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Report Highlights:

Domestic milk production is forecast to decrease to 2 million tons in 2023. 2022 milk production is projected to drop to 2.01 million tons after reaching 2.34 million tons in 2021. Milk production is expected to show a decreasing trend due to the decreasing number of dairy farms and falling demand for milk. Cheese consumption, in contrast, is gradually increasing. However, imports in 2022 may experience an unusual drop due to the weakening Won exchange rate, particularly against the U.S. dollar.

Executive Summary:

Korea's milk production is forecast to decrease to 2 million tons in 2023. Unusually hot weather in 2022 and the gradual decrease of dairy farms caused milk production to fall to 2.01 million tons. Milk consumption continues to decrease as Koreans have fewer children. However, sales of premium milk products are increasing as consumer demand for healthier and immune-boosting foods grew during the COVID pandemic. Hypermarkets and supermarkets will continue to be major distribution channels for fresh milk sold in multipacks.

Cheese consumption is forecast to hit a record 194,000 tons in 2023. Per capita cheese consumption has more than doubled in only ten years, with an increase in both the consumer market and food processing industry. Within the cheese market, local production of processed cheese is showing fast growth. Cheese imports continue to increase mainly due to tariff reductions and tariff rate quota (TRQ) increases under international trade agreements, with cheese from major exporters entering duty-free by 2026, supporting further import growth. However, cheese imports in 2022 are expected to fall as the high won-dollar exchange rate has pressured Korean importers.

Average local nonfat dry milk (NFDM) stocks during January to August 2022 were 7,919 tons, down 30.5 percent from 11,392 tons during the same period in 2021. Dairy product manufacturers, facing weak fluid milk and infant formula demand due to the country's low fertility rates, are working to diversify their business portfolios. COVID-19 related school closures also hurt milk demand. Processors are increasingly looking to target the adult and senior powdered milk market.

Commodities:
Dairy, Milk, Fluid

Production:

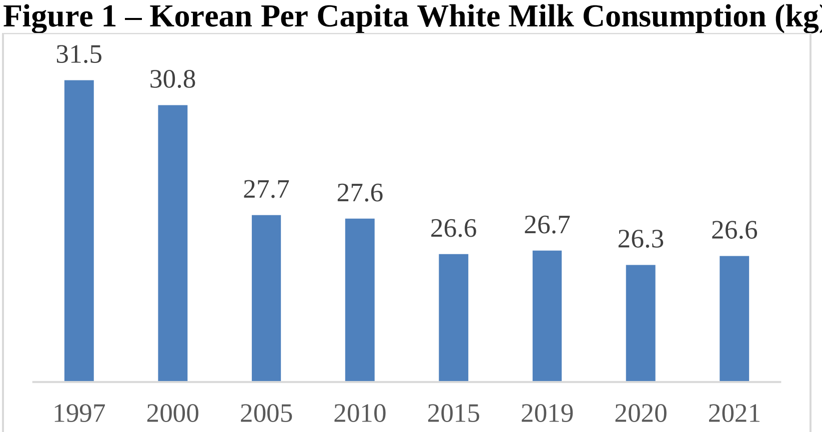
Domestic fluid milk production in 2023 is forecast to decrease to 2 million tons, as the number of dairy farms continues to decrease. The number of cows in production has been on a general decline as well. Projected fluid milk production in 2022 fell to 2 million tons, down 34,000 tons from 2021. Lower average temperatures during winter and higher average temperatures and humidity during the summer led to a decrease in production. The tropical night weather pattern negatively impacted production as Holstein cows are vulnerable to heat stress.

Consumption:

Korea's domestic milk consumption in 2023 is forecast to decrease to 2 million tons. 2022 fluid milk consumption is forecast at 2.01 million tons, down 24,000 tons from 2021. 2021 milk consumption is estimated at 2.034 million tons based on the Ministry of Agriculture, Food and Rural Affairs (MAFRA) statistics.

