

Required Report: Required - Public Distribution

Date: March 17, 2022

Report Number: MX2022-0020

Report Name: Grain and Feed Annual

Country: Mexico

Post: Mexico City

Report Category: Grain and Feed

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Report Highlights:

Mexico's corn, wheat, and sorghum production in marketing year (MY) 2022/23 are forecast marginally lower than the previous year due to rising input costs, reduced government support, and expected adverse weather conditions from La Nina. On the other hand, rice production is projected to increase slightly based on the return to service of irrigation infrastructure in certain growing regions. Feed grain demand will continue to grow in MY 2022/23, led by corn, facilitating modest growth in imports. The United States is expected to remain Mexico's principal grain supplier due to established trading relationships and supply chain logistics. Mexico's grain production and imports are subject to its biotechnology regulatory policy, which has become increasingly uncertain under the current administration.

EXECUTIVE SUMMARY

The outlook for Mexican grain production in marketing year (MY) 2022/23 is mixed, with corn, wheat, and sorghum production forecast marginally lower and rice production slightly higher. The forecast for corn, wheat, and sorghum is down due to rising input costs, reduced government support, and expected adverse weather from La Niña, while the rice forecast is up based on the renewed functioning of irrigation infrastructure in certain growing regions.

Overall feed grain demand is expected to continue growing steadily at approximately 1.5 percent in MY 2022/23. Corn continues to be the preferred feed grain in Mexico based on its nutritional attributes. Meanwhile, demand for grain for human consumption is forecast to grow more slowly, slightly below the population growth rate of about one percent.

Mexico will continue to be a major importer of basic grains, with imports forecast to show modest growth in MY 2022/23 to meet growing demand for livestock feed. The United States is expected to remain Mexico’s principal supplier due to logistical advantages and existing business relationships.

Mexico’s grain production and imports are subject to its biotechnology regulatory policy, which has become increasingly uncertain under the current administration. The planting of genetically engineered (GE) corn is restricted by a collective lawsuit – filed by a group of citizen petitioners – claiming that “GE corn affects the human right to conservation, sustainable use, and fair and equitable sharing of the biological diversity of native corn.” Additionally, on January 1, 2021, a presidential decree entered into force calling for a phase-out of biotech corn for human consumption by January 2024.

WHEAT

Table 1: Mexico, Wheat Production, Supply, and Demand for MY 2020/2021 to MY 2022/2023

Wheat Market Year Begins Mexico	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)	556	556	550	550	0	550
Beginning Stocks (1000 MT)	385	385	262	262	0	437
Production (1000 MT)	2965	2965	3275	3275	0	3270
MY Imports (1000 MT)	4724	4724	5100	5100	0	5200
TY Imports (1000 MT)	4724	4724	5100	5100	0	5200
Total Supply (1000 MT)	8074	8074	8637	8637	0	8907
MY Exports (1000 MT)	612	612	800	800	0	850
TY Exports (1000 MT)	612	612	800	800	0	850
Feed and Residual (1000 MT)	200	200	300	300	0	350
FSI Consumption (1000 MT)	7000	7000	7100	7100	0	7300
Total Consumption (1000 MT)	7200	7200	7400	7400	0	7650
Ending Stocks (1000 MT)	262	262	437	437	0	407
Total Distribution (1000 MT)	8074	8074	8637	8637	0	8907
Yield (MT/HA)	5.3327	5.3327	5.9545	5.9545	0	5.9455
(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						

Production

With positive growing conditions offset by increased production costs, the MY 2022/23 (July-June) wheat crop is forecast basically stable at 3.27 million metric tons (MMT). Likewise, overall harvested area is expected to remain unchanged in MY 2022/23, based on official data from the Secretariat of Agriculture and Rural Development (SADER) as of January 31, 2022. Industry sources report that a substantial increase in the price of inputs such as fertilizer and fuel have negatively impacted planting intentions for the 2022 spring-summer crop cycle as well as the 2021/22 fall-winter cycle. Local contacts indicate that production costs per hectare have risen substantially. In addition, relatively low prices for wheat have encouraged many growers to switch from wheat to corn production in recent years, a trend that is expected to continue. Along with the price advantage, corn is attractive alternative to wheat due to its higher yields in irrigated areas. On the other hand, corn requires more water than either bread wheat or *crystalino*, so concerns about water availability may eventually provoke a shift back to wheat planting, particularly the less water-intensive *crystalino*. Along with higher input costs, contacts cite limited government support to commercial growers (see Policy section) as a negative influence on planting intentions for wheat and other coarse grains.

On the other hand, favorable weather conditions in late 2021 and January 2022 in the main growing region of Sonora are expected to positively impact wheat production, with adequately low temperatures facilitating the development of the wheat tillers, or stems. Weather in the flowering months of March and April will be key for producers. Assuming good conditions, Sonora growers expect an average yield of 7.1 metric tons per hectare (MT/ha) in the 2021/22 fall-winter crop cycle. Sonora has approximately 278,000 ha of wheat planted for this marketing year, of which approximately 70 percent is durum wheat (called *crystalino* in Mexico). The National Chamber of the Wheat Milling Industry (CANIMOLT) estimates that *crystalino* wheat yields surpass 6.5 MT/ha nationally, while bread wheat yields have increased from 5.7 MT/ha to 6.0 MT/ha.

In the states of Sonora and Baja California, a shift from bread wheat to *crystalino* that began in 2021 has continued through the 2021/22 fall-winter crop cycle. Industry sources estimate that approximately 1.7 MMT of *crystalino* wheat will be produced and 1.5 MMT of bread wheat. Although this ratio of *crystalino* to bread production represent a reversal of that seen in MY 2019/20, it is a return to the typical relative production volumes of the two wheat types seen in previous years. According to local contacts, *crystalino* is more disease resistant, has higher yields, and requires less water than bread wheat. Additionally, the market for *crystalino* is more diversified, with demand for food processing use from both the domestic and export markets, as well as for animal feed. Finally, logistical constraints make domestic bread wheat less competitive in the major consumption centers in central and northern Mexico.

