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Saudi Arabia

Grain and Feed Annual

2018

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Report Highlights:
Saudi corn imports in marketing year (MY) 2017/18 are forecast to increase by 15 percent, to about 4 million MT. In MY 2016/17, U.S. corn exports continued their dominance of the Saudi market, surpassing 2 million metric tons (MT) and accounting for about 60 percent of the market. Saudi MY 2017/18 wheat imports are projected at approximately 3.26 million MT, a decrease of 10 percent compared to the previous MY. Saudi barley imports in MY 2017/2018 are projected at approximately 7.8 million MT, a 4 percent decline compared to 8.1 million MT imported in MY 2016/17. Projected MY 2017/18 Saudi rice imports are 5 percent lower than the MY 2016/17 estimate, at 1.05 million MT. The departure of resident expatriates is the main reason for the declining demand for wheat and rice imports.

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 MY2016/17 is estimated at 3.550 million MT based on data provided by the Saudi Arabia Grains Organization (SAGO). This is very close to USDA's official estimate of 3.560 million MT. Official data issued by SAGO shows that the Kingdom consumed 2.6 million MT of wheat flour in MY2016/2017. Total wheat consumption is projected to decline over the next couple of years due to the likely departure of hundreds of thousands of expatriates. This is due to several measures the government introduced last year. The three main Saudi government measures implemented in 2017 were: (1) expatriate dependent fee: (2) strict implementation of Saudization measures: and (3) the Saudi campaign dubbed "A Nation without Violations" that focuses on expelling residency and labor law violators from the country. The departure of expats from the Kingdom is the main reason for the decline in wheat consumption during the forecast period.

According to SAGO, the Makkah region accounts for about 35 percent of the total wheat flour consumed in the country-- 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 Makkah region in 2017.

The government is working to increase the number of religious tourists coming to perform *umrah* and *hajj* from 12 million in 2017 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* and *hajj* 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. The government is developing the required infrastructure to accommodate the growing number of pilgrims and to facilitate the performance of the *umrah* and *hajj* rituals. As part of Vision 2030 economic transformation plan, the Kingdom announced for the first time that in January 2018 that it will issue an online tourist visa for 65 countries, including European Schengen visa countries (25 Countries), the United States, Japan, China, Singapore, Malaysia, Brunei, Australia, South Korea, and South Africa

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 109 grams per day, or about 40 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 highest 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. No feed wheat imports reported thus far in this marketing year.

Trade:

SAGO is the exclusive importer of subsidized 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). U.S. companies interested in participating in SAGO's wheat and barley tenders may contact the organization online at http://www.sago.gov.sa/Site/contact

SAGO issued six international wheat import tenders in MY2017/18 to import a total of about 3.258 million MT by the end of June 30, 2018, an increase of 8 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 Data	Minimum Protein Content	Quantity in MT	Purchase Price Per MT in USD	Origin Options
Apr.-Jun. 2018	Protein 12.5%	739,000	$240.16	EU, Australia, North and South America
Feb.-Apr. 2018	Protein 12.5%	495,000	230.53	EU, Australia, North and South America
Dec.2017 - Jan 2018	Protein 12.5%	484,000	223.85	EU, Australia, North and South America
Oct - Dec 2017	Protein 12.5%	490,000	218.19	EU, Australia, North and South America
Aug. - Oct. 2017	Protein 12.5%	805,000	216.66	EU, Australia, North and South America
July 2017	Protein 12.5%	180,000	220.49	EU, Australia, North and South America
Total MY2017/18 SAGO what purchase		**3,258,000 metric tons**		

Source: SAGO

Trade data from wheat supplying countries shows that for the first six months of MY2017/18 (July-Dec 20167) that Saudi Arabia imported a total of 1,526,468 MT, a decline of about 29 percent, compared to 2,146,484 MT imported in the same period of the previous year. The continued departure of expatriates

is the main reported reason for the significant decrease in Saudi wheat imports in the first six months of this MY. Post estimates total Saudi wheat imports for MY 2017/18 at 3.258 million MT, which is slightly lower than the USDA's official estimate of 3.3 million MT.

