

**Required Report:** Required - Public Distribution

**Date:** April 13, 2022

**Report Number:** JO2022-0002

**Report Name:** Grain and Feed Annual

**Country:** Jordan

**Post:** Amman

**Report Category:** Grain and Feed

**Prepared By:** Mohammed Khraishy, Agricultural Specialist and Elizabeth Mello, Senior Regional Agricultural Attaché

**Approved By:** Regional Agricultural Counselor Elizabeth Mello

**Report Highlights:**

FAS Amman (Post) forecasts Jordan's wheat imports in MY 2022/23 to reach 1.3 million MT driven by fears of war. The Russian war on Ukraine has a direct impact on Jordan, as most of Jordan's wheat and barley come from Black Sea. U.S. corn and rice imports are forecast at 100,000 MT and 70,000 MT respectively, and the U.S. is the leading supplier of rice to the Jordanian market.

**Executive Summary:**

The Hashemite Kingdom of Jordan is among the poorest water resourced countries on earth. Water scarcity is the limiting factor of the country's ability to grow crops. Jordan is classified as a net food importing country, as a result, Jordan's domestic production of cereals is negligible.

FAS Amman (Post) forecasts Jordan's wheat production in marketing year (MY) 2022/23 to reach 30 thousand metric tons (TMT). Wheat imports are forecast to reach 1.3 million MT. The Government of Jordan (GoJ) has gradually been implementing a practical food security strategy based on purchasing wheat and barley and building up an inventory inside the country. Barley consumption is expected to decrease to 720 TMT, as the rainy season has benefitted the pasture growth. FAS Amman forecasts Jordan's U.S. rice imports in MY 2022/23 at 70 TMT and U.S. corn at 100 TMT, respectively, with U.S. rice maintaining its position as the leading supplier of the Jordanian market, although the supply was shortened by the California drought and the container freight crisis.

In MY 2021/22, Jordan's wheat consumption is forecast to reach 960 TMT. Wheat imports are not expected from the United States due to higher freight costs relative to other origins, especially the Black Sea region.

In MY 2022/23, corn imports are forecast to increase to 950 TMT, with U.S. origin corn expected to supply 100,000 MT. Imports and consumption fluctuation is expected due to the Black Sea war and the COVID-19 impact on market instability, coupled with fears of feed shortage; all are driving purchase decisions.

Rice imports will amount to 220,000 MT, of which the U.S. will be the top supplier with 70,000 MT. U.S. industry market development efforts continue to pay dividends.