Wheat production in Mexico continues to be dispersed throughout the country, with the largest producing states being Sonora, Baja California, and Guanajuato, which together account for approximately 73 percent of total wheat production.

According to CANIMOLT, its miller members purchase a combined 2.1 MMT of domestically produced wheat annually. Some CANIMOLT members provide inputs and technical assistance to farmers to help boost wheat yields and ensure the crop meets protein levels and other quality standards required for flour production. This support includes the provision of hybrid seeds, fertilizer, herbicides, and extension services.

Consumption

Wheat is the number two cereal in the Mexican diet following corn, providing 10 percent of caloric intake and accounting for 40 percent of total Mexican household expenditure on cereals. Total wheat consumption is expected to reach 7.65 MMT in MY 2022/23, an increase of about 3 percent compared to the previous marketing year. Wheat demand for food, seed, and industrial use is forecast up marginally based on population growth and the post-COVID reopening of the hotel, restaurants and institutional (HRI) sector, while projected wheat use for feed is up about 17 percent on the price advantage compared to corn and other alternatives.

CANIMOLT reports that wheat milling output was approximately 7.2 MMT in 2021, an 8.2 percent increase compared with a year earlier. CANIMOLT expects wheat flour production to continue growing in 2022 to meet consumer demand for more healthy foods – which was stimulated by COVID-19 related health concerns – with wheat products considered healthy by Mexican consumers. CANIMOLT data from the largest mills indicate that consumption increased by 8.9 percent in 2021 compared to the previous year, with consumers increasing purchases of packaged wheat-based products for home consumption, including bread and pasta. The organization expects sustained consumption growth in 2022, but with a return to traditional outlets such as bakeries, restaurants, and schools, rather than packaged food for home use.

According to CANIMOLT, there continues to be a niche market in the pork sector for wheat-based feed, with demand from some Asian markets, including Japan and South Korea, reflecting positive consumer perceptions about the flavor of pork products made from wheat-fed swine.

Mexico's wheat milling capacity grew to 10.6 MMT per year in 2021, comprised of 88 wheat mills owned by eleven major companies. Currently the wheat flour sector is moving towards greater consolidation and concentration in the hands of fewer companies, but whether this trend continues will depend on policy decisions of the Mexican Competition Commission. The wheat flour sector is currently utilizing about 70 percent of available capacity, with 7.2 million MT of wheat transformed into 5.4 million MT of wheat flour and semolina in 2021. The growth in installed capacity is due to the purchase and improvement of existing wheat flour mills as well as the entry into operation of new mills.

Figure 1. Distribution of Wheat Flour Mills in Mexico



88 Wheat Flour Milling Plants with an annual installed capacity of 10.6 MMT. Metropolitan Area: 29.72%; Central West: 25.10%. South-Southeast: 18.34%; Northwest 12.79% and North 14.05%
 Source: CANIMOLT.

Trade

Forecast MY 2022/23 imports are expected to increase slightly to 5.2 MMT to meet increased feed and FSI demand in the face of slightly reduced production and increased exports. The United States continues to be Mexico’s leading wheat supplier due to quality and price considerations as well as the established supply chain.

Mexican exports, particularly *crystalino* wheat for pasta, are expected to increase about 6 percent in MY 2022/23 to 850,000 MT on favorable international prices and *crystalino*’s growing share in total domestic production in states such Sonora and Baja California. Mexico’s largest export markets continue to be Algeria and Venezuela.

Stocks

Stocks are expected to decrease to 407,000 MT in MY 2022/23 based on a projected increase in exports. Additionally, given the reliable availability of wheat from both domestic production and imports, industry sources indicate that millers generally do not feel the need to maintain large stores of the grain.

CORN

Table 2: Mexico, Corn Production, Supply, and Demand for MY 2020/2021 to MY 2022/2023

Corn Market Year Begins	2020/2021		2021/2022		2022/2023	
	Oct 2020		Oct 2021		Oct 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Mexico						
Area Harvested (1000 HA)	7143	7143	7200	7250	0	7200
Beginning Stocks (1000 MT)	3515	3515	3079	3079	0	3379
Production (1000 MT)	27346	27346	27600	27800	0	27600
MY Imports (1000 MT)	16498	16498	17300	17300	0	17500
TY Imports (1000 MT)	16498	16498	17300	17300	0	17500
Total Supply (1000 MT)	47359	47359	47979	48179	0	48479
MY Exports (1000 MT)	480	480	600	600	0	620
TY Exports (1000 MT)	480	480	600	600	0	620
Feed and Residual (1000 MT)	25600	25600	26000	26000	0	26400
FSI Consumption (1000 MT)	18200	18200	18200	18200	0	18210
Total Consumption (1000 MT)	43800	43800	44200	44200	0	44610
Ending Stocks (1000 MT)	3079	3079	3179	3379	0	3249
Total Distribution (1000 MT)	47359	47359	47979	48179	0	48479
Yield (MT/HA)	3.8284	3.8284	3.8333	3.8345	0	3.8333

(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

Production

Corn production for MY 2022/23 (October-September) is forecast marginally lower (0.7 percent) than the previous marketing year at 27.6 MMT, with an estimated harvested area of 7.2 million hectares. Industry contacts indicate that high costs for fertilizer, herbicides, and other inputs will prevent farmers from increasing planted area this marketing year, despite relatively high international corn prices. Likewise, higher input costs are likely to reduce producer investments in enhanced seeds, infrastructure, and other productive technologies. In addition, local analysts cite concerns about weather impacts from La Niña, with expectations of increased dryness and heat in center of the country and excessive moisture in the northern production areas.

