (metric tons).

### **Market Development Activities:**

Since the resumption of wheat imports in 2008, the U.S. Wheat Associates (USWA) regional office has coordinated market development and trade servicing activities in Saudi Arabia. The capacity-building activities, which included seminars, training and exchange programs, were designed to assist SAGO's purchasing staff in understanding the quality attributes of various U.S. wheat varieties. The USWA offered workshops to address diverse wheat purchasing issues, including risk management, contract terms, quality specifications, wheat inspection and other global market considerations related to wheat supply and demand, as well as freight and shipping costs.

### **Prices:**

Large bakeries and industrial users purchase wheat flour directly from SAGO flour mills, while smaller bakeries and retailers receive their assigned quotas from SAGO appointed distributors. SAGO's wholesale prices vary on the flour type and extraction rate. The wholesale price of a kg of consumer packed wheat flour range between \$0.27 and \$0.33, bakers purchase at prices from \$5.30 to \$8 per 45 kg, while industrial users purchase in bulk for prices that range between \$117.30 and \$160 per MT. The prices have not changed for over three decades.

### **Exports:**

Saudi Arabia does not export wheat. However, an estimated 10,000 MT of wheat equivalent of wheat products such as macaroni, pasta, biscuits and some bread are exported annually to the GCC and other nearby countries.

### **Production, Supply and Demand Data Statistics:**

Wheat Market Begin Year	2015/2016		2016/2017		2017/2018	
	Jul 2015		Jul 2016		Jul 2017	
Saudi Arabia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	2	0	2	2	0	2
Beginning Stocks	3838	3838	3214	3339	0	3164

<b>Production</b>	10	10	10	10	0	10
<b>MY Imports</b>	2931	2931	3500	3500	0	3700
<b>TY Imports</b>	2931	2931	3500	3500	0	3700
<b>TY Imp. from U.S.</b>	2	2	0	0	0	0
<b>Total Supply</b>	6779	6779	6724	6849	0	6874
<b>MY Exports</b>	10	10	10	10	0	10
<b>TY Exports</b>	10	10	10	10	0	10
<b>Feed and Residual</b>	55	55	55	115	0	55
<b>FSI Consumption</b>	3500	3375	3600	3560	0	3770
<b>Total Consumption</b>	3555	3430	3655	3675	0	3825
<b>Ending Stocks</b>	3214	3339	3059	3164	0	3039
<b>Total Distribution</b>	6779	6779	6724	6849	0	6874
(1000 HA) ,(1000 MT)						

## Barley

### Production:

Saudi barley production is estimated at approximately 10,000 MT, and is mostly for human consumption. The government has stopped feed barley production in order to conserve scarce water resources, as the Saudi barley crop is 100 percent irrigated. Local barley production is mainly used in specialty food items such as soups and traditional Saudi dishes during the fasting month of Ramadan. A small quantity is used by households making barley tea.

### Consumption:

Saudi Bedouins have preferred barley for animal feed because it is easier to handle and store than processed feed. More than 80 percent of imported barley in Saudi Arabia is consumed by livestock in its raw form without further processing and is mostly fed to sheep, camels, and goats. The remainder is largely used as an ingredient in dairy feed processing. Barley use in poultry feed process is estimated to be less than five percent of total imported barley. Sheep consume the largest portion of imported barley, followed by camels and goats. Dairy farms use limited quantities of barley in their feed formulations. When it is readily available at competitive prices, barley is often used in the place of forage. According to recently published official data, livestock in the Kingdom total about 14.7 million head (10 million sheep, 3.4 million goats, 813,000 camels and 500,000 cows). Overall, the total domestic livestock population has been flat at least since 2012 and averages about 14.7 million head. About 9 million head of livestock, mostly sheep, are imported annually for slaughtering and they consume an estimated 1.35 million MT of feed, mostly barley, annually.