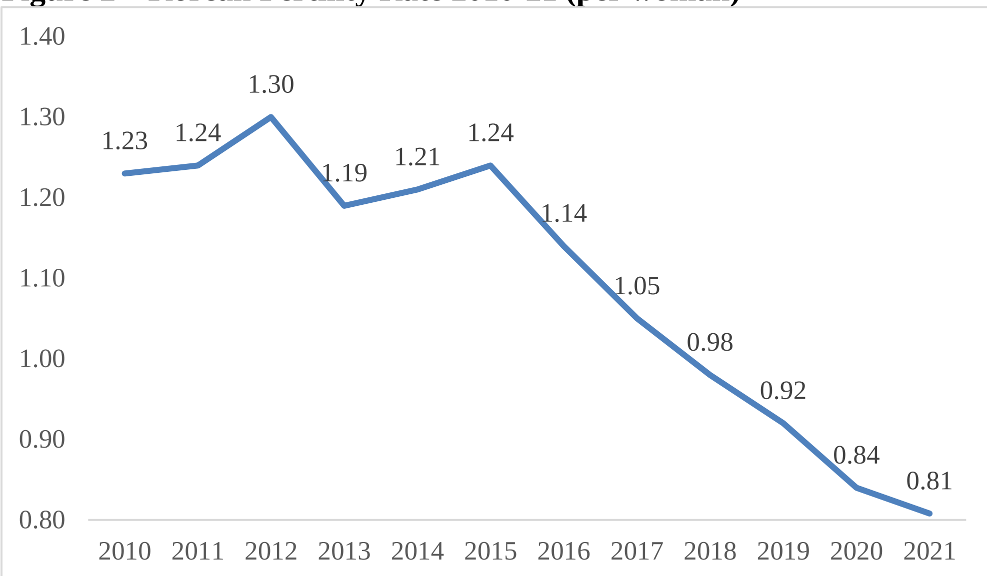
White milk consumption per capita in 2021 was 26.6 kg. While this number increased 0.3 kg compared to 2020, the overall trend is downward (Figure 1). Low fertility rates are the primary force driving the decline of milk consumption in Korea. In 2018, the fertility rate fell below one child per woman, and it decreased further to 0.808 children per woman in 2021 (Figure 2). The number of children (age 0 to 14) dropped from 9.91 million in 2000 to 6.19 million in 2021. Statistics Korea forecasts that the population of children aged 0 to 14 will drop to 3.45 million by 2060 (Figure 3), reflecting accelerating demographic trends toward fewer or delayed marriages and rapidly declining birthrates. As children and teenagers are the main milk consumers in the Korean market, demand for fresh milk is expected to fall along with the drop in the number of children. Demand for processed milk in beverages targeting adults is expected to stay robust. As a result, sales of processed milk could exceed the sales of fresh milk in coming years.

Figure 1 – Korean Per Capita White Milk Consumption (kg)



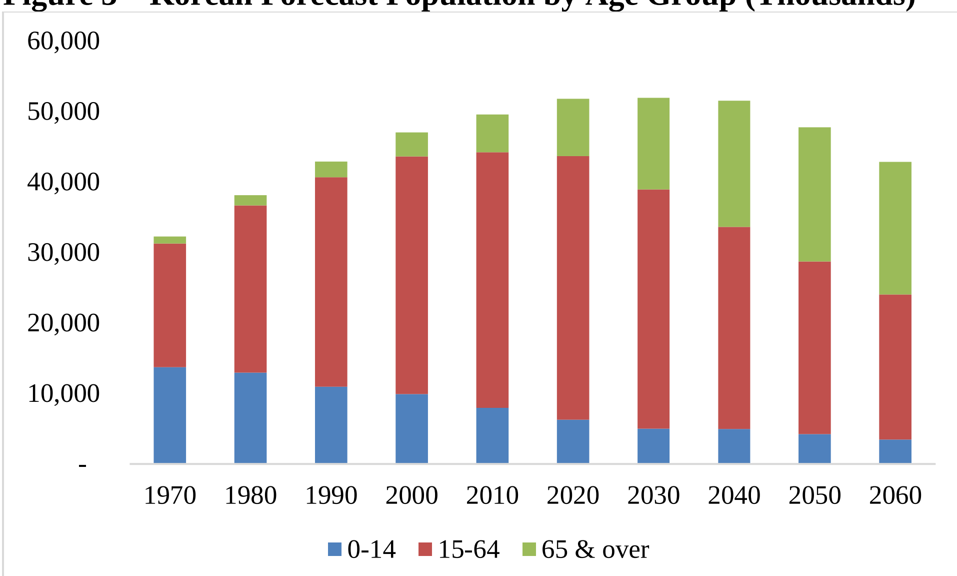
Source: MAFRA

Figure 2 – Korean Fertility Rate 2010-21 (per woman)