In the first six months of MY2017/18, Lithuania was the top exporter of wheat to Saudi Arabia with 518,781 MT, accounting for 34 percent of the total Saudi wheat imports. Lithuanian wheat exports to the Kingdom increased by about 68 percent in the first six months of this MY, compared to its exports in the same period of MY2016/17. Latvia was the second-largest exporter with 26.5 percent, and Germany was the third-largest supplier with 23.7 percent.

Supplying Country	**July 2016-Dec 2016**	**Market Share**	**July 2017-Dec 2017**	**Market Share**
Lithuania	328,750	15.3%	518,781	34.0%
Latvia	131,249	6.1%	404,357	26.5%
Germany	775,915	36.1%	361,134	19.5%
Poland	779,096	36.3%	116,400	7.8%
Estonia	0	0.0%	66,000	0.1%
France	0	0.0%	52,475	4.0%
Other Countries	131,474	6.1%	7,321	3.6%
Total	**2,146,484**	100%	**1,526,468**	100%

Source: Global Trade Atlas

Saudi Arabia imported about 3.633 MMT of milling wheat in MY2016/17, an increase of 27 percent compared to imports in MY2015/16. The main reason for the increased wheat imports this MY compared to last year is the need to maintain strategic wheat reserves of 8 months of consumption. Maintaining strategic wheat reserves at 8 months of consumption is a government policy, as the country depends entirely on wheat imports to meet local wheat consumption demand.

In MY2016/17, Germany was the leading wheat supplier to Saudi Arabia, with 47.2 percent of the market and exports of more than 1.7 million MT. Poland was the second-largest supplier with 28.2 percent, followed by Lithuania with 9 percent. The U.S. was a distant fourth place with 4.7 percent market share. MY2016/17 was the first time the U.S. exported wheat to Saudi Arabia since MY2013/14.

Stocks:

SAGO owns and operates silo complexes in major cities around the Kingdom. The organization had

total combined storage capacity of 3.23 MMT at the end of 2017, 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 2019. 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. 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) to set up four flour milling companies. The PIF has completed the required restructuring and formed the four companies, which have commenced operating independently. The PIF has reportedly finalized required procedures to sell the mills to interested buyers through a competitive bidding process before the end of this year. Foreign investors are allowed to partner with Saudi investors to co-own and operate these flour mills. It was reported that foreign investors are allowed to own up to 49 percent ownership in the 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 after obtaining import permits from SAGO. 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 portion of the grain silos.

SAGO Roles after Privatization

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:

Licensed bakeries and supermarkets and almost all industrial users get their flour directly from SAGO's flour mills 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 based on the flour type and extraction rate. The wholesale price of a kg of consumer-packed white wheat flour was increased by 50 percent from $0.27 to $.40 in 2017. 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. Prices to bakers and industrial clients have not changed for over three decades.

Possible End of Wheat Flour Subsidy:

Privatization of government flour mills may change the prices of wheat flour or bread. Currently, 500 grams of pita bread or samoli is sold for one Saudi riyal (SAR) or $0.27. Some government officials indicate that the fair price for 500 grams of pita or samoli bread should be SAR2.5 or $0.67. According to the Saudi National Transformation Program (NTP) 2020 launched in 2016, the government aims at ending all subsidies it pays to consumers by the end of 2020. NTP 2020 is one of the several activities that the Saudi government intends to undertake to achieve its ambitious Vision 2030, which is aimed at diversifying the country's economy and drastically reducing the Kingdom's dependence on oil revenues by 2030. If the government subsidy on bread ends, the flour mills will be able to import wheat and sell bread at market prices without government intervention, which will end SAGO's monopoly on wheat imports and bread price controls.

All food products, including wheat flour, bread and rice, are levied a five percent value added tax, which was implemented for the first time in the Kingdom in January 2018.