**Commodities:****Wheat****Production:**

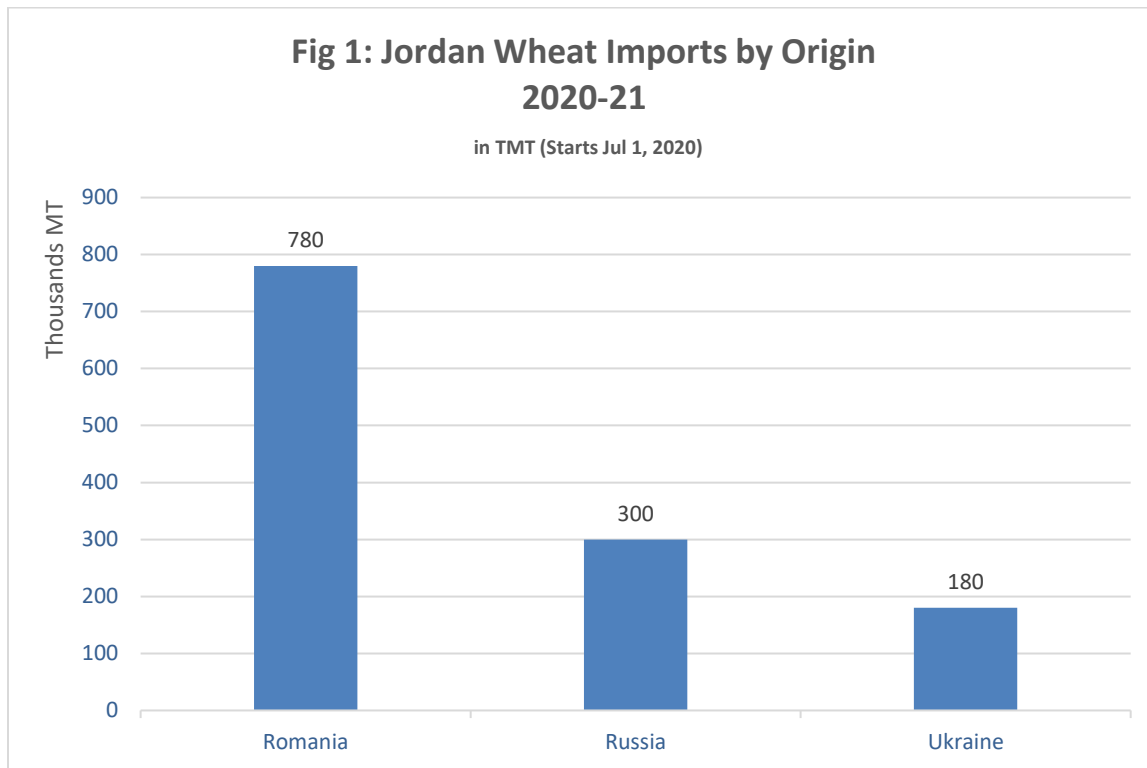
In general, Jordan's wheat production is negligible. In MY 2022/23, due to average rainfall, production is expected to slightly increase at 30 TMT, providing close to one week of the country's annual consumption needs. Wheat yield is declining due to prevailing drought conditions over the last few years, the decline is driven by climate change, desertification, and seed genetics dilution.

**Consumption:**

In MY2022/23, FAS Amman forecasts consumption at 960 TMT, unchanged from MY 2021/22. Jordan's population in 10 years has almost doubled from 6.2 to 10.8 million inhabitants. The Syrian crisis and influx of refugees to Jordan increased consumption by approximately 500 TMT (83 percent) in 2022. Local pita bread is the main staple of the Jordanian diet, the most basic food in the Middle East. Keeping bread prices affordable is an important objective of the GOJ and they have managed to reform (from product subsidy to a direct beneficiary subsidy) the bread subsidy without causing political unrest. More information on this topic can be found in the policy section of this report.

**Trade:**

In MY 2022/23, wheat imports are expected to rise to 1.3 MMT to meet the expansion in storage to mitigate challenges associated with the Black Sea war and COVID-19. The government is aiming to build up reserves to at least 1.5 years' worth of consumption but doesn't have a target date for this endeavor. If this is met will be determined by future international wheat prices and availability. The top wheat origin is expected to remain unchanged from MY 2020/21 with Romania as the leading port of supply. During this time of conflict in the region, Romanian wheat is being consolidated and transhipped through neighboring countries, including Russia, Ukraine, Hungary, Bulgaria and Serbia. The war on Ukraine will change the export map into a new shape. Jordan is not expected to import any wheat from the United States in MY2022/23.



Source: Jordan Department of Statistics (JDoS)

**Stock**

In MY MY2022/23, Post forecasts beginning stocks at 993 TMT inside the country and 400-500 TMT is contracted for (purchased) at sea and uploaded at port of origin. Jordan is building up a strategic inventory enough for two years to confront market instability relating to COVID-19 and Black Sea turmoil. MY 2023 ending stock is expected at 1.3 MMT.

The GoJ has finalized its project to expand local silo capacity at the new port in Aqaba; with a Panamax carrying capacity where the new silos are located. As projects are being completely, they are immediately utilized to capacity. An additional 300 TMT has been constructed as bunker storage; a traditional storage method historically used for paddy rice. There is bunker storage in different parts of Jordan to meet its food security objectives, not only for Jordan but also to serve the region.