Imported barley is used for animal feed, as there is no beer production in Saudi Arabia. Estimated feed barley consumption in MY2015/16 is reduced to 9.3 million MT, compared to the USDA's official estimate of 10.2 million MT. Similarly, estimated barley feed consumption for MY2016/17 is reduced to about 8.7 million MT, down by about 21 percent from USDA's official estimate of 11 million MT. The main reason for the decline in projected feed barley consumption is increased demand for processed feed due to its price competitiveness and perceived nutritional value. Barley is not generally used in local livestock (sheep, camel and goats) feed production. The dominant ingredient is corn-small quantities of feed wheat and sorghum is rarely used. This marketing year, a leading livestock feed producer imported 60,000 MT of feed wheat from Ukraine. Local feed processors indicate that the increased price

competitiveness of locally processed feed has been attracting a growing number of Bedouin livestock owners. It appears that they are discovering its better nutritional value and cost savings over feeding raw barley. Both the Saudi Ministry of Environment, Water and Agriculture (MEWA) and feed processors report that more than 20 percent of raw barley fed to livestock is wasted without being digested, thereby providing no benefit in terms of weight gain or nutrition to the animals.

ARASCO, the largest Saudi animal feed processor, with a production capacity of 4 million MT annually, is currently selling a 50-kg bag of a feed brand named “Wafi” at an ex-factory price of \$9.60 which is the same price that the Saudi government charges for a 50-kg bag of unprocessed barley (the government retail price for a MT of barley is \$213.33). ARASCO markets Wafi as a complete animal feed consisting of cereals, wheat bran, soybean meal, molasses, alfalfa, minerals and vitamins. Historically, the demand for barley fluctuates based on the price of alfalfa hay and processed feed. MEWA indicates that the country needs to produce 14.6 million MT of processed feed to reduce the quantity of barley consumption, and to meet increased demand for feed when domestic green forage production is terminated by the end of 2018. In 2015, the Kingdom produced 4 million MT of green forage. According to MEWA, the country’s current processed feed production capacity is about 7.7 million, and production capacity utilization is estimated at 61 percent.

### Trade:

In October 2016, SAGO took over the exclusive right to import and manage local distribution of feed barley from the Saudi Grain and Fodder Company (SGFC). SAGO imports barley through public tenders open to 24 approved and registered international exporters. Imported barley is kept at 28 contracted barley bagging and storage facilities throughout the Kingdom. The contractors distribute the packed barley to SAGO registered distributors at government established ex-factory price of \$9.6 per 50 kg of barley.

SAGO has issued three barley import tenders since it became the exclusive barley importer in Saudi Arabia. The third and final feed barley purchase for this marketing year was concluded on March 20, 2017 by procuring 1,510,000 MT for May-June arrivals. These are to purchase 3,955,000 MT of barley for arrival from January to June 2017.

Feed Barley Shipment Arrival Date	Quantity in MT	Purchase Price Per MT	Origin Options
May-Jun 2017	1,510,000	\$188.92	Australia, South America, EU and Black Sea
Mar-May 2017	1,500,000	\$190.70	Australia, South America, EU and Black Sea
Jan-Mar 2017	945,000	\$186.15	Australia, South America, EU and Black Sea
Total Jan-June 2017 Imports	<b>3,955,000 MT</b>		

Source: SAGO

The three SAGO import tenders and estimated barley purchased during the July-Dec 2016 period bring total expected Saudi barley imports to about 8 million MT by the end of June 2017, a decline of



approximately 29 percent compared to 11.2 million MT imported in MY 2015/16. Lower estimated Saudi barley imports this marketing year are due to very high ending stocks - because of record high barley imports last year - and increased use of processed feed. According to SAGO, the organization will continue to import about 8 million MT of barley annually until the government decides to limit the quantity of imported barley.

In the first six months of MY 2016/17, Ukraine was the top exporter of feed barley to Saudi Arabia with 1,805,566 MT, accounting for 51 percent of the total Saudi barley imports. Russia was a distant second with 26.2 percent, followed by Romania with 8.6 percent.