Source: Statistics Korea

Figure 3 – Korean Forecast Population by Age Group (Thousands)



Source: Statistics Korea

Marketing:

Hypermarkets and supermarkets are the main distribution channels for fresh milk products, which, along with flavored milk drinks, are sold in multipacks targeting families. Online retailers have become a growing sales channel for milk products. While consumers refrained from purchasing milk products online in the past, they can now be safely delivered to homes through quick delivery services offered by most retailers. Consumers can receive their purchases well packed in insulated packages within a few hours.

In Korea, milk sales to primary schools account for around 5.5 percent of domestic consumption. However, sales have dropped along with the falling birth rate. The share of fresh milk products sold through direct selling (home delivery of milk subscription) also declined, as fewer consumers drink milk on a daily basis. Meanwhile, the share of fresh milk products sold at convenience stores and mixed retailers has increased.

With the rise in income and increased interest in health and environmental concerns, consumers continue to seek out premium-priced products such as organic, antibiotic-free, and animal welfare approved milk products. The organic milk market reached 104 billion Korean Won ($88 million) in 2020, up from only 5 billion Korean Won in 2008. Korean consumers are anxious about food safety issues and parents want to provide their children with the best products available, with a careful eye on health and safety issues. Regardless of the high price, premium products such as Dongwon F&B's "Denmark Alive Premium Milk" and S-Food's "Sulsung Milk" are popular among families with kids. Demand for healthier and premium products has grown even more since the outbreak of COVID-19. Along with this trend, manufacturers launched several new products. Seoul Milk launched its first organic milk product in September 2021, and Maeil Dairies launched two types of pasteurized, antibiotic-free organic milk.

Policy:

All U.S. dairy product exports to Korea intended for human consumption must be accompanied by a dairy export certificate issued by USDA's Agricultural Marketing Service (AMS). The requirement for an AMS export certificate applies to all dairy products shipped to Korea on or after July 1, 2021. This includes dairy products containing eggs, such as ice cream. To meet Korea's new requirements, AMS launched a new dairy certificate that is available only in the Agriculture Trade Licensing & Attestation Solution (ATLAS) system. Exporters will need to create an ATLAS account with AMS if they are not already registered.

The new certificate requirements are summarized in an FAS GAIN report: Update on New Korean Dairy Certificate. Exporters may find more information on the AMS website. Any inquiries about ATLAS and the certification application process can be directed to DairyExportsQuestions@usda.gov.

For any new dairy product establishment wishing to export products to Korea, the request to register for export must be made through the government. For U.S. exporters, required documents should be submitted to FAS/Seoul (agseoul@fas.usda.gov). Details on registration requirements are also available in the South Korea Food and Agricultural Import Regulations and Standards (FAIRS) country report, updated annually by FAS/Seoul.