**Policy:**

The GoJ's [Ministry of Industry, Trade and Supply \(MIT\)](#) is the sole customer of wheat from international suppliers through a competitive process by the local representatives of international companies. The process includes purchasing the lowest price within the preset specifications. On many occasions MIT would turn down the purchase process whenever the technical staff is convinced the offered price is higher than the average market or that near future prices would be better.

Jordan's wheat bread, known as "unified bread" (in Arabic as *mowahad*), is now minimally subsidized by the government, the subsidy is directed towards eligible Jordanian citizens rather than to the product (bread). The GoJ has reformed the subsidy system to target benefits to low-income families by providing direct cash subsidies. According to the GOJ, the policy enabled the government to improve the efficiency of the subsidy program and eliminated 90 percent of waste in consumption and subsidy abuse by placing the responsibility of the subsidy on the specifically targeting poor families to make their own bread buying decisions with their cash payments.

MIT sets the price to sell the Unified (*mowahad*) bread at \$.45 per kg (compared to \$.22 per kg before the subsidy reforms). Whenever there is an increase in the cost of an input used for making bread, such as fuel, electricity tariffs or the minimum employees payment; the GoJ lowers the flour price to compensate for the increase.

**Marketing:**

MIT sells wheat to mills at the government's preset price, which is based on a moving average of the inventoried wheat's cost, including purchasing, storage, and transportation costs. The mills subsequently sell the flour to bakers under MIT's supervision. The reforms in the subsidy system closed gaps where bakers previously benefited by channeling the subsidized flour into other unsubsidized purposes. The reform has narrowed the gaps so that this practice is not feasible anymore. Many businesses that were abusing and dependent on the subsidy system were phased out.

The flour is sold to bakers at two prices: the all-purpose flour is sold at a market price, which is the markup cost on milling fees from the wheat sold by the government (at the beginning of 2022 at a market price of wheat is \$212 per MT), and the subsidized flour is sold at \$261-282 per MT. MIT lowers the price of the subsidized flour (for subsidized bread) in the case when there is an increase in the fuel price at a proportional rate (to make up on bakers for the average fuel price increase used in baking). Fluctuations in the price of oil do not affect the subsidized price.

**Table 1.**  
**Production, Supply and Distribution:**

Wheat Market Year Begins Jordan	2020/2021		2021/2022		2022/2023	
	Jul 2020		Jul 2021		Jul 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	20	30	30	30	0	30
Beginning Stocks (1000 MT)	370	370	526	700	0	993
Production (1000 MT)	24	27	25	28	0	30
MY Imports (1000 MT)	1228	1228	1100	1250	0	1300
TY Imports (1000 MT)	1228	1228	1100	1250	0	1300
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	1622	1625	1651	1978	0	2323
MY Exports (1000 MT)	81	10	100	10	0	90
TY Exports (1000 MT)	81	10	100	10	0	90
Feed and Residual (1000 MT)	15	15	15	15	0	15
FSI Consumption (1000 MT)	1000	900	1100	960	0	960
Total Consumption (1000 MT)	1015	915	1115	975	0	975
Ending Stocks (1000 MT)	526	700	436	993	0	1258
Total Distribution (1000 MT)	1622	1625	1651	1978	0	2323
Yield (MT/HA)	1.2	0.9	0.8333	0.9333	0	1
(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 2022/2023 = July 2022 - June 2023						

## Commodities:

### Barley

#### Production:

Production of barley is negligible. Prevailing drought severely affecting barley production. Most barley is used for animal grazing during its early growth stages.