Saudi Barley Imports in MT				
Supplier	Jul 2015-Dec 2015		Jul 2016-Dec 2016	
Ukraine	2,120,400	33.6%	1,805,566	46.3%
Russia	1,909,663	30.2%	926,677	23.7%
Romania	601,263	9.5%	305,641	7.8%
Germany	424,685	6.7%	264,001	6.8%
France	132,000	2.1%	109,393	2.8%
Latvia	136,810	2.2%	72,220	1.9%
Australia	524,699	8.3%	0	0.0%
Estonia	148,618	2.4%	0	0.0%
Lithuania	250,347	4.0%	0	0.0%
Other Countries	70,273	1.1%	420,000	10.8%
<b>Total</b>	<b>6,318,758</b>	<b>100.0%</b>	<b>3,903,498</b>	<b>100.0%</b>

Source: Global Trade Atlas and Post estimates

The decline in the Saudi barley imports will benefit substitutes such as corn and feed wheat in the long run. The continued expansion in animal feed processing facilities has drastically increased the demand for feed corn. According to GTA data, Saudi corn imports in MY 2015/16 (Oct 2015-Sep 2016) reached 3.583 million MT, an increase of 85 percent compared to 1.933 million MT imported in MY 2010/2011. As the domestic feed processing is expected to drastically increase in the next few years, Saudi Arabia will become a major player in the global corn market.

In MY 2015/16, Russia was the leading feed barley supplier to the Kingdom with about 2.4 million MT, accounting for 21.2 percent of imports, followed closely by Ukraine (20.8%), and then by Argentina and Germany - with 14.6 and 13.8 percent, respectively.

Saudi Barley Imports in MT				
Supplier	July 2014-June 2015		July 2015-June 2016	
Russia	2,699,214	32.9%	2,374,739	21.2%
Ukraine	2,806,037	34.2%	2,329,800	20.8%
Argentina	65,192	0.8%	1,633,489	14.6%

Germany	1,074,510	13.1%	1,550,705	13.8%
Romania	540,605	6.6%	873,208	7.8%
France	78,738	1.0%	673,900	6.0%
Australia	0	0.0%	588,898	5.3%
Estonia	132,000	1.6%	295,622	2.6%
Lithuania	127,240	1.6%	250,347	2.2%
Other Countries	675,110	8.2%	629,400	5.6%
<b>Total</b>	<b>8,198,646</b>	<b>100%</b>	<b>11,200,000</b>	<b>100%</b>

Source: Global Trade Atlas and USDA

### **Stocks:**

SAGO does not release information on Saudi strategic barley data. However, it is estimated at more than 30 percent of total consumption.

### **Policy:**

The MEWA wants to drastically reduce the use of raw barley as livestock feed. The ministry wants to see feed barley used only as an ingredient to produce compound feed. There is no publicly available information on when the ministry wishes to achieve this goal. In order to increase the supply of processed feed at competitive prices, the government provides incentives to establish animal feed processing companies and expand existing ones. Incentives offered include long term interest free loans and import subsidies on 31 feed grains and feed ingredients. The current list of animal feed products eligible for import subsidies includes, yellow corn, soybean meal, distillers dried grains with solubles (DDGS), corn-gluten feed (CGF), sorghum, barley straw, sunflower meal, sugar cane molasses, alfalfa hay and rice hulls. The subsidy rates are calculated according to the energy and protein contents of each feed ingredient, and the subsidy levels were modified recently. Import subsidies on 48 percent protein soybean meal and corn are \$137 and \$82 per MT, respectively. The import subsidies on sugar cane molasses, DDGS, and CGF are \$33, \$99, and \$91 per MT, respectively. Because barley is imported by SAGO, which is part of the Saudi government, it does not have an explicit import subsidy.

### **Marketing:**

#### **Domestic Barley Price**

Sufficient barley supplies are readily available at competitive prices throughout the Kingdom. Currently, large livestock farmers and licensed wholesale barley distributors can purchase a 50 kg sack of barley at a packing facility at the government set price of 36 Saudi Riyals (SAR) or about \$9.60 per 50 kg. The government allows barley dealers to resell the 50 kg sack at a maximum retail price of 40 SAR (\$10.60).