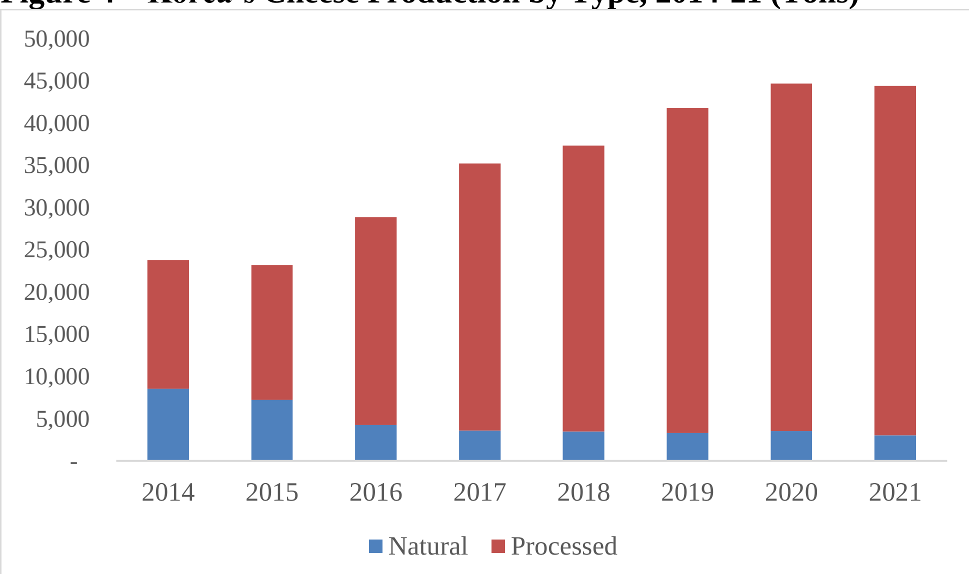
Commodities:
Dairy, Cheese

Production:

Domestic cheese production is forecast to increase 1,000 tons in 2023 to 45,000 tons, as processed cheese production continues to grow. Cheese production for 2021 decreased to 44,409 tons based on dairy statistics from MAFRA. Very little cheese is made with domestic milk due to its cost, as raw milk prices in Korea are very high reflecting the Korean government's policy that sets milk prices based on the cost of production. A new price scheme is planned to be introduced in mid-October 2022 and may affect domestic production.

In contrast to fresh cheese production, processed cheese production has grown rapidly in recent years. Between 2010 and 2021, fresh cheese production dropped 61.4 percent while processed cheese production increased 112.2 percent (Figure 4). Domestic cheese manufacturers have been launching new products to boost sales. The Korean dairy sector is dominated by several large companies due to the high initial investment costs. Major dairy companies include Seoul Dairy Cooperative, Maeil Dairies, Namyang Dairy Products, and Dongwon F&B.

Figure 4 – Korea's Cheese Production by Type, 2014-21 (Tons)



Source: MAFRA

Consumption:

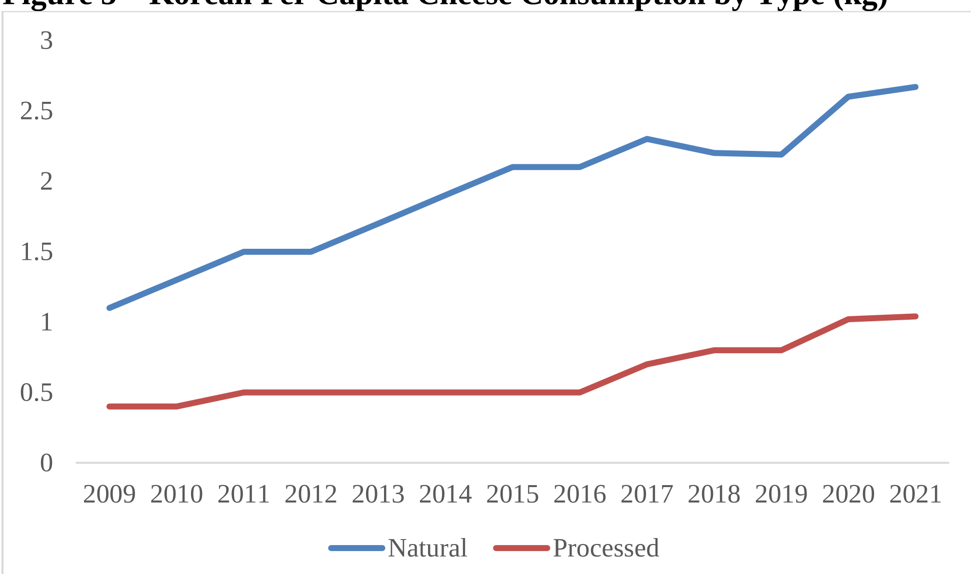
Cheese consumption is forecast to increase in 2023 to 194,000 tons. Per capita cheese consumption has doubled over the last ten years. Consumer tastes are evolving and more products using cheese are being introduced to the market. As a result, cheese consumption is expected to continue increasing both for direct consumption and in the food processing industry (Figure 5). Cheese consumption totaled 191,429 tons in 2021 according to MAFRA statistics, up 1.7 percent from 2020.