#### Consumption:

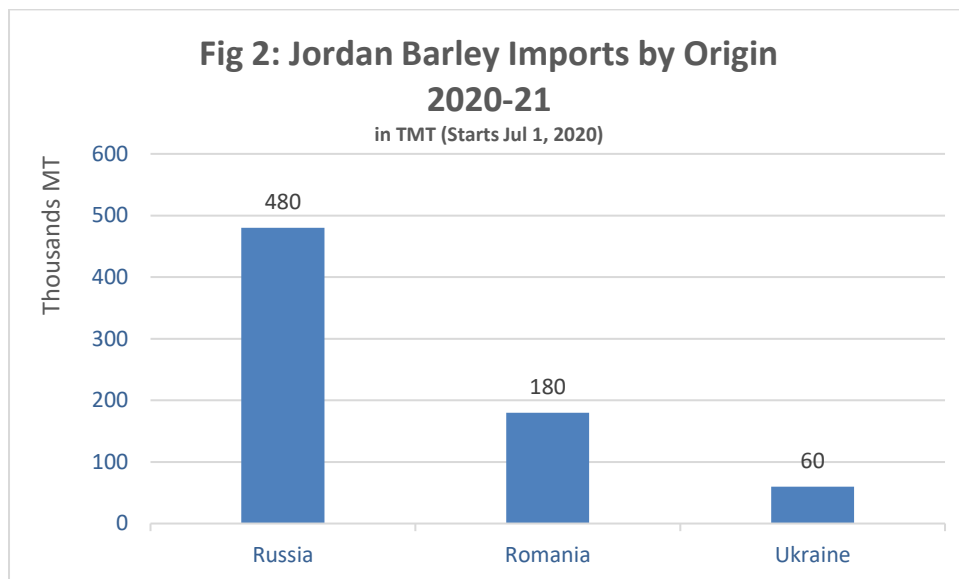
The current rainy season was especially long, so sheep will have more time grazing on rangeland, therefore post forecasts barley consumption will decrease in MY MY2022/23 to 720 TMT.

The local (Awasi) sheep are known for their exquisite palatability in the GCC countries and attract premium prices. Consequently, Jordan depends on lower priced imported sheep, to meet its domestic needs, mainly imported from Australia, New Zealand, and Romania. Most of the barley is used for sheep feed and to a lesser extent in dairy cattle and poultry rations. Barley use has dropped significantly after the GoJ adopted an animal tag system 10 years ago. Each shepherd receives subsidized barley according to the actual number of tagged animals. GoJ is subsidizing each MT of imported barley at \$50.

#### Trade:

In MY 2022/23, total barley imports are expected at 1100 TMT, similar to FY 2020/21. The increase in 20/21 is a response to a standing Government of Jordan policy to build up a reserve inside Jordan to face

future drought, Black Sea war and consequent market fluctuations. Barley suppliers are Black Sea basin countries with Romania being the top supplier. No barley imports from the U.S. have been recorded for two decades.



Source: JDoS

The GoJ purchased barley's selling price is decided by a GoJ committee in response to current variables that does include but not limited to prevailing weather. The GoJ sets the selling price of the subsidized barley, currently \$247 per ton, and the non-subsidized barley is \$388 per ton. Any dairy farmer who does buy it at \$388 per ton, the same price is paid if the sheep herder wants to buy more than his allocated ration.

On a monthly basis a government committee from Ministry of Agriculture (MoA), Ministry of Industry and Trade (MIT) and other GoJ agencies convene to decide upon the subsidy as allocated by the GoJ approved budget, the current economic conditions, the prevailing weather, the season and any other consideration then set the barley price to herders, usually MIT calculate the expenses of government services associated with transportation, storage and other logistics associated with barley delivery, then calculate the moving average of the cost including the purchase price, then discount the subsidy.

The system allows for arbitrage when significant price swings occur, as traders can quickly take advantage and profit by offering a lower price than the government's set price, effectively undercutting the program. The percentage of that trade varies but is usually less than 10% of the barley trade size.