#### **Barley Distribution Channels**

Barley shipments usually arrive through five Saudi ports: Jeddah, Dammam (the largest and second largest seaports in the country), Yanbu, Diba, and Jazan on the Red Sea. After barley is discharged at port, it is transported by truck to the nearest SAGO contracted bagging facility outside the port. The bagged barley is usually picked up by pre-assigned dealers or large end-users from the distribution centers.

### Production, Supply and Demand Data Statistics

Barley	2015/2016		2016/2017		2017/2018	
Market Begin Year	Jul 2015		Jul 2016		Jul 2017	
Saudi Arabia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	2	2	2	2	0	2
Beginning Stocks	3074	3074	4059	4974	0	4274
Production	10	10	10	10	0	10
MY Imports	11200	11200	11000	8000	0	7600
TY Imports	10400	10700	11000	8000	0	7600
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	14284	14284	15069	12984	0	11884
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	10200	9300	11000	8700	0	8000
FSI Consumption	25	10	25	10	0	10
Total Consumption	10225	9310	11025	8710	0	8010
Ending Stocks	4059	4974	4044	4274	0	3874
Total Distribution	14284	14284	15069	12984	0	11884
(1000 HA) ,(1000 MT)						

## Corn

### Production:

Corn production is very limited in Saudi Arabia. Approximately 80,000 MT is produced for human consumption annually. Domestic dairy farmers plant a significant acreage of corn silage as digestible fiber and readily fermentable energy for their cattle.

The corn crop is planted in the spring and summer. The spring crop is planted in March and harvested in August, while the summer crop is planted in the last week of June and harvested from mid-November until the end of December. About 60 percent of corn production is planted in the summer season. The area planted to corn in MY 2015/2016 was estimated at 14,200 HA, with an average yield of 5.6 MT per hectare.

Domestic corn production has been constant over the past several years because Saudi corn growers do not receive government support, neither through direct production subsidies nor by government guaranteed prices. Government policy has been to discourage domestic production of water-intensive crops, including feed corn. The government also subsidizes imported corn.

### Consumption:

Imported corn is primarily used for animal feed processing. And approximately 100,000 MT of imported corn is utilized by the food processing industry. Locally grown corn is used for food (corn-on-the-cob) and milled for flour by small neighborhood flour mills for baking needs. Feed corn consumption in Saudi Arabia in MY2016/17 is forecast to reach 3.7 million, an increase of about 4 percent over the USDA's official estimate. Feed corn consumption is projected to surpass 4 million MT by the end of MY2017/18 due to continued expansion in the country's animal feed processing sector. Demand for processed feed by livestock farmers is expected to increase due to the scheduled phase out of domestic green forage production by the end of 2018.

Corn food, seed and industrial (FSI) consumption has been revised down to 180,000 MT in MY2015/16 compared to the USDA's official estimate of 250,000 MT based on data provided by the Kingdom's only food corn processing company, The Middle East Food Solutions Company (MEFSCO). The company is completing an expansion project at its corn processing facilities. When complete, hopefully by the end of MY 2017/18, annual production will increase from 100,000 MT to 300,000 MT.

Corn continues to be a very important feed grain for poultry farms; it accounts for approximately 60 percent of feed ingredients used in poultry feed formulations. It is also a key feed grain used by commercial feed processors and domestic dairy farms.

Feed consumption by livestock (sheep, camel and goats) is forecast to decline sharply with the increased use of processed feed by the livestock sector. According to local feed producers, the feed conversion ratios (FCR) for processed feed is almost double that of barley. They indicate that about 7 kg of processed feed is needed to produce one kg of meat, while about 11 kg of raw barley is needed to produce the same result.

Feed accounts for approximately 70 percent of broiler meat production costs. The Saudi government has been providing import subsidies for feed corn and other feed ingredients, including DDGS and CGF to help reduce production cost of poultry meat, table eggs, dairy and other livestock products. The current import subsidy for corn is \$84.40 per MT.