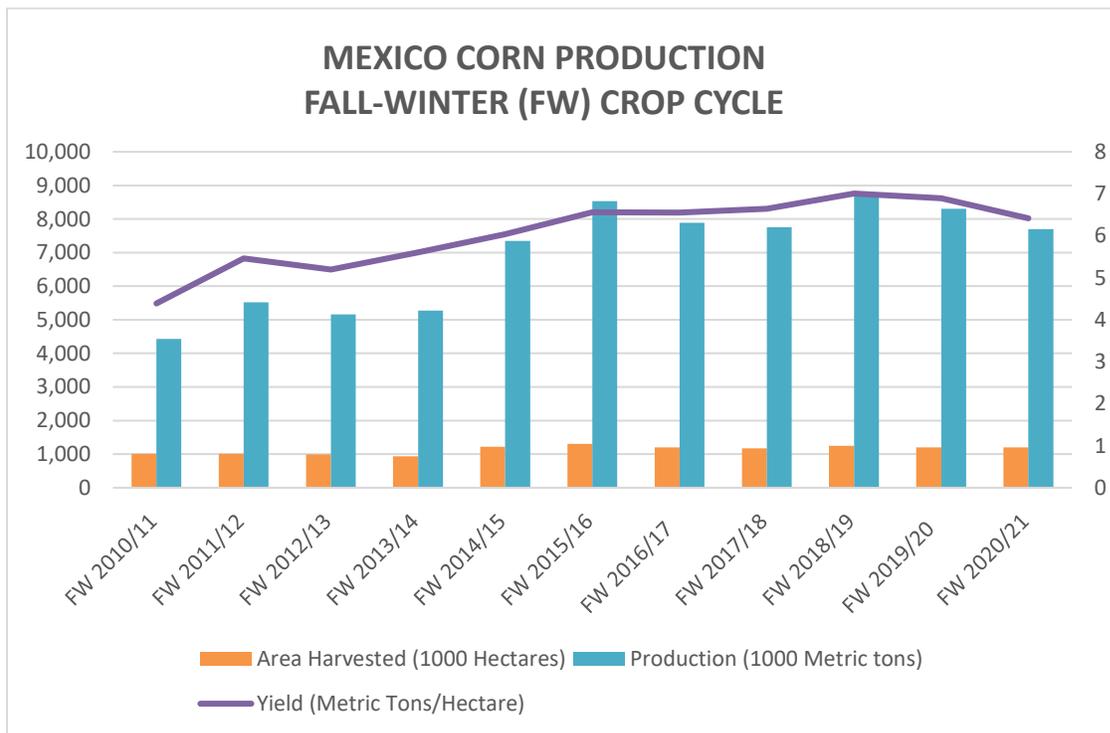
Local sources report that some farmers in Jalisco state have switched from corn to agave (for tequila) due to the latter crop being less water-intensive. Likewise, some producers in Sinaloa have switched from corn to more profitable – and less water-intensive – crops including chickpeas and dry beans. In addition, contacts attribute inadequate government support to commercial growers (see Policy section) for adverse impacts on planting intentions for corn and other coarse grains.

Mexico has two growing seasons for corn: the spring-summer season (planting April-August, harvest September-February) and the fall-winter season (planting November-February, harvest April-July), with the spring-summer season accounting for about 72 percent of the total annual crop. For the current planting season (fall-winter 2021/22), farmers in Sinaloa state had planted 446,000 hectares as of the third week of February, which represents 94 percent of reported planting intentions. Weather conditions have been favorable so far. Industry projections put production at 5.35 MMT for Sinaloa this crop season, based on a yield of 11.5 MT/ha, lower than the 11.85 MT/ha obtained in the fall-winter 2020/21 crop cycle. This projected reduction in yield is driven mainly by higher fertilizer prices, which is likely

to reduce the number of applications to the current crop. Another factor that could adversely impact yield is lower dam water levels compared to the previous year in the Guamúchil and Angostura areas.

In the state of Sonora, SADER planting data (as of January 31, 2021) put planting progress for the fall-winter 2021/22 season at about 14,000 ha, or 23 percent of reported planting intentions, which is 77 percent less than the planting progress achieved by the same date in 2021. This slower progress is attributed to water reservoirs being at 31.5 percent of their capacity, or 24 percent lower than water levels on the same date a year earlier.

Figure 2: Mexican Corn Production in Fall-Winter Crop Cycle, 2010-Present



The Post estimate for MY 2021/22 corn production is revised up slightly (0.7 percent) to 27.8 MMT, reflecting increased harvested area based on official (SADER) data as of January 31, 2022. Favorable weather conditions during the growing stage positively impacted yields and resulted in less crop damage than the average amount of damage in recent years. According to SADER data, the total area damaged during this crop cycle was 130,000 ha, compared to an average of about 300,000 ha during the last five years.

As a result of the favorable weather conditions, the 2021 spring-summer crop, harvested mainly in November and December, is reportedly of good quality. The crop cycle saw high input costs and lower farm gate prices, reducing farmers incentive to sell. Industry sources report that corn producers in some regions have opted to store their grain and wait for higher prices, with an estimated 300,000 MT to remain in warehouses through March. For example, farmers in Chihuahua have reportedly completed small volume sales to local ranchers and dairy farmers, while keeping the remainder in storage. In the Bajío region of western, central Mexico (mainly Jalisco, Michoacan, and Guanajuato states), an

estimated 20 to 25 percent of the white corn harvest was available in the regional market as of mid-February. In Chiapas, over 90 percent of the harvest had been completed by the third week of February. The average price paid to producers was around 6,200 pesos/MT (approximately USD 302/MT).