In the past, cheese consumption was limited to cheddar slices for sandwiches and hamburgers, or mozzarella for pizzas. Until 2010, sliced cheese accounted for around 50 percent of the products in the Korean cheese market. Since then, Korea's food culture and tastes have become more westernized. Cheese is now consumed in more diverse ways and a wider variety of cheeses have been introduced.

Cheese has become a popular snack for both kids and adults. It is increasingly considered a nutritious snack for children in Korea, and per capita cheese consumption is highest among toddlers (age 1-2). Manufacturers are launching products targeted at children. Additionally, cubed and portion cheese products are a popular snack amongst adults to consume with alcohol. Soft cheese, ricotta, brie, and other gourmet cheeses have also increased in popularity.

Cheese is also commonly used in the food processing industry and in prepared foods. Packaged prepared meals are increasingly being sold in convenience stores, bakery stores, hypermarkets, and coffee shops, either for takeout or dine in. Food processors are launching hot and spicy packaged convenience food products with cheese ingredients.

Figure 5 – Korean Per Capita Cheese Consumption by Type (kg)



Source: Korea Dairy Industries Association

Trade:

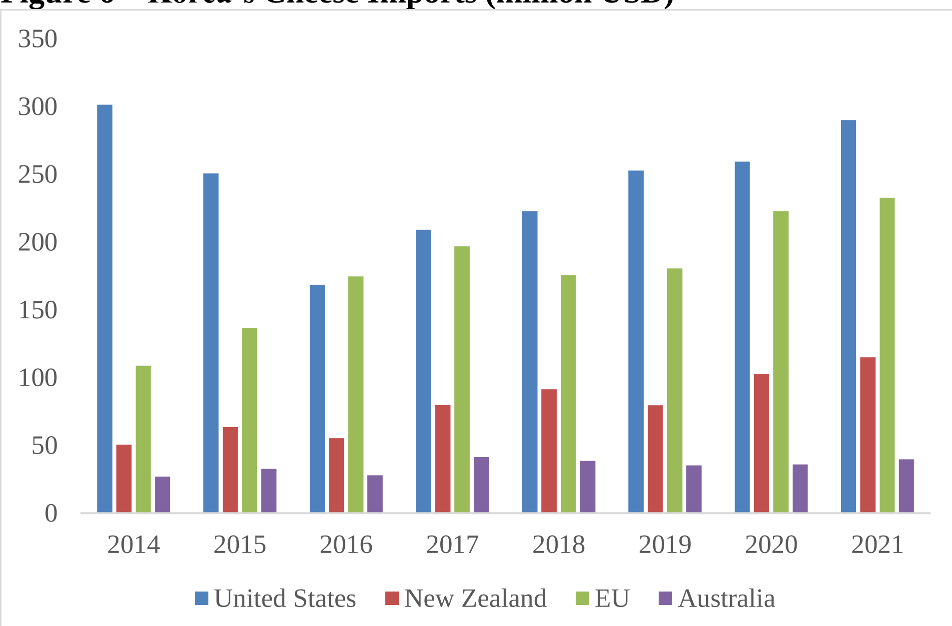
Cheese imports in 2023 are forecast to decrease to 148,000 tons. The demand for cheese is continuously growing, but the importers have been having difficult times more recently due to fluctuations in the exchange rate and weakening Won. In 2021, Korea imported 156,523 tons of cheese according to trade statistics, up 5.8 percent from 2020. Nevertheless, cheese imports are in an increasing trend overall due to tariff reductions, tariff-rate quota (TRQ) increases, consumption growth, and limited domestic production.

The top cheese exporters to Korea, by value, are the United States (42.3%), European Union (34.0%), New Zealand (16.8%), and Australia (5.8%). Korea has free trade agreements with each of these countries, reducing import duties and making imported cheese increasingly more affordable.