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	2016/2017		2017/2018		2018/2019	
Market Begin Year	Jul 2016		Jul 2017		Jul 2018	
Saudi Arabia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	2	2	2	2	0	2
Beginning Stocks	3370	3370	3419	3338	0	3146
Production	10	10	10	10	0	10
MY Imports	3716	3633	3300	3258	0	3300
TY Imports	3716	3633	3300	3258	0	0
TY Imp. from U.S.	174	174	0	0	0	0
Total Supply	7096	7013	6729	6606	0	6456
MY Exports	2	10	10	10	0	10
TY Exports	2	10	10	10	0	10
Feed and Residual	115	115	100	0	0	0
FSI Consumption	3560	3550	3700	3450	0	3410
Total Consumption	3675	3665	3800	3450	0	3410
Ending Stocks	3419	3338	2919	3146	0	3036
Total Distribution	7096	7013	6729	6606	0	6456
Yield	5	5	5	5	0	5
(1000 HA) ,(1000 MT) ,(MT/HA)						

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 to conserve scarce water resources, as the Saudi barley crop is 100 percent irrigated. Local barley production is mainly used in 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:

Imported barley is used for animal feed, as there is no beer production in Saudi Arabia. Domestic feed barley consumption in 2017/2018 is forecast to decline by about 14 percent to 8 million MT. This is 1.3 million MT lower than USDA's official estimate of 9.3 million MT. Barley consumption is forecast to decline by another six percent in MY2018/19 compared to MY2017/18. The continued drop in consumption is mainly due to increased utilization of competitively priced processed animal

feed products. In addition, better growing conditions allowed producers to graze their animals longer in 2017/18, further reducing barley consumption.

Traditionally, white barley has been the preferred animal feed for Bedouins. Approximately 80 percent

of imported barley is fed to sheep, camels, and goats without further processing in combination with green forage. 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.

The dominant ingredient in local livestock (sheep, camel and goats) feed production is corn. Barley is not generally used. In MY2016/17, ARASCO, the largest Saudi animal feed processor imported about 115,000 MT of feed wheat for use in livestock feed production. Local feed processors indicate that the increased 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 raw barley feed. 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.

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 the 2017 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.

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 complete livestock feed brand named "Wafi" at an ex-factory price of SAR34 or $9.07, which is cheaper than the $9.6 an ex-factory price 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. Domestic feed processors indicate that the country needs about 9.7 million MT of processed feed to substitute the demand for grain barley feeding and to meet increased demand for feed when domestic green forage production is terminated by the end of 2018. Recently available data indicates that in 2015, the Kingdom produced 4 million MT of green forage. According to MEWA, the country's processed feed production capacity was about 7.7 million in 2015, and production capacity utilization was estimated at 61 percent.

Trade:

Saudi Arabia's barley imports for MY2017/18 are estimated at 7.8 million Metric Tons (MT), eight percent lower than USDA's official estimate of 8.5 million MT. Post reduced USDA's official estimate due to the volume of barley imports contracted by SAGO for the 11 months of MY2017/18 (July 2017-May 2018) and estimated imports for the month of June. In addition, approximately 700,000 MT of barley purchased in MY2016/17 arrived early in MY2017/18.

SAGO purchased a total of 6,285,000 MT of feed barley this MY to cover consumption demand and strategic reserves through the end of May 2018. In total, SAGO will receive 6,985,000 MT of barley through the end of May 2018 – this includes the 700,000 MT it received early in this MY which was

purchased in the previous MY. SAGO has imported an average of 635,000 MT of barley per month since the start of the current MY. The organization is expected to issue one barley import tender in the coming few weeks for approximately 800,000 MT to cover June domestic barley consumption and reserve needs.

Saudi Arabia's barley imports in MY2018/19 are forecasted at 7.5 million MT, a reduction of 300,000 MT. This is mainly due to increasing availability of competitively priced processed feed. New feed processers are expected to begin operations over the coming year while existing processors are expected to expand production. The expected reduction in forage production is important in reducing barley imports as barley is jointly fed with forage as alternative to processed complete feed.

SAGO Barley Purchase Contracts July-May 2018

Barley Arrival Period	Quantity Ton	Price in USD per MT	Origin
Apr.-May2018	960,000	243.47	Australia, North & South America, EU, Black Sea
Feb.-Mar.2018	1,002,000	216.73	Australia, North & South America, EU, Black Sea
Jan.-Feb.2017	723,000	215.11	Australia, North & South America, EU, Black Sea
Nov.-Dec.2017	540,000	216.87	Australia, North & South America, EU, Black Sea
Oct 2017	660,000	203.37	Australia, North & South America, EU, Black Sea
Sep.-Oct.2017	900,000	204.99	Australia, North & South America, EU and Black Sea
Jul.-Aug.2017	1,500,000	176.47	Australia, North & South America, EU and Black Sea
Total July 2017-May 2018 Imports			**6,285,000 MT**

Source: SAGO

SAGO tends to import large quantities of grains when prices are attractive. As such, the organization may import more than the projected barley quantities if prices become more competitive.