The average yield for the MY 2022/23 corn crop is forecast at 3.8333 MT/ha, marginally lower than the projected MY 2021/22 yield (3.8345 MT/ha) due to increased input costs that constrain investment in yield-boosting inputs. For example, fertilizer prices rose significantly throughout 2021 due to rising energy prices. Yields continue to vary significantly throughout Mexico depending on access to advanced technology.

Consumption

Total corn consumption is forecast at 44.6 MMT in MY2022/23, an increase of about one percent compared to the previous marketing year on population growth (0.9 percent), increased livestock and poultry production, and expansion in the starch, cereal, and snack sectors. For example, cornstarch production uses nearly 2.5 MMT of yellow corn annually.

The corn tortilla is the primary staple food in the Mexican diet, with a per capita tortilla consumption of 75 kilograms (kg) per year. However, industry sources report that corn flour demand for tortilla production, which has been stable during the last few years, is expected to remain flat in 2022 due to high corn prices. Tortilla prices rose significantly in 2021 (varying by location) due to rising input costs – mainly for corn, but also gas, electricity, paper, and others – which were passed on to consumers. According to local contacts, only a few tortilla shops have managed to keep prices at or below 19 pesos/kg. In Ciudad Juárez, Chihuahua, and other locations, the price of tortillas rose to 24 pesos/kg. In January 2022, the average tortilla price in Mexico's main cities, including Mexico City, Guadalajara, Morelia, Culiacan, and Merida, increased more than 16 percent compared to the same month a year earlier. In supermarket chains, the tortilla price increased about 16 percent, from 11.71 to 13.60 pesos/kg, while prices charged by traditional tortilla makers increased 16.5 percent, from 16.86 to 19.64 pesos/kg.

Along with tortilla production, feed use is another important component of Mexican corn demand, with the poultry sector still the leading consumer of feed grains in Mexico. The Mexican poultry sector is expected to continue to expand and modernize. According to the National Poultry Farmers Association (UNA), the egg and poultry meat sectors will grow 3 and 2.5 percent, respectively, in 2022. The beef and pork sectors are also projected to grow in 2022 based on the HRI sector's continuing recovery from the impacts of COVID-19. In addition, Mexican beef is finding new niches in the U.S. market due to developing consumer preferences for leaner cuts, smaller portion sizes, and lower-priced products that Mexico can provide. Japan and South Korea continue to demand low-cost Mexican beef and products, including offal. In the case of the pork sector, Mexico's swine herd stands at around 21 million head in 2021. Mexican pork producers continue to vertically integrate production chains, invest in technology, and implement biosafety measures to reduce swine mortality. In addition, due to shrinking household incomes, consumers increasingly demand budget pork products as an alternative, lower-cost animal protein.

**Mexico: Feed Ingredients Production
(1000 Metric Tons)**

Calendar Year:	2014	2015	2016	2017	2018	2019	2020	2021
Compound Feed Capacity	36,200	37,000	38,000	38,358	38,500	40,240	42,415	43,453
Total Compound Feed Produced	29,906	31,075	32,440	33,522	35,057	36,475	37,566	38,857
---- by integrated producers	18,535	19,123	20,011	20,735	21,204	22,197	22,865	23,684
---- by commercial producers	11,371	11,952	12,429	12,787	13,853	14,278	14,701	15,173
Marketing Year: (000 Metric Tons) Feed Production by type of animal	2014	2015	2016	2017	2018	2019	2020	2021
Poultry	15,040	15,523	16,151	16,451	17,118	17,556	17,924	18,536
Pork	4,630	4,801	5,024	5,286	5,554	5,942	6,148	6,369
Beef Cattle	3,399	3,469	3,571	3,710	3,881	4,034	4,179	4,286
Dairy Cattle	4,686	4,843	5,107	5,271	5,524	5,769	5,938	6,100
Aquaculture	172	283	297	345	378	421	435	441

Source: Consejo Nacional de Fabricantes de Alimentos Balanceados y de la Nutricion, A.C.

Trade

Driven by increased demand from the livestock and starch sectors, corn imports are forecast to reach 17.5 MMT in MY 2022/23, a slight increase (1.2 percent) over the previous year. On the other hand, Mexican corn exports are forecast to increase 3.3 percent to 620,000 MT in MY 2022/23 on favorable international corn prices.

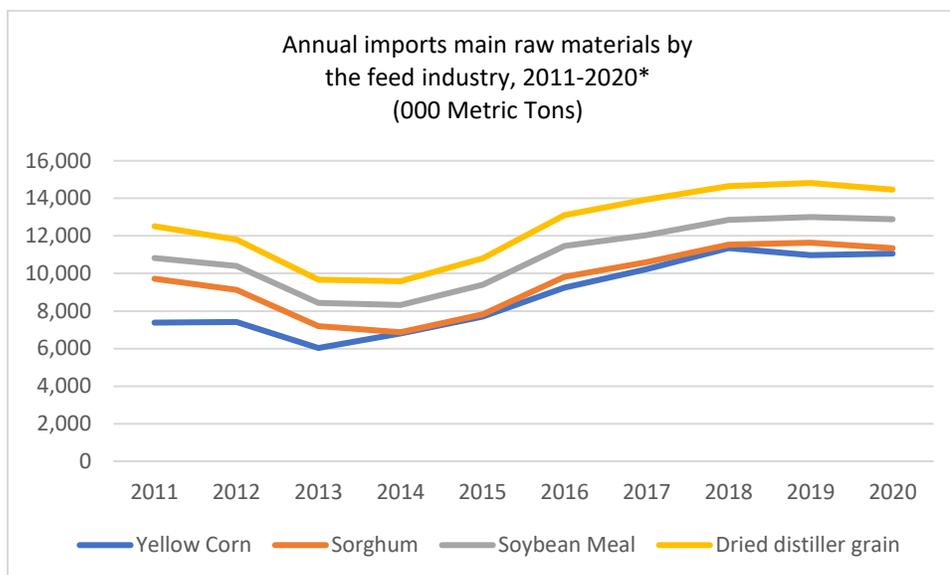
Robust and stable corn demand for animal feed and industrial uses will necessitate continued imports to supplement domestic production. Growth in feed use, particularly for the poultry sector, has been the major driver of corn import demand during the last few years. This trend is forecast to continue through MY 2022/23. Approximately 95 percent of Mexico's corn imports are supplied by the United States, due to geographic proximity and established business relationships/supply chain logistics linking the U.S. grain and Mexican livestock sectors.