### **Industrial Use:**

MEFSCO is a joint venture established by ARASCO and the Cargill Co. to manufacture starch-based products for the Saudi market and the MENA region. MEFSCO's plant produces starches, sweeteners, glucose, high fructose corn syrups and other food processing ingredients for confectioneries, juices, and bakery. MEFSCO is based in Al-Kharj, and depends on imports for corn supply.

### **Trade:**

While wheat and barley are exclusively imported by SAGO, feed corn is imported freely by the private sector in Saudi Arabia, with no import duties. In addition, as mentioned earlier, the government encourages corn imports by providing an import subsidy of \$82.40 per MT to importers. Total Saudi corn imports in MY 2016/17 are estimated at 3.9 million MT, an increase of 5 percent, and 200,000 MT higher than USDA's official estimate of 3.7 million MT. Post forecasts total Saudi corn imports at 4.3 million MT in MY 2017/18 due to production expansion by livestock feed processors.

In MY 2015/16 (Oct 2015-Sep 2016), Saudi Arabia imported 3.583 million MT of feed corn, an increase of more than 23 percent compared to the previous year, and more than 85 percent more than the 1.933 million MT imported in MY 2010/2011. The major contributing factors for the drastic increase in the feed corn imports since 2011 are the expansion in domestic poultry farms and the continued increase in the animal feed processing.

In MY 2015/16, the U.S. maintained its dominance of the Saudi corn market for the third consecutive year. Total U.S. corn exports to Saudi Arabia exceeded 1.5 million MT, and the U.S. controlled approximately 41 percent of the Saudi corn market. U.S. exports increased by more than 28 percent in MY 2014/15, compared to the year before. Argentina was the second largest corn exporter to Saudi Arabia last year, with 31 percent, followed by Brazil with 27 percent of the market. Argentina was the largest beneficiary from expanded Saudi corn imports last year, as it increased its total exports by about 68 percent, while Brazil lost 7 percent compared to MY2014/15.

<b>Saudi Corn Imports</b>				
<b>Exporter</b>	<b>Oct 2014-Sep 2015</b>		<b>Oct 2015-Sep 2016</b>	
	<b>Quantity</b>	<b>Market Share</b>	<b>Quantity</b>	<b>Market Share</b>
United States	1,187,245	41%	1,525,246	43%
Argentina	662,704	23%	1,101,269	31%
Brazil	1,023,345	35%	955,402	27%
Other Countries	31,032	1%	602	0%
<b>Total</b>	<b>2,904,326</b>	<b>100%</b>	<b>3,582,519</b>	<b>100%</b>

Source: Global Trade Atlas

### **DDGS and CGF Imports:**

Dried distillers grain with soluble (DDGS) and corn gluten feed (CGF) are two of the 31 animal feed ingredients that are eligible to receive Saudi government import subsidies. Importers of DDGS and CGF receive \$99 and \$91 per MT as import subsidies, respectively. To qualify for the subsidies, DDGS shipments must have at minimum 23 percent protein content and 2,800 energy units per MT. For CGF, the minimum protein requirement is 20 percent and the energy requirement is 2,700 units per MT. According to U.S. Customs data and USGC, a total of 8,387 MT of DDGS was imported from October 2016 to January 2017. No DDGS imports were registered in the past two marketing years. Saudi animal feed importers report that demand for DDGS fluctuates based on its price relative to corn.

### **Marketing:**

The U.S. Grain Council (USGC) has been active in the Saudi market conducting activities to educate Saudi poultry farms, dairy producers and feed millers about the benefits of using DDGS, CGF and sorghum in their animal feed formulations. In summer of 2011, USGC's successful efforts were the main factor in convincing the Saudi government to include DDGS and CGF in the list of imported feed ingredients eligible for import subsidy. This created a good opportunity for U.S. DDGS and CGF

exports to Saudi Arabia. The organization conducts several trade servicing visits to Saudi Arabia annually, and provides technical consultations to explain the benefits of including DDGS in livestock and poultry feed formulas. USGC sponsors delegations of Saudi buyers to attend regional and U.S. feed grain conferences. And USGC organizes field visits to major U.S. corn producing states for Saudi feed grains buyers.