Saudi Barley Imports in MT		
Supplier	**Jul 2017-Nov 2017**	
Ukraine	1,607,241	39.4%
Russia	1,295,216	31.7%
Romania	463,769	11.4%
Germany	322,234	7.9%
France	198,889	4.9%

In the first five months of MY2017/18, Ukraine was the top exporter of feed barley to Saudi
Arabia with 1,607,241 MT, accounting for 39.4 percent of total Saudi barley imports. Russia was the second largest supplier with 31.7 percent, followed by Romania with 11.4 percent.
Atlas

Estonia	130,577	3.2%
Canada	66,000	1.6%
Total	**4,083,926**	100%

Source: Global Trade

Stocks:

SAGO does not release information on Saudi strategic barley data. However, it is estimated at about 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 subsides 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; 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 $91per 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 Revised Saudi Barley PSD Table

Barley	2016/2017		2017/2018		2018/2019	
Market Begin Year	Jul 2016		Jul 2017		Jul 2018	
Saudi Arabia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	2	2	2	2	0	2
Beginning Stocks	4059	4059	2344	2359	0	2159
Production	10	10	10	10	0	10
MY Imports	8100	8100	8500	7800	0	7500
TY Imports	8400	8400	8500	7800	0	7500
TY Imp. from U.S.	0	0	0	0	0	0
Total Supply	12169	12169	10854	10169	0	9669
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	9800	9800	9300	8000	0	7500
FSI Consumption	25	10	25	10	0	10
Total Consumption	9825	9810	9325	8010	0	7510
Ending Stocks	2344	2359	1529	2159	0	2159
Total Distribution	12169	12169	10854	10169	0	9669
Yield	5	5	5	5	0	5
(1000 HA) ,(1000 MT) ,(MT/HA)						

Corn

Production:

Corn production is very limited in Saudi Arabia. Approximately 80,000 MT are 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:

In MY2017/18, total corn consumption was estimated at about 4 million MT, a reduction of 500,000 MT compared to the USDA's official estimate of 4.5 million MT. Consumption in MY2018/19 is projected to increase by about 12 percent, to 4.45 million MT. Imported corn is primarily used for producing animal feed. A small quantity of approximately 200,000 MT is used in the production of food processing ingredients, such as starch and sweeteners. Most domestically grown corn is used as corn-on-the-cob and milled for flour by small neighborhood flour mills.

The continued decline in the Saudi barley imports and the expected drastic reduction in domestic green forage production will increase the demand for feed corn for the next few years. The sustained expansion in local animal feed processing facilities has drastically increased the demand for feed corn over the last three years. 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 and the price competitiveness of processed feed.

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.

The volume of feed consumed 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 ratio (FCR) for processed feed is about 1.5 times 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 subsides 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. Based in Al-Kharj, MEFSCO depends on imports for corn supply. The company plans to crush about 200,000 MT of corn this year and plans to increase that amount to 300,000 MT by the end of next year.

Trade:

The decline in the Saudi barley imports is benefiting substitute feed grains such as corn. The continued expansion in animal feed processing facilities and domestic poultry farms has drastically increased the demand for feed corn over the past six years. According to GTA data, Saudi corn imports in MY 2016/17 (Oct 2016-Sep 2017) reached 3.42 million MT, an increase of 88 percent compared to 1.815 million MT imported in MY 2012/2013. As the domestic feed processing and domestic poultry farms continue to expand, Saudi Arabia will become a major player in the global corn market. MY2018/19 total Saudi corn import is projected to reach 4.4 million MT, an increase of about 29 percent.

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.

In MY 2016/17, the U.S. maintained its dominance of the Saudi corn market for the fourth consecutive year. Total U.S. corn exports to Saudi Arabia exceeded 2 million MT, and the U.S. controlled approximately 59 percent of the Saudi corn market. U.S. exports increased by about 32 percent in MY 2016/17, compared to the year before. Argentina was the second largest corn exporter to Saudi Arabia last year, with 33 percent, followed by Brazil with 8 percent of the market. The U.S. has been the

largest beneficiary of the growth in Saudi corn imports over the last six years. Saudi Arabian imports of U.S. corn increased drastically from 347,234 MT in MY2012/13 to more than two million MT in MY2016/17 despite repeated complaints by Saudi feed corn importers that U.S. corn contains higher foreign matter and dust then Latin American corn.