Annual Imports of Primary Raw Materials by the Feed Industry, 2011-2020*
(1000 Metric Tons)

	Yellow Corn	Sorghum	Soybean Meal	Dried distiller grain
2011	7,389	2,324	1,114	1,692
2012	7,409	1,726	1,262	1,404
2013	6,031	1,167	1,231	1,239
2014	6,814	56	1,450	1,268
2015	7,706	120	1,575	1,405
2016	9,251	570	1,650	1,635
2017	10,224	377	1,443	1,887
2018	11,351	188	1,318	1,795
2019	19,979	661	1,364	1,815
2020*	11,062	281	1,545	1,583

Source: Consejo Nacional de Fabricantes de Alimentos Balanceados y de la Nutricion, A.C.

*Preliminary



*Preliminary 2020

Stocks

Forecast ending stocks for MY 2022/23 are 3.2 MMT, about a 4 percent reduction due to the projected decrease in domestic production. The MY 2021/22 ending stock estimate has been revised upward from the USDA/Official estimate to 3.4 MMT, reflecting higher than previously estimated domestic production in MY 2021/22.

Presidential Decree Calls for Phase-Out of GE Corn

On January 1, 2021, a presidential [decree](#) entered into force under which “the use of genetically modified corn grain in the diet of Mexican women and men,” as well as glyphosate, is to be phased out by January 2024. GE corn grain is to be replaced by “sustainable and culturally appropriate alternatives.” During the transition period, glyphosate will not be used in any government-sponsored program. The decree directs authorities to revoke existing GE corn product authorizations and abstain from authorizing new GE corn products so long as such decisions meet two criteria: conformity with “applicable standards” and “sufficiency of glyphosate-free corn kernel supplies.” Mexico is currently not self-sufficient in corn production and imports almost 40 percent of total consumption.

Most U.S. corn exports to Mexico consist of yellow corn destined for use in the livestock feed industry. U.S. yellow corn is also imported for use in the Mexican processing sector to make cereals, starches, and other processed products. Smaller amounts of U.S. white corn are exported to Mexico for food use. Mexico is mostly self-sufficient in the production of white corn, but will supplement its own production with imports of U.S. white corn as needed. A variety of corn-based products are also exported to Mexico.

The decree has generated local industry opposition, with the President of Mexico’s National Agricultural Council (CNA) stating publicly that Mexico’s livestock industry could face a loss of competitiveness if the phase-out of GE corn is implemented, given the sector’s dependence on imported yellow corn –

mostly from the United States – for poultry and livestock feed. In addition, twenty-six lawsuits (amparos) or challenges to the decree have been filed by different corn use companies – including seed, oil, food, and feed producers – and agricultural associations in seven states, with two additional under review.

Additional information about the decree is available in the [Mexico Agricultural Biotechnology Annual Report](#).

Note: Due to the unresolved status of these legal challenges and the lack of clarity around the implementation of the decree, the import forecasts in this report do not take into consideration the potential impact of the decree.

SORGHUM

Table 3: Mexico, Sorghum Production, Supply, and Demand for MY 2020/2021 to MY 2022/2023

Sorghum Market Year Begins Mexico	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)	1289	1289	1420	1440	0	1420
Beginning Stocks (1000 MT)	153	153	102	102	0	501
Production (1000 MT)	4348	4348	4700	4950	0	4850
MY Imports (1000 MT)	133	133	200	200	0	200
TY Imports (1000 MT)	133	133	200	200	0	200
Total Supply (1000 MT)	4634	4634	5002	5252	0	5551
MY Exports (1000 MT)	32	32	1	1	0	1
TY Exports (1000 MT)	32	32	1	1	0	1
Feed and Residual (1000 MT)	4400	4400	4650	4650	0	4850
FSI Consumption (1000 MT)	100	100	100	100	0	100
Total Consumption (1000 MT)	4500	4500	4750	4750	0	4950
Ending Stocks (1000 MT)	102	102	251	501	0	600
Total Distribution (1000 MT)	4634	4634	5002	5252	0	5551
Yield (MT/HA)	3.3732	3.3732	3.3099	3.4375	0	3.4155

(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 Sorghum begins in October for all countries. TY 2022/2023 = October 2022 - September 2023

Production

MY 2022/23 (October-September) sorghum production is forecast at 4.85 MMT, a slight decrease from the previous marketing year based on decreased planted area. Industry sources report that farmers will reduce their planting due to increased input costs, mainly of fertilizers, as well as concerns about a resurgence of sugar cane aphid (SCA) in sorghum areas. An SCA outbreak would necessitate control and mitigation measures, increasing production costs and making sorghum an unattractive option for the 2022 spring-summer crop cycle, particularly in the Bajío region. According to local contacts, the temperate climate of Guanajuato, for example, favors the outbreak of SCA, which has discouraged the planting of this crop in the state in recent years, with many farmers switching to corn or barley.

Regarding the current planting cycle (2021-22 fall-winter), the crop in Tamaulipas state has been negatively impacted by unusually cold weather, low reservoir levels and delayed rains, and the elimination of government subsidy programs such as the hedging program to support forward contracts.