**Stocks:**

Post expects in MY 2022/230 an increase in GOJ's inventory as a government policy, beginning stocks are expected to stay at 545,000 MT and end at 950,000, nearly doubling. This is due to GoJ policies that

aim to increase the inventory for food security reasons heightened by market volatility, especially price and freight costs fluctuations due to COVID-19 and Black Sea war impacts on international markets.

Barley's inventory volume is within the GoJ's policy of strategic stocks that requires meeting 12 months of consumption needs, both inside Jordan and contracted for.

**Policy:**

The Ministry of Agriculture (MoA) has announced it will cut down an extra one million heads of sheep and goats registered to receive the subsidized barley. MoA considered the 4.9 million head number an abuse to the subsidy system and farmers must prove their real herds head count, according to records and the animal tag system is less than 3.9. In return, MoA is committing itself to make it up to farmers by increasing the subsidized ration per head from 20 kg to 25 kg during the winter seasons, breeding season, and no grazing (November through end of February).

Only sheep and goats owners receive subsidized barley at a discounted price. This program excludes cattle and poultry farmers from receiving subsidized barley.

**Marketing:**

MIT is the predominant barley importer in Jordan. MIT solicits bids through traders that meet the stipulated standards. Once it purchases the barley, MIT distributes and sells the barley at the subsidized price to herders based on the number of tagged animals that are recorded in the database.

**Table 2.  
Production, Supply and Distribution:**

Barley Market Year Begins Jordan	2020/2021		2021/2022		2022/2023	
	Jul 2020		Jul 2021		Jul 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	25	25	25	25	0	25
Beginning Stocks (1000 MT)	94	94	60	170	0	545
Production (1000 MT)	20	26	20	25	0	25
MY Imports (1000 MT)	546	750	800	1100	0	1100
TY Imports (1000 MT)	658	750	800	1100	0	1100
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	660	870	880	1295	0	1670
MY Exports (1000 MT)	0	0	0	0	0	0
TY Exports (1000 MT)	0	0	0	0	0	0
Feed and Residual (1000 MT)	600	650	800	700	0	670
FSI Consumption (1000 MT)	0	50	0	50	0	50
Total Consumption (1000 MT)	600	700	800	750	0	720
Ending Stocks (1000 MT)	60	170	80	545	0	950
Total Distribution (1000 MT)	660	870	880	1295	0	1670
Yield (MT/HA)	0.8	1.04	0.8	1	0	1

(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 2022/2023 = October 2022 - September 2023

**Commodities:**  
**Corn**

**Production:**

Jordan's corn production is negligible, with annual production totaling less than 10,000 MT. Domestically produced corn is mainly used for human consumption.

**Consumption:**

In MY 2022/23, corn consumption is forecast at 955 TMT, a small decrease from USDA forecast in MY 2021/22 consumption of 1000 TMT. The poultry industry is optimistic of the local demand outlook and is trying to meet local demand. The explosive growth has resulted in three consecutive years of oversupply of poultry with persistent low prices that put many small and medium sized farmers out of business.

Jordan's poultry industry is considered the biggest agri-business sector, with an investment value of around \$4.5 billion. Local broiler production is currently around 200 TMT per year, while egg production increased more than 60 percent over the last two years, currently producing almost a billion eggs.

**Trade:**

Post forecasts imports at 1000 TMT in MY 2022/23, similar to MY 2020/21, U.S. origin corn imports are forecast at 100,000 MT. Post continuous engagement with GoJ to improve sampling and testing of corn into a more trade friendly system, a GoJ interagency committee has been formed to review the current system. The expected result is relaxation on broken kernel percentages, which has been incentivized by the shortage of supply. Should the process go in the right direction, it would increase imports of U.S. corn.