### Production, Supply and Demand Data Statistics:

Corn	2015/2016		2016/2017		2017/2018	
Market Begin Year	Oct 2015		Oct 2016		Oct 2017	
Saudi Arabia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	14	14	14	14	0	14
Beginning Stocks	248	248	311	381	0	481
Production	80	80	80	80	0	80
MY Imports	3583	3583	3700	3900	0	4300
TY Imports	3583	3583	3700	3900	0	4300
TY Imp. from U.S.	1523	1523	0	2000	0	2500
Total Supply	3911	3911	4091	4361	0	4861
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	3350	3350	3550	3700	0	4100
FSI Consumption	250	180	250	180	0	250
Total Consumption	3600	3530	3800	3880	0	4350
Ending Stocks	311	381	291	481	0	511
Total Distribution	3911	3911	4091	4361	0	4861
(1000 HA) ,(1000 MT)						

## Rice

### Production:

There is no rice production in Saudi Arabia; the country relies on imports to satisfy the local market.

### Consumption:

For MY2015/16, total rice consumption is estimated at 1.35 million MT, a reduction of about 13 percent from USDA's official estimate. Estimated consumption is reduced due to the departure several thousand expatriates. Many large construction companies failed due to an economic down-turn in the Kingdom caused by lower international oil prices. It is not clear how many expatriates will send their families home beginning July 2017 when the SAR 1,200 (\$320) annual residence tax is imposed on immediate family members of foreign workers. However, the number is expected to be significant.

Total rice consumption is expected to increase by one percent to 1.37 million in MY 2016/17, and is projected to reach 1.40 million in MY 2017/18. Demand for rice is expected to grow after MY 2017/18 due to population growth of 2.7 percent, improvement in the Kingdom's economic situation, and an

increase in foreign visitors to Mecca to perform the *hajj* and *umrah* rituals. In recent years, the total number of visitors who came to Saudi Arabia to perform *hajj* and *umrah* has been close to eight million people. Fifteen million Hajj and Umrah visitors are expected annually by the end of MY 2019/20.

Basmati aromatic rice (from the Indian subcontinent) is the most popular rice variety in the Saudi market. American long parboiled and medium grain calrose rice varieties are well known, but Saudi consumers preferences have shifted to basmati varieties. While Indian basmati rice is mostly consumed in the eastern, central and western regions of Saudi Arabia, American rice is popular in the southern region of the Kingdom, and is also very popular in restaurants that prepare Kabsah dishes. “Kabsah”, a traditional rice dish, is widely served in Saudi homes. Rice is a staple food in Saudi Arabia and is served at both lunch and dinner. The majority of Saudis include rice as a major part of their daily diet. Most of the 10 million expatriates living in Saudi Arabia (from the Indian subcontinent and other Far East countries) are large consumers of rice. In 2016 the population of Saudi Arabia was estimated at 31.7 million. Saudi Arabia’s per capita rice consumption in 2016 is estimated at about 43 kg/year.

### **Trade:**

Private companies freely import rice into Saudi Arabia. They are not assessed a duty, but no import subsidy is provided. In MY 2015/16, Saudi Arabia imported approximately 1.234 million MT of rice, a decrease of about 12 percent compared to the USDA’s official estimate of 1.4 million MT. According to trade sources, the main reasons for lower imports last marketing year were high stocks at importers warehouses and reduced demand due to the departure of a large number of foreign workers. The increased stocks are the result of record imports of about 1.561 million MT in MY 2014/15. There is no official data on rice ending stock levels.

MY 2016/17 rice imports are estimated at 1.32 million MT, down from the official USDA estimate of 1.55 million MT due to reduced demand. Post projects MY 2017/18 imports at about 1.39 million MT, an increase of five percent. This is mainly to maintain stock levels and to account for a slight increase in demand as the number of foreign visitors to Mecca to perform the *hajj* and *umrah* rituals increases.