Post's sorghum production estimate for MY 2021/22 is revised upward reflecting larger than expected harvested area based on updated SADER figures. The official statistics include production data for the 2021 spring-summer crop cycle and planting intentions/forecast production for the 2021/22 fall-winter crop cycle, as of January 31, 2022. Industry contacts indicate that the 2021/22 crop cycle in Tamaulipas was delayed due to excess humidity. In addition, preparation of sorghum fields has not been adequate due to limited governmental supports and increased input costs. According to local sources, planting intentions in Tamaulipas for the fall-winter 2021/22 crop cycle were approximately 769,000 hectares for an expected output of about 2.0 MMT. An estimated 25 to 30 percent of the fall-winter 2021-22 crop has been planted, with most producers waiting for the risk of frost to pass before planting.

The 2021 spring-summer crop cycle will account for approximately 46 percent of total sorghum production in the current marketing year, with the remainder coming from the 2021/22 fall-winter cycle. Average yield is forecast at 3.4155 MT/ha for MY 2022-23, with lower rates of fertilizer application expected to adversely impact yields. The average yield for the MY 2021/22 crop is expected to reach 3.4375 MT/ha.

Mexico has two sorghum crops annually, one in a spring-summer cycle and the other a fall-winter cycle. Four states - Guanajuato, Michoacán, Tamaulipas, and Sinaloa – account for about 80 percent of spring-summer sorghum production. The fall-winter cycle occurs primarily in Tamaulipas and Nayarit states, with Tamaulipas alone producing 77 percent of Mexico's fall-winter crop.

Consumption

For MY 2022/22 total sorghum consumption is forecast to increase to 4.950 MMT, based on expected growth in the animal feed industry of between two and three percent in 2022. According to the UNA, the Mexican poultry industry – the country's primary sorghum consumer – grew by approximately 3.5 percent in 2021, and this trend is expected to continue in 2022. In addition, demand for chicken meat and eggs is increasing, largely due to these products' relative affordability in an increasingly price sensitive market. These proteins also enjoy a growing reputation with Mexican consumers as healthier alternatives to beef or pork. Local analysts point to increasing inflation (at its highest level in 20 years) and the associated deterioration in purchasing power as likely to reduce beef and pork consumption in favor of increased demand for poultry meat and eggs.

Animal feed industry sources indicate that sorghum continues to play an important role in the overall animal feed mix in Mexico, as good-quality sorghum is regularly available and provides a nutritional feeding value that is roughly equivalent to that of corn. In addition, sorghum can be processed to further improve its feed value, with techniques such as grinding, crushing, steaming, steam flaking, popping, and extruding all have been used to enhance the grain for feed use. Sorghum serves as feed for laying hens and poultry, beef and dairy cattle, and hogs, as well as for pet food.

Trade

Total sorghum imports in MY 2022/23 are forecast to remain stable at 200,000 MT, with virtually all imports coming from the United States due to supply chain and tariff advantages. Price is the decisive factor in feed use choice of sorghum versus corn, wheat, and other options. Industry contacts indicate that the price of sorghum must be approximately 90-92 percent of that of

yellow corn for Mexican poultry feed manufacturers to opt for sorghum, given the higher feed conversion rates and preferred meat coloration impact of corn.

Stocks

Ending stocks are forecast to increase to 600,000 MT in MY 2022-23 due to an increase in estimated MY 2021/22 ending stocks. The larger MY 2021-22 ending stocks are based on updated official data showing larger than expected harvested area and domestic production in that marketing year.

RICE

Table 4: Mexico, Rice Production, Supply, and Demand for MY 2020/2021 to MY 2022/2023

Rice, Milled Market Year Begins	2020/2021		2021/2022		2022/2023	
	Oct 2020		Oct 2021		Oct 2022	
Mexico	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	47	47	49	42	0	43
Beginning Stocks (1000 MT)	175	175	208	208	0	236
Milled Production (1000 MT)	201	201	210	183	0	188
Rough Production (1000 MT)	293	293	306	266	0	274
Milling Rate (.9999) (1000 MT)	6870	6870	6870	6870	0	6870
MY Imports (1000 MT)	811	811	800	825	0	830
TY Imports (1000 MT)	775	775	800	825	0	830
Total Supply (1000 MT)	1187	1187	1218	1216	0	1254
MY Exports (1000 MT)	19	19	10	10	0	10
TY Exports (1000 MT)	20	20	10	10	0	10
Consumption and Residual (1000 MT)	960	960	970	970	0	980
Ending Stocks (1000 MT)	208	208	238	236	0	264
Total Distribution (1000 MT)	1187	1187	1218	1216	0	1254
Yield (Rough) (MT/HA)	6.234	6.234	6.2449	6.3333	0	6.3721

(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

Production

Mexico's rice production for MY 2022/23 (October-September) is forecast to increase to 274,000 MT (rough basis) due to slightly higher planted area in the southeast region (mainly Tabasco and Chiapas) as well as in the state of Nayarit. The forecast rough production volume converts to 188,000 MT of milled rice.

Local contacts report that some irrigation infrastructure in Tabasco, Chiapas, and Nayarit states is expected to be returned to service after being offline during the previous year, thus facilitating expanded planted area. According to the Mexican Rice Council (MRC), planted area would be expected to increase even more (rather than only marginally) if not for rising input costs – including for fertilizers, other agrochemicals, and electricity – which the MRC estimates have increased around 40 percent in the last year. In addition, planted area is constrained in the Usumacinta river basin by an irrigation canal in need of repair. The deteriorated state of this infrastructure is projected to prevent the sowing of approximately 1,000 ha in Campeche during the 2022 spring-summer crop cycle. Finally, the

government price guarantee subsidy has not spurred a substantial increase in rice planting as initially estimated (see Policy section).