Saudi Corn Imports		
Exporter	Oct 2016-Sep 2017	
	Quantity	Market Share
United States	2,010,221	59%
Argentina	1,124,656	33%
Brazil	284,257	8%
Other Countries	1,089	0%
Total	**3,420,223**	**100%**

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 import subsidies of $99 and $91 per MT, respectively. To qualify for the subsidies, DDGS shipments must have at a minimum protein content of 23 percent 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, 49,666 MT of DDGS were shipped to Saudi Arabia in MY2016/17, an increase of about nine-fold compared to 8,418 MT imported in MY2015/16. 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 the 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. USGC also organizes field visits to major U.S. corn-producing states for Saudi feed grains buyers.

Production, Supply and Demand Data Statistics:

Corn	2016/2017	2017/2018	2018/2019

Market Begin Year	Oct 2016		Oct 2017		Oct 2018	
Saudi Arabia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	14	14	14	14	0	14
Beginning Stocks	311	311	191	191	0	241
Production	80	80	80	80	0	80
MY Imports	3420	3420	4500	3950	0	4400
TY Imports	3420	3420	4500	3950	0	4400
TY Imp. from U.S.	2010	2010	0	1500	0	1500
Total Supply	3811	3811	4771	4221	0	4721
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Feed and Residual	3370	3370	4200	3700	0	4100
FSI Consumption	250	250	300	280	0	350
Total Consumption	3620	3620	4500	3980	0	4450
Ending Stocks	191	191	271	241	0	271
Total Distribution	3811	3811	4771	4221	0	4721
Yield	5.7143	5.7143	5.7143	5.7143	0	5.7143
(1000 HA) ,(1000 MT) ,(MT/HA)						

Rice

Production:

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

Consumption:

Rice is a staple food in Saudi Arabia that is served for lunch and dinner. A traditional dish called *kabsah* is widely consumed in Saudi homes. The majority of Saudis include rice as a major part of their daily diet. Most of the 12 million expatriates living in Saudi Arabia (from the Indian subcontinent and other Asian countries) are also large consumers of rice. Saudi Arabia's rice per capita consumption is estimated at 35 kg/year. For MY2017/18, total rice consumption is estimated at 1 million MT, a reduction of about 28 percent from USDA's official estimate. While firm population estimates are not available, estimated consumption is reduced due to what appears to be the departure of hundreds of thousands of expatriates in 2017. The main reason for the departure of expats are the expatriates' dependents family tax, stricter enforcement of various Saudization programs, and a Saudi government

campaign that focuses on expelling residence and labor law violators from the country. The three Saudi government measures will continue to be stringently enforced this year.

Total rice consumption is expected to increase by about 2 percent to 1.1 million in MY 2018/19 due to mainly an increase in foreign visitors to Makkah to perform the *hajj* and *umrah* rituals. In the past five years, the total number of visitors who came to Saudi Arabia to perform *hajj* and *umrah* has increased by 50 percent to 12 million visitors by the end of 2017. The Saudi government expects the number to reach 15 million by the end of 2020 as massive expansion projects at the two holy mosques in Makkah and Medina, as well as other infrastructure projects, are completed. One of the government's economic diversification initiatives to reduce the economy's reliance on oil is to double the number of pilgrims and tourist visitors to the Kingdom by 2030. As such, rice consumption is forecast to increase significantly in the next few years.

Basmati (aromatic rice from the Indian subcontinent) is the most popular rice variety in the Saudi market. The American long-parboiled and medium-grain Calrose rice varieties are well known, but Saudi consumers' preference for these varieties has 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.

Trade:

Private companies freely import rice into Saudi Arabia. They are not assessed a duty, but no import subsidy is provided. In MY 2016/17, Saudi Arabia imported approximately 1.108 million MT of rice, a decrease of about 21 percent compared to the USDA's official estimate of 1.4 million MT. According to trade sources, the main reason for lower imports last marketing year was reduced demand due to the departure of a large number of foreign workers. There is no official data on rice ending stock levels.