India remains the dominant rice supplier to the Saudi market. It controlled about 75 percent of the market in MY 2015/16 by exporting 925,180 MT to Saudi Arabia. This was a decrease of more than 23 percent compared to its exports of about 1.208 million MT in MY 2014/15. Over the past several years, Indian rice exports to Saudi Arabia have benefited from a shift in Saudi consumer preferences towards Basmati rice. In MY 2015/16, Basmati varieties accounted for 85 percent of India’s total rice exports to the Saudi market. Basmati variety is the highest-priced rice varieties in the Kingdom. India’s remaining exports were non-Basmati varieties, mainly Parimal.

Rice Variety	Retail Price per 10 Kg in US\$
Indian Long Grain White Basmati Rice	\$29.07-\$39.20
Indian Long Grain Sella (parboiled) Basmati Rice	14.27-19.73
Thai Long Grain Fragrance Rice	16.6
American Long Grain Parboiled Rice	14
American Medium Grain Calrose Rice	\$15.87

**Source: Riyadh based large retail chain**

The United States was a distant second in rice exports to Saudi Arabia in 2016. Exports from the U.S. accounted for about 10 percent of total Saudi imports, or 123,471 MT, an increase of approximately 7 percent over the previous marketing year. MY 2015/16 witnessed record exports of 47,803 MT U.S. medium grain Calrose rice to Saudi Arabia, representing an increase of approximately 246 percent over MY 2014/15. American long grain parboiled rice accounted for approximately 61 percent of total U.S. rice exports to Saudi Arabia. This was a decline compared to its 83 percent average market share over the past four marketing years. The two main reasons for the increase in U.S. medium grain rice exports are: (1) high demand for medium grain rice due the export embargo placed on Egyptian medium grain rice (Egypt used to export about 30,000 MT of medium grain rice to Saudi Arabia); and (2) competitive U.S. export prices. According U.S. Customs, the average FOB price for U.S. medium grain rice decreased from about \$965 per MT in MY 2014/15 to \$899 in MY 2015/16 while the average price for U.S. long grain rice decreased from about \$723 to \$717 per MT during the same period.

U.S. Rice Variety	2014		2015		2016	
	FOB Value Per MT in USD	Qty in MT	FOB Value Per MT in USD	Qty in MT	FOB Value Per MT in USD	Qty in MT
U.S. Long Grain Rice	\$889	82,687.90	\$723	102,076.30	\$717	75,668.30
U.S. Med. Grain Rice	\$965	18,629.1	\$937	13,822.9	\$899	47,802.7

Source: U.S. Customs

U.S. exports of long grain rice to Saudi Arabia have fluctuated depending on their price competitiveness with other varieties, especially Indian parboiled basmati rice. Saudi rice importers and consumers tend to easily switch between U.S. parboiled and Indian sella (parboiled) basmati rice when prices are advantageous to them. The average FOB price for Indian rice was \$761 per metric ton in 2016. According to local importers, the average price for Indian rice has increased significantly due to Iranian decision to lift its five-month-old ban on imports of rice from India early in January 2017. Traditionally, Iran has been a major Middle Eastern importer of Indian rice.

Pakistani rice exports to Saudi Arabia, which usually compete with U.S. exports for the second-largest share of the Saudi rice market, decreased from 152,259 MT in MY 2014/15 to 104,032 MT in MY 2015/16, a reduction of 32 percent. Thai rice exports to Saudi Arabia have been constant over the past few marketing years. In MY 2015/16 Thai rice exports total 69,259 MT, virtually unchanged compared to 69,342 MT in the previous marketing year.

Saudi Rice Imports in MT				
	MY2014/15 (Jan-Dec 2015)		MY2015/16 (Jan-Dec 2016)	
Origin	Quantity	Market Share	Quantity	Market Share
India	1,207,705	77%	925,180	75%
U.S.	115,899	7%	123,471	10%
Pakistan	152,259	10%	104,032	8%
Thailand	69,342	4%	69,259	6%
Other Countries	15,301	1%	11,792	1%