Post revised the rice production estimate for MY 2021/22 downward from the USDA/Official estimate to 266,000 MT (rough production), reflecting smaller harvested area than initially projected based on SADER data as of January 31, 2022. The estimated MY 2021/22 rough production is equivalent to 183,000 MT of milled rice.

Given that most rice production in the major growing regions is irrigated, average yields are expected to increase slightly in MY 2022-23 to 6.372 MT/ha, with higher yields in Morelos and Michoacan states. Industry sources report that yields have not varied significantly in recent years, including in MY 2020/21.

Nayarit continues to be the main rice-producing state, with approximately 30 percent of total national production, followed by Campeche with 26 percent and Veracruz with 12 percent. In Nayarit and Campeche, growers have reportedly continued to plant new, certified long-grain variety seeds and increased the use of new cultivation technologies adopted from Brazil. The MRC reports that growers' adoption of these new technologies, with financing from the leading rice millers has facilitated slight productivity increases in several planting areas during the last few years.

Consumption

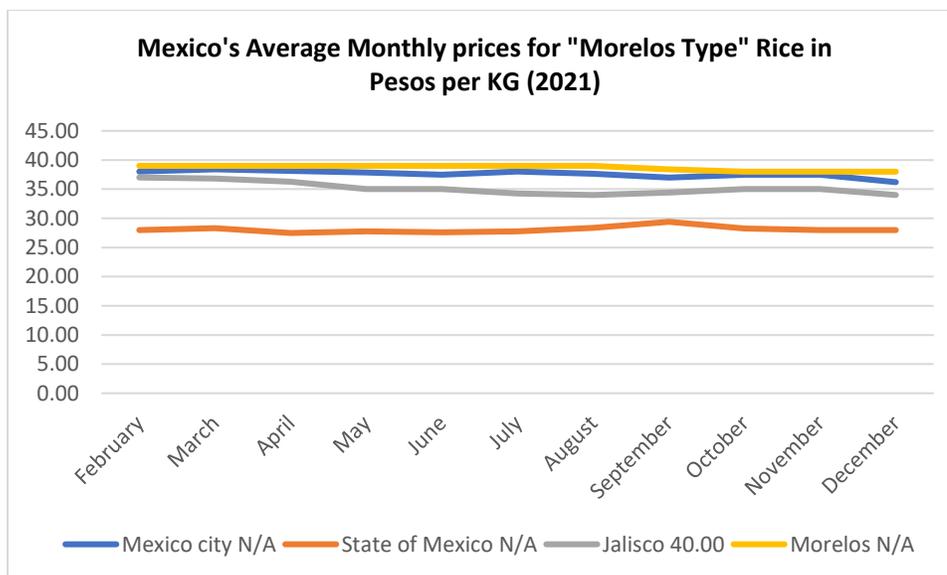
For MY 2022/23, rice consumption forecast to reach 980,000 MT, about a one percent increase from the previous marketing year. Rice consumption continues to grow steadily at slightly above the population growth rate (0.9 percent). Local analysts note that Mexico's per capita rice consumption is quite low compared to other countries in Latin America, at less than 7 kg/capita according to MRC data. While the Mexican rice market continues to be largely price driven, consumers are increasingly demanding higher quality rice. Nonetheless, rice remains a low-cost staple food for most Mexican families.

The rice milling industry is divided between the largest millers, which have exhibited growth and industry consolidation, and the small and medium-sized millers, which have remained stable in their footprint of milling facilities. The larger companies are reportedly operating at 70 percent of their available capacity, while the small and medium firms are working at about 50 percent capacity.

Wholesale Milled Rice Prices (2021)
Mexico's Average Monthly Prices for "Morelos Type" Rice in pesos
per KG

Month	Mexico City	State of Mexico	Jalisco	Morelos
<i>January</i>	N/A	N/A	40.00	N/A
<i>February</i>	38.00	28.00	37.00	39.00
<i>March</i>	38.40	28.30	36.80	39.00
<i>April</i>	38.13	27.48	36.25	39.00
<i>May</i>	37.88	27.75	35.00	39.00
<i>June</i>	37.50	27.60	35.00	39.00
<i>July</i>	38.00	27.75	34.25	39.00
<i>August</i>	37.63	28.38	34.00	39.00
<i>September</i>	37.00	29.40	34.40	38.40
<i>October</i>	37.50	28.25	35.00	38.00
<i>November</i>	37.50	28.00	35.00	38.00
<i>December</i>	36.20	28.00	34.00	38.00

Source: Servicio Nacional de Información de Mercados SNIIM-ECONOMIA



Trade

Rice imports are forecast to increase to 830,000 MT in MY 2022/23 on a slight increase in consumption, while exports are expected to remain stable at 10,000 MT for the marketing year.

According to industry sources, the Mexican rice import market underwent a shift in 2021, with Mexico becoming a more attractive rice export destination for South American producers including Uruguay, Argentina, Paraguay, and Brazil. These suppliers have begun to increase their market share at the expense U.S. rice exports to Mexico, mainly based on a price advantage, with local analysts asserting that the U.S. market share could continue to shrink in 2022. Furthermore, the MRC reports that Mexico

may announce a tariff rate quota (TRQ) for rice imports in CY2022, which would allow countries to benefit from duty free access in the absence of a free trade agreement with Mexico (given that the required phytosanitary protocols are in place). Both paddy and milled rice are expected to be included in the potential TRQ.

Stocks

MY 2022/23 ending stocks are forecast to increase to 264,000 MT on higher production and imports. The estimate for MY 2021/21 ending stocks was revised slightly downward to 236,000 MT due to lower than projected domestic production.