MY 2017/18 rice imports are estimated at 1.05 million MT, down by about 28 percent from the official USDA estimate of 1.45 million MT due to reduced demand. Post projects MY2018/19 imports at 1.1 million MT, an increase of five percent compared to estimated MY2017/18. This is mainly to maintain stock levels and to account for a slight increase in demand as the number of foreign visitors to Makkah to perform the *hajj* and *umrah* rituals increases.

India remains the dominant rice supplier to the Saudi market. It controlled approximately 74 percent of the market in MY 2016/17 by exporting an estimated 816,000 MT to Saudi Arabia. This was a decrease of about 12 percent compared to its exports of about 925,228 MT in MY 2015/16. 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 2016/17, Basmati varieties accounted for 85 percent of India's total rice exports to the Saudi market. Basmati is the highest-priced rice variety 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	$29.6-$32.90
Indian Long Grain Sella (parboiled) Basmati Rice	16.51-19.59

Thai Long Grain Fragrance Rice	16.6
American Long Grain Parboiled Rice	$9.32-14.67
American Medium Grain Calrose Rice	$16.67

Source: Riyadh based large retail chain

The United States was a distant second in rice exports to Saudi Arabia in 2017. Exports from the U.S. accounted for about 11.3 percent of total Saudi imports, or 123,471 MT, an increase of approximately 2 percent over the previous marketing year. In MY 2016/17, the quantity of U.S. long grain rice increased by six percent to 84,682 MT while quantity of imported U.S. medium- grain Calrose rice decreased by eight percent to 39,102. The export prices are the main reasons for the changes in the quantities of imported U.S. rice varieties. American long grain parboiled rice accounted for approximately 68 percent of total U.S. rice exports to Saudi Arabia last year.

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.

Pakistani was a distant third largest rice exporter to Saudi Arabia, followed by Thailand. In My206/17, Pakistan exported an estimated 92,000 MT of rice to Saudi Arabia, a decrease of more than 12 percent. Thailand's rice exports were down by 14 percent to 59,411 MT last marketing year compared to a year earlier.

Saudi Rice Imports in MT				
	MY2015/16 (Jan-Dec 2016)		**MY2016/17 (Jan-Dec 2017)**	
Origin	**Quantity**	**Market Share**	**Quantity**	**Market Share**
India	925,228	75%	816,000	74%
U.S.	122,551	10%	125,000	11%
Pakistan	105,129	8%	92,000	8%
Thailand	69,259	6%	59,411	5%
Other Countries	15,099	1%	15,585	1%
Total	**1,237,266**	100%	**1,107,996**	100%

Source: Global Trade Atlas and Saudi Customs

Competitors' Activities

Many of the Saudi rice companies that import Indian rice allocate a significant part of their marketing budgets to promote their own brand names in newspaper, radio and billboard advertising. Indian and

Pakistani rice exporters often participate in domestic food shows in Jeddah and Riyadh, where they provide buyers with point-of-sale materials. Promotions coupled with product tasting are also organized occasionally in local supermarkets. Promotional activities of the U.S. rice industry are mostly targeted at rice importers and are focused on trade servicing.

Production, Supply and Demand Data Statistics:

Rice, Milled	2016/2017		2017/2018		2018/2019	
Market Begin Year	Jan 2017		Jan 2018		Jan 2019	
Saudi Arabia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	0	0	0	0	0	0
Beginning Stocks	350	350	300	308	0	288
Milled Production	0	0	0	0	0	0
Rough Production	0	0	0	0	0	0
Milling Rate (.9999)	0	0	0	0	0	0
MY Imports	1400	1108	1450	1050	0	1100
TY Imports	1400	1108	1450	1050	0	1100
TY Imp. from U.S.	0	125	0	130	0	135
Total Supply	1750	1458	1750	1358	0	1388
MY Exports	0	0	0	0	0	0
TY Exports	0	0	0	0	0	0
Consumption and Residual	1450	1150	1500	1070	0	1090
Ending Stocks	300	308	250	288	0	298
Total Distribution	1750	1458	1750	1358	0	1388
Yield (Rough)	0	0	0	0	0	0
(1000 HA) ,(1000 MT) ,(MT/HA)						