The Jordanian market is still dominated by Argentina, supplying 60 percent of all corn imports, with the United States supplying only 5 percent (figure 3). [The Jordan-U.S. Free Trade Agreement](#) no longer provides an advantage for U.S. corn, as all imported corn is exempt from tariffs. Additionally, South America's corn, although less desirable by farmers due to their own beliefs; is less nutritive, yet it comes in a more desirable form; a clear, non-dusty grain. Argentine exporters are more versatile, accommodating shipments of 10-15 TMT that the market requires.

**Stock**

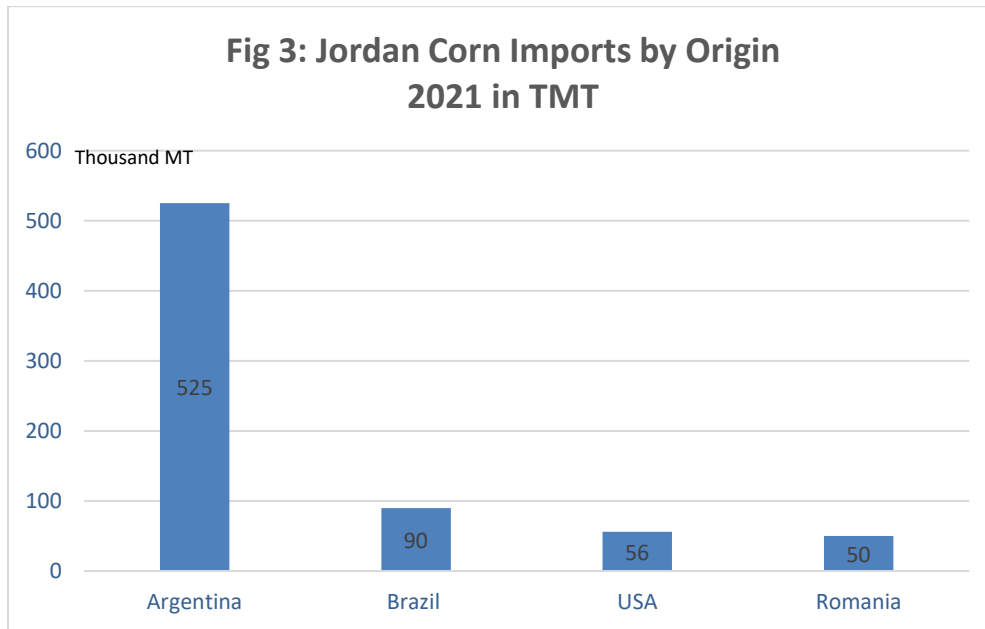
Only a nominal amount of corn is stored on-farm by poultry farmers to meet their monthly needs as no adequate storage system has been developed in Jordan. Some investors have recently enlarged their storage facilities, this will meet the need produced by Black Sea war's grain crisis.

**Policy:**

There are no restrictions on corn trade in Jordan, and specifications for corn are similar to U.S. standards, except for the quality trait, Broken Kernels Percentage (BKP) that considered as a basic in Jordan. Repeatedly consignments that test above 7.5 percent BKP faced rejections, although the GoJ is currently sending signals of easing this condition. Corn consignments that exceed the established maximum residue limits for aflatoxins, which are equivalent to U.S. standards, will be rejected. Post



recently met with the GOJ on the BKP issue, and the Ministry of Agriculture agreed to begin accepting the FGIS certificate. It is in process of finalizing this change in policy.



Source: JDoS

**Marketing:**

Corn in Jordan is imported and distributed through private sector traders who usually unload corn directly to trucks that deliver it immediately to dairy and poultry farms.