POLICY

Domestic Support for Agricultural Production

The current Mexican administration, led by President Andrés Manuel López Obrador, has focused government support efforts on small and subsistence farmers, while federal subsidies for large, commercial operations have been eliminated. SADER's 2022 budget reflects this shift away from programs aimed at commercial production – both for the domestic and the export markets – towards social programs aimed at improving the livelihoods of low-income farmers, particularly in the southern and central states. Several industry and official sources concur that the single greatest factor expected to impact grain and oilseed production in MY 2022/23 and beyond is the cancellation of the main federal support programs for medium and large growers.

The lack of support for commercial agriculture has reportedly generated frustration among medium and large producers. In addition, industry sources point to grower dissatisfaction with particular programs, such as the Guaranteed Price program for wheat, with criticism of the level of support and the program's focus on small producers of bread wheat to the exclusion of medium and large producers of the *crystalino* wheat variety.

Production for Wellbeing Program

Production for Wellbeing is a direct support program for small and medium producers of corn, dry beans, bread wheat, rice, and other grains, with farms up to 20 hectares. The program's overall objective is to increase domestic grain production and help small producers reach a higher level of food self-sufficiency. Producers registered under the previous Proagro or PIMAF (Incentives Program for Corn and Bean Producers) programs were automatically included in the new Production for Wellbeing system.

In 2022 the subsidy amounts are as follows:

Grower Category	Definition	Support per eligible hectare
Small Grower	Grower with up to 5 hectares of land suitable for cultivation	1,600 pesos (USD 78)
Medium Grower	Grower with 5-20 hectares of land suitable for cultivation	1,000 pesos (USD 49)

According to SADER data, the Production for Wellbeing program had delivered 9.9 billion Mexican pesos (around USD 483 million) to 1.8 million small and medium-scale grain producers through July 2021.

SADER reports that 83 percent of program beneficiaries are corn, sorghum, wheat, rice, and/or dry bean growers, while the remainder are producers of coffee, sugar cane, cocoa, honey, amaranth, and chia. Among the grains producers in the program, about 55 percent are in Mexico’s southern and southeast states, 57 percent correspond to municipalities with a large indigenous population, and about 32 percent are women.

Guaranteed Prices Program

One of President López Obrador’s signature programs is the Guaranteed Prices Program for Basic Food Products (PPGPAB), which provides guaranteed prices for small producers of corn, bread wheat, dry beans, rice, and milk and distributes the commodities to low-income communities. The program is administered by Food Security Mexico (*Seguridad Alimentaria Mexicana*, or SEGALMEX), an agency under the purview of SADER. SEGALMEX was created by merging Liconsa, the state-owned enterprise that distributes milk at subsidized prices to targeted beneficiaries, with Diconsa, the government organization that supplies subsidized grocery products to rural communities. The agency manages the purchase and distribution of commodities under the program through 588 collection centers nationwide, 200 of which are in areas with a significant indigenous population.

Under the PPGPAB, the government will pay small corn producers (up to 5 ha of rainfed cropland) based on their production volume, at a rate of 6,278 Mexican pesos per MT of corn (around USD 306/MT), up to a maximum of 20 MT per grower. Likewise, small corn producers are eligible for 160 pesos/MT (USD 7.80/MT) to cover costs of transporting up to 20 MT of grain to the collection center each crop cycle.

For wheat and rice producers, as well as medium-scale corn producers (5-20 ha of rainfed cropland), the program provides a subsidy to cover the difference between the guaranteed price and the reference price. The reference price is determined by SEGALMEX based on futures prices of the Chicago Stock Exchange and prevailing market conditions by region, among other factors.

The guaranteed price for small bread wheat producers (up to 8 ha of cropland) is 6,900 Mexican pesos/MT (USD 336/MT) up to a maximum of 50 MT per farmer. For medium-scale bread wheat

producers the guaranteed price is 6,400 Mexican pesos/MT (approximately USD 313/MT) for a maximum volume of 100 MT.

For small rice producers (up to 8 ha), the reference price is 7,300 pesos/MT (about USD 356/MT) for a maximum of 80 MT. For paddy rice, the guaranteed price sits at 6,760 pesos/MT (around USD 328/MT) for 120 MT per producer.

Fertilizer Subsidy Program

On March 7, 2022, Mexico announced plans to expand its domestic subsidy program for delivering free fertilizer to subsistence farmers. SADER Secretary Victor Villalobos appeared alongside the Director General of the state-owned oil company PEMEX to announce an increase from 185,000 metric tons (MT) to a goal of 352,000 MT of domestically produced fertilizer (urea and DAP). In addition, the list of eligible states will grow from five to nine, with Guerrero, Chiapas, Morelos, Puebla, and Tlaxcala being joined by Chiapas, Oaxaca, Durango, Zacatecas, and Nayarit. [Note: Chiapas, Morelos, Puebla, and Tlaxcala were added to the eligibility list beginning on January 1, 2022.] The program for small producers mostly targets self-consumption of corn and other grains, dry beans, and vegetables, with a maximum amount of support of 600 kg per producer. Farmers have complained that the amounts of fertilizer provided have been inadequate.

According to a December 31, 2021 SADER announcement about the program, the fertilizer program is one of SADER's main programs, with a budget allocation of \$5.2 billion Mexican pesos (\$254 US million dollars), or about nine percent of the total SADER budget. The program will reportedly serve 700,000 small-scale farmers in 2022. The official goals of the program are to reduce dependence on imported fertilizers and provide small-scale producers with fertilizer at affordable prices.

For More Information

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Report Number	Title	Dated
MX2022-0002	Grain and Feed Update	12/23/2021
MX2021-0055	Grain and Feed Update	9/16/2021
MX2021-0028	Grain and Feed Update	5/26/2021
MX2021-0014	Grain and Feed Annual	3/14/2021
MX2021-0004	Grain and Feed Update	1/14/2021
MX2020-0032	Grain and Feed Update	9/04/2020

Attachments:

No Attachments