Tariff reductions and TRQ increases under the U.S.-Korea Free Trade Agreement (KORUS FTA) have helped boost U.S. cheese exports significantly. Korea imported 67,541 tons ($290.04 million) of cheese from the United States in 2021 (Figure 6). However, the market is highly competitive due to imports from the EU, Australia, and New Zealand, who also have tariffs and TRQs (Table 1).

The KORUS FTA created a zero-duty tariff-rate quota for cheeses covered under tariff lines 0406101000, 0406200000, 0406300000, and 0406900000. The in-quota amount was 9,407 tons in 2022, and all U.S. cheese will enter duty-free by 2026 (Table 2). The Korea Dairy Industries Association administers the TRQs and allocates the in-quota quantity to historical and new importers through a licensing system.

Figure 6 – Korea's Cheese Imports (million USD)



Source: Korea Customs Office 2016, HS 0406, Cheese and Curd

Table 1 - 2021 Tariff and TRQ Volume of Other Major Exporting Countries (EU, NZ, Australia)

HS Code	Description	EU	New Zealand	Australia
0406101000	Fresh Cheese	11.2%	16.8%	18.0%
0406102000	Curd	0%	16.8%	14.4%
0406200000	Grated or powdered cheese of all kinds	11.2%	16.8%	19.8%
0406300000	Processed cheese, not grated or powdered	11.2%	16.8%	18.0%
0406400000	Blue-veined cheese	0%	16.8%	14.4%
0406900000	Cheese, NES, including cheddar	11.2%	16.8%	19.8%
	TRQ Volume (MT)	5,949	5,839	5,865

Table 2 - Cheese Tariff Phase-Out Schedule under KORUS FTA (U.S.)

HS Code	Description	Base Rate	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
0406101000	Fresh Cheese	36.0%	33.6%	31.2%	28.8%	26.4%	24.0%	21.6%	19.2%	16.8%	14.4%	12.0%	9.6%
0406102000	Curd	36.0%	32.4%	28.8%	25.2%	21.6%	22.8%	19.2%	15.6%	7.2%	3.6%	0%	0%
0406200000	Grated or powdered cheese of all kinds	36.0%	33.6%	31.2%	28.8%	26.4%	24.0%	21.6%	19.2%	16.8%	14.4%	12.0%	9.6%
0406300000	Processed cheese, not grated or powdered	36.0%	33.6%	31.2%	28.8%	26.4%	24.0%	21.6%	19.2%	16.8%	14.4%	12.0%	9.6%
0406400000	Blue-veined cheese	36.0%	32.4%	29.0%	25.4%	21.8%	18.2%	19.2%	15.6%	7.2%	3.6%	0%	0%
0406900000	Cheese, NES, including cheddar	36.0%	33.6%	31.2%	28.8%	26.4%	24.0%	21.6%	19.2%	16.8%	14.4%	12.0%	9.6%
	TRQ Volume (MT)		7,000	7,210	7,426	7,649	7,878	8,115	8,358	8,609	8,867	9,133	9,407

Commodities:

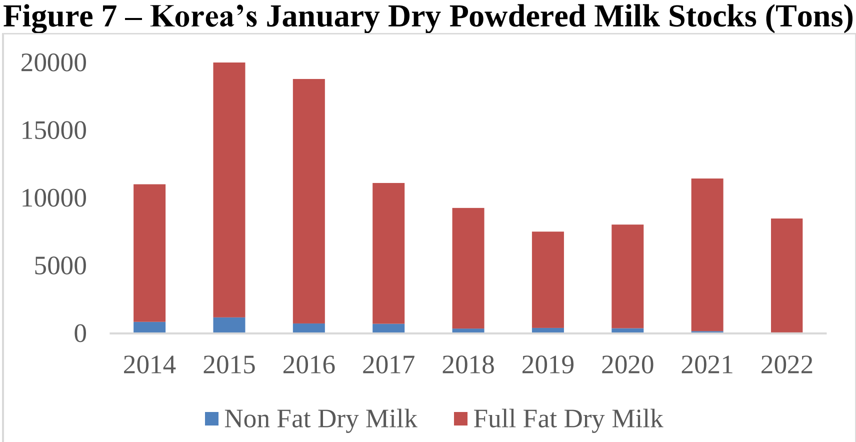
Dairy, Milk, Nonfat Dry

Production:

Local nonfat dry milk (NFDM) production is forecast to drop 1,000 tons to 8,000 tons in 2023, as there is expected to be less excess fluid milk production. Dried milk stocks started to increase again in 2021 after decreasing for several years due to decreasing fluid milk consumption. Stocks reached 12,163 tons in March 2021, up 24 percent from March 2020 and the highest level in more than four years. However, as raw milk production decreased in 2022, NFDM stock levels fell to 7,086 tons in August 2022.