**Table 3.  
Production, Supply and Distribution:**

Corn Market Year Begins Jordan	2020/2021		2021/2022		2022/2023	
	Oct 2020		Oct 2021		Oct 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	1	0	1	2	0	2
Beginning Stocks (1000 MT)	62	62	41	37	0	72
Production (1000 MT)	10	0	10	10	0	10
MY Imports (1000 MT)	829	855	1000	1000	0	1000
TY Imports (1000 MT)	829	855	1000	1000	0	1000
TY Imp. from U.S. (1000 MT)	90	90	0	56	0	100
Total Supply (1000 MT)	901	917	1051	1047	0	1082
MY Exports (1000 MT)	20	20	20	20	0	25
TY Exports (1000 MT)	20	20	20	20	0	25
Feed and Residual (1000 MT)	830	850	1000	950	0	950
FSI Consumption (1000 MT)	10	10	5	5	0	5
Total Consumption (1000 MT)	840	860	1005	955	0	955
Ending Stocks (1000 MT)	41	37	26	72	0	102
Total Distribution (1000 MT)	901	917	1051	1047	0	1082
Yield (MT/HA)	10	0	10	5	0	5

(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 2022/2023 = October 2022 - September 2023

**Commodities:****Rice, Milled****Production:**

Jordan is one of the driest countries in the world and does not produce rice at all, due to the crop's high water demands.

**Consumption:**

Rice consumption in MY 2022/23 is forecasted to stay at 220 TMT similar to MY 2021/22. Rice is a Jordanian diet staple and is widely used in one of the country's traditional festive dishes called "Mansaf." Jordan has an average annual consumption of about 20 kg of rice per person. The preferred variety is medium grain (Camolino), which constitutes over 50 percent of imports, followed by long grain white rice, and basmati and jasmine rice. In MY 2022/23 consumption is expected to stay 206 TMT a 7 percent decrease from USDA forecast in MY 2021/22.

The consumption of rice usually goes up during parliamentary elections, as contestants tend to sponsor big feasts of Mansaf to lure their constituents.

**Trade:**

In MY 2022/23, imports are expected to remain at 220 TMT, unchanged from MY 2021/22. U.S. market share for rice has plunged down at nearly 35 percent, supplying 70 TMT in MY2021/22, uncertainty is binding the future market share, due to the spike in container freight costs, the shortage in supply, and the emerging Russian market share. Prices have also increased as a result of drought in California; which is the preferred source of medium grain rice.

Indian rice is taking more market share from all suppliers due to price competitiveness, as COVID-19 has created more economic pressure on Jordanian families and consumers. Consumption fluctuates due to the time of year (Ramadan is a big time for rice consumption) and economic situation among consumers. Rice is a more expensive relative to alternative commodities, that is why the elasticity of demand and consumption is relatively not linear.

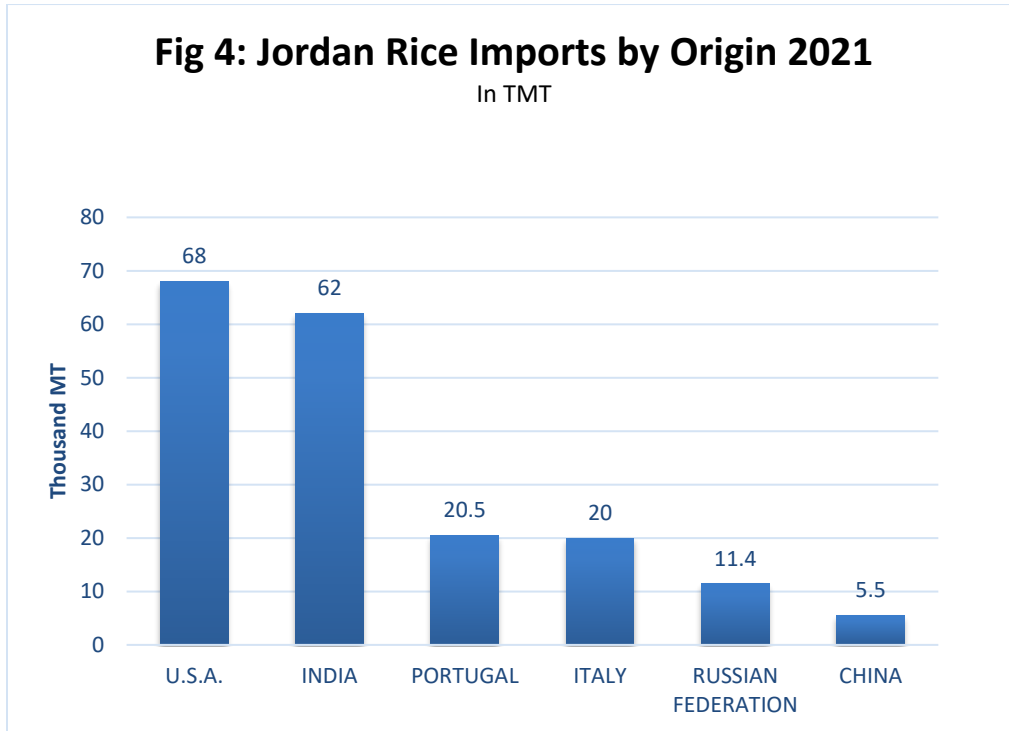
Although the price is relatively higher, the U.S. industry's market development efforts have paid off to keep U.S. market share from deteriorating in difficult economic times. U.S. rice industry marketing efforts have generated loyalty among Jordanian consumers who have developed a strong preference for U.S. origin rice. This loyalty was demonstrated by the increase of demand by traders who continue to seek to import from the U.S. and it is the reason of possible counterfeiting of other origins' rice with the U.S. This has taken place by companies' labeling rice as U.S. when it is from other sources.

