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Prepared By: Hungju Chen

Approved By: Erik Syngle

Report Highlights:

In MY 2023, Taiwan's liquid milk production is estimated to reach 474,000 tons and is forecast to see a slight increase in MY 2024. However, the long-term liquid milk outlook is complex and subject to unstable dynamics due to New Zealand dairy products soon to have unlimited tariff-free access to the Taiwan market in 2025. Taiwan's dairy market has become more conservative as dairy processors, distributors, and consumers are closely monitoring the acceptance of imported fluid milk. Besides liquid milk, Taiwan relies heavily on imported cheese, butter, and milk powder. Demand for butter and milk powder remains stable while cheese demand continues to grow, primarily supplied by New Zealand and the United States.

COMMODITIES INCLUDED IN THIS REPORT:

- **Dairy, Milk, Fluid**
- **Dairy, Cheese**
- **Dairy, Butter**
- **Dairy, Milk, Nonfat Dry**
- **Dairy, Dry Whole Milk Powder**

Dairy Situation in Taiwan Overview

The dairy industry continues to be primarily based on fresh milk production, with some production of milk beverages. In Taiwan, raw milk is mainly purchased by five major companies at guaranteed prices and quantities, rather than in a free and competitive marketplace. In the winter, there is an excess of fresh milk production and reduced local demand, leading to seasonal imbalances. Under the contract system, dairy processors tend to maintain lower levels of raw milk procurement in the winter. However, local dairy infrastructure is not sufficient to support the development of other dairy products. With the upcoming full opening to New Zealand dairy products under the Agreement Between New Zealand and the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu on Economic Cooperation (ANZTEC), domestic dairy farming groups are even more concerned about their future prospects.

Production

Yield

MY 2023 cow's milk production is estimated at 465,000 MT. The Taiwan government's target production volume is 430,000 MT. In MY 2022, domestic fluid milk production was 463,000 MT, just slightly above the previous estimate.

Due to the uncertain prospects of the industry, both milk production and the number of dairy farms are expected to continue to decline over the longer term. Production will probably remain stable in 2024 with a decline expected to begin in 2025. In the second quarter of 2023, there were approximately 560 dairy farms, with 66,000 milking cows in the summer, accounting for 45 percent of the total cattle population. Taiwan's five major dairy processors usually sign three-year contracts with dairy farmers to purchase raw milk for processing. To mitigate the competitive risk from imported milk, the number of contracted dairy farms has been decreasing, with 485 farms under contract in June 2023.

Taiwan classifies milk quality into four grades (A to D). According to the National Animal Industry Foundation (NAIF), in 2022, 97.6 percent of raw milk was Grade A, with an average somatic cell count of 214,000/mL and an average bacterial count of 15,000/mL. Over 80 percent of domestically produced raw milk is used for fresh milk purposes, while the remaining portion is mainly used for flavored milk or other dairy beverages, with very little used for other processing. Most of Taiwan's yogurt is made from milk powder rather than fresh milk processing. Currently, there are several cheese producers in Taiwan, but their production is limited, primarily catering to high-end restaurants or niche markets, and the total production volume cannot reach commercial scale. Taiwan's hygiene regulations are strict, making it challenging for small farmers to produce other dairy products on the farm. Although the government provides some technical guidance for products like Cheddar cheese, the links in the industry's supply chain are not strong. Therefore, in the short term, the Taiwanese dairy industry is still primarily focused on fresh milk.

Cost and Feed

According to data from the Ministry of Agriculture (MOA)[1], the cost of raising dairy cows has increased by 10 percent on average due to rising feed costs (imported and domestic), labor shortages, and increases in minimum wages. The cost per hundred kilograms of milk produced has increased by 16.7 percent. The profit per hundred kilograms is 642 NTD (about 20.4 USD)[2]. However, this analysis does not consider the rising cost of living and estimates labor costs at an hourly wage of 90 NTD (Taiwan's minimum legal hourly wage was 168 NTD in 2022), so farmers' actual income will be even lower.

According to data from NAIF, average feed prices in 2022 increased by 20 percent. Among them, the price of Bermuda hay increased by 40 percent, with domestic forage increasing by an average of 3.8-5.1 USD per MT, while imported forage increased by 82-140 USD per MT. In 2023, feed prices are even higher than in 2022, with alfalfa approaching 600 USD per MT, a 40 percent increase compared to the 2019 average price. (Taiwan cannot produce alfalfa and it has significant impact on milk quality.) The prices of corn and soybeans have also increased by 65 percent and 40 percent, respectively, compared to 2019.

Table 1: Taiwan Feed Prices (2019 - present)

	Import							Domestic Production	
USD/ MT	Corn	Soy meal	Bran	Oat grass	Alfalfa	Soybean hull pellets	Bermuda grass	Forage maize	Elephant grass
2019	236.83	395.56	190.16	415.87	446.35	199.05	362.86	59.68	35.56
2020	222.22	400.00	181.90	400.32	453.33	195.24	341.27	60.63	33.97
2021	323.49	510.48	217.46	414.60	470.16	221.59	322.22	59.68	36.83
2022	383.49	579.37	240.00	496.51	573.97	266.03	462.22	64.44	40.63
2023.07	391.75	548.89	225.40	545.71	597.46	284.13	482.22	80.32	44.44

Source: NAIF, Taiwan

[1] Taiwan's Council of Agriculture (COA) was upgraded to the Ministry of Agriculture (MOA) on August 1, 2023.
[2] In this report, 1 USD = 31.5 NTD

About half of the forage supply in Taiwan is domestic. Imported feed relies on shipping schedules, so feed instability is also a concern for dairy farmers. Domestic feed supply is seasonal, as Taiwan's rainy climate is not conducive to producing hay. At the same time, there is a lack of large-scale storage facilities in Taiwan, making the production and transport of silage relatively difficult. The main forage production areas are limited to the vicinity of the farms, and due to lower subsidies (less for forage corn compared to feed corn), farmers have low willingness to produce silage.

Dairy Farms

Most of Taiwan's dairy farms are family-owned, with an average of 150 - 200 head per farm. Due to labor shortages, it is difficult for farms to expand their scale. Although the government has allowed foreign and local workers to be allocated on a 1:1 basis in farm applications this year, the long-term benefits for the industry remain to be seen. Furthermore, for farms looking to expand, especially in the western production areas where land is in short supply, the expansion is challenging. Dairy farmers are hesitant to invest for numerous reasons including the low willingness of younger generations to join the business, strict environmental regulations that increase the difficulty of waste management, and uncertainties about the future prospects of the dairy industry in Taiwan.

Figure 1: Legislators Meet with the Dairy Industry

Photo Credits: Left: Legislator Hung, Sun-Han FB; Right: The Central News Agency

Figure 