The Korean Government implemented a policy to increase milk production in 2010 after 30,000 milk cows were slaughtered due to an outbreak of foot and mouth disease. The policy resulted in excess milk production in 2014 and 2015. The excess milk was turned into dried milk, and dried milk stocks increased from 7,053 tons at the end of 2013 to 17,532 tons at the end of 2014. The government has sought to manage milk production and decrease dried milk stocks since 2014 (Figure 7). As a result, dried milk production is expected to gradually decrease over the next several years. The industry is targeting 5,000 to 6,000 tons as a normal range for inventories.

Figure 7 – Korea's January Dry Powdered Milk Stocks (Tons)



Source: Korea Dairy Industries Association

Consumption:

Domestic consumption is forecast to remain stable at 22,000 tons in 2023. NFDM consumption was 24,000 tons in 2021 based on dairy statistics published by MAFRA. Lower demand for infant formula is driving down demand for NFDM. NFDM is primarily used in baked goods, infant formula, and as an ingredient in other dairy products.

Korea's fertility rate is steadily declining, and dropped to 0.75 during the first half of 2022, according to Statistics Korea -- a record low. Due to this decline, dairy product manufacturers, facing weak fluid milk and infant formula demand, are working to diversify their business portfolios to include products such as adult protein supplements and senior health supplements.

Processors are looking to target the adult and senior powdered milk market. In 2018, Maeil Dairies was the first to enter the market by launching a brand for nutritional meals for adults called 'Selects,' and a powdered milk product for adults called 'Core Protein.' Namyang launched a powdered milk product for adults in 2019, and Lotte Food and Ildong Food also entered the market with similar products in 2020.

Trade:

NFDM imports are forecast to remain flat in 2023 at 15,000 tons. 2021 imports are 14,510 tons based on import statistics.

Korea maintains a TRQ for NFDM (Table 3). The TRQ is allocated through an Imports Rights Auction (IRA). The quasi-governmental Korea Agro Fisheries & Food Trade Corporation (also known as "aT") manages these auctions. The Korea Customs Service reimburses the 176 percent out-of-quota tariff to importers when they have re-exported processed dairy-based products made from imported NFDM. Korean dairy manufacturing companies are looking forward to expanding market opportunities for exporting to China. Local food processors import NFDM for processing into infant formula, bakery use, and use in other dairy products, and for re-export.

Table 3 - NFDM Tariff and TRQ Schedule on Korea-US FTA Implementation

HS Code	Description	Base Rate	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
040210	In powder, fat content not exceeding 1.5%	176%	176%	176%	176%	176%	176%	176%	176%	176%	176%	176%	176%
	Duty free quota (MT)*		5,000	5,150	5,304	5,463	5,628	5,797	5,971	6,150	6,334	6,524	6,720

* Additional compound increase of 3% every year

Table 4 – Commodity, Dairy, Milk, Fluid, Production, Supply and Distribution

Dairy, Milk, Fluid	2021		2022		2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
Korea, Republic of	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Cows In Milk (1000 HEAD)	204	204	203	198	0	197
Cows Milk Production (1000 MT)	2030	2034	2040	2010	0	2000
Other Milk Production (1000 MT)	0	0	0	0	0	0
Total Production (1000 MT)	2030	2034	2040	2010	0	2000
Other Imports (1000 MT)	11	0	10	0	0	0
Total Imports (1000 MT)	11	0	10	0	0	0
Total Supply (1000 MT)	2041	2034	2050	2010	0	2000
Other Exports (1000 MT)	10	0	10	0	0	0
Total Exports (1000 MT)	10	0	10	0	0	0
Fluid Use Dom. Consum. (1000 MT)	1540	1527	1530	1525	0	1510
Factory Use Consum. (1000 MT)	491	507	510	485	0	490
Feed Use Dom. Consum. (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	2031	2034	2040	2010	0	2000
Total Distribution (1000 MT)	2041	2034	2050	2010	0	2000

Table 5 – Korea, Republic of: Commodity, Dairy, Cheese, Production, Supply and Distribution

Dairy, Cheese	2021		2022		2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
Korea, Republic of	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	17	17	23	25	0	25
Production (1000 MT)	45	44	47	44	0	45
Other Imports (1000 MT)	157	156	150	150	0	148
Total Imports (1000 MT)	157	156	150	150	0	148
Total Supply (1000 MT)	219	217	220	219	0	218
Other Exports (1000 MT)	1	1	1	1	0	1
Total Exports (1000 MT)	1	1	1	1	0	1
Human Dom. Consumption (1000 MT)	195	191	193	193	0	194
Other Use, Losses (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	195	191	193	193	0	194
Total Use (1000 MT)	196	192	194	194	0	195
Ending Stocks (1000 MT)	23	25	26	25	0	23
Total Distribution (1000 MT)	219	217	220	219	0	218

Table 6 –Commodity, Dairy, Milk, Nonfat Dry, Production, Supply and Distribution

Dairy, Milk, Nonfat Dry	2021		2022		2023	
Market Year Begins	Jan 2021		Jan 2022		Jan 2023	
Korea, Republic of	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	11	11	13	9	0	8
Production (1000 MT)	10	7	9	6	0	5
Other Imports (1000 MT)	15	15	14	15	0	15
Total Imports (1000 MT)	15	15	14	15	0	15
Total Supply (1000 MT)	36	33	36	30	0	28
Other Exports (1000 MT)	0	0	0	0	0	0
Total Exports (1000 MT)	0	0	0	0	0	0
Human Dom. Consumption (1000 MT)	23	24	24	22	0	22
Other Use, Losses (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	23	24	24	22	0	22
Total Use (1000 MT)	23	24	24	22	0	22
Ending Stocks (1000 MT)	13	9	12	8	0	6
Total Distribution (1000 MT)	36	33	36	30	0	28

Table 7 - Korea's Key Dairy Product Imports (Metric Tons)

	2017		2018		2019		2020		2021	
	U.S.	Total	U.S.	Total	U.S.	Total	U.S.	Total	U.S.	Total
Cheese HS 0406	**49,012**	**125,002**	**53,359**	**123,850**	**61,432**	**131,354**	**61,821**	**148,002**	**67,541**	**156,523**
NFDM HS 0402.10	**7,473**	**23,187**	**8,061**	**24,775**	**7,293**	**23,765**	**4,561**	**17,469**	**4,182**	**14,510**
WFDM HS 0402.21	**292**	**4,625**	**157**	**5,282**	**460**	**5,207**	**456**	**5,515**	**572**	**4,545**
Mixed Milk	**781**	**46,957**	**628**	**53,917**	**486**	**57,264**	**686**	**63,197**	**681**	**68,759**
HS 0404.90	44	34,917	4	41,192	3	43,952	18	45,950	32	47,508
HS1901.90.20	737	12,040	624	12,779	483	13,312	668	17,247	649	21,251
Butter HS 0405.10	**624**	**5,119**	**976**	**6,807**	**1,364**	**9,791**	**1,096**	**11,282**	**1,985**	**17,865**
Whey Powder HS 0404.10	**11,658**	**33,728**	**15,102**	**34,633**	**16,532**	**38,372**	**11,613**	**33,241**	**14,248**	**37,378**
Ice Cream HS 2105	**1,332**	**7,409**	**1,477**	**7,917**	**1,903**	**7,513**	**3,066**	**9,229**	**3,849**	**10,671**
Total (U.S. M/S)	**71,172 (29%)**	**246,027**	**79,760 (48%)**	**165,042**	**89,470 (33%)**	**273,266**	**83,299 (29%)**	**287,935**	**93,058 (30%)**	**310,251**

Source: Korea Customs Office

Attachments:

No Attachments