Major rice suppliers include India, whose market share has doubled during the last few years. Others include Portugal, Italy, and Russia (figure 4). Most Asian rice is long grain that falls into two categories. The first is long grain white rice, which is of lower price and constitutes most of the Asian imports. The second category is the aromatic and basmati rice that commands a premium over the medium rice; however, it is less preferred in local recipes. The regular long grain market share has grown from less

than 25 to almost 30 percent over the last five years. The proximity of European medium rice does make it the major competitor to the California's.

**Stocks:**

Since rice trade is done by the private sector and there is no government policy on strategic stocks for this commodity, minimal stocks are maintained for this commodity.



Source: JDoS

**Policy:**

There are no restrictions on rice trade in Jordan, and specifications are similar to U.S. grading, MRL, and BKP standards.

Since the import duty on rice is zero for all origins, there are no advantages offered by the U.S.-Jordan Free Trade Agreement.

**Marketing:**

Rice in Jordan is imported and distributed through private sector traders that package and provide a continuous supply to retailers as soon as it is discharged from the vessels.



The U.S. Ambassador touring a private business inventory of U.S. rice in Jordan.

**Table 4.  
Production, Supply and Distribution:**

Rice, Milled Market Year Begins Jordan	2020/2021		2021/2022		2022/2023	
	Jan 2020		Jan 2021		Jan 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	0	0	0	0	0	0
Beginning Stocks (1000 MT)	16	16	16	16	0	26
Milled Production (1000 MT)	0	0	0	0	0	0
Rough Production (1000 MT)	0	0	0	0	0	0
Milling Rate (.9999) (1000 MT)	0	0	0	0	0	0
MY Imports (1000 MT)	200	200	220	220	0	220
TY Imports (1000 MT)	200	200	220	220	0	220
TY Imp. from U.S. (1000 MT)	0	75	0	70	0	70
Total Supply (1000 MT)	216	216	236	236	0	246
MY Exports (1000 MT)	0	5	0	5	0	5
TY Exports (1000 MT)	0	5	0	5	0	5
Consumption and Residual (1000 MT)	200	195	220	205	0	206
Ending Stocks (1000 MT)	16	16	16	26	0	35
Total Distribution (1000 MT)	216	216	236	236	0	246
Yield (Rough) (MT/HA)	0	0	0	0	0	0

(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 2022/2023 = January 2023 - December 2023

**Attachments:**

No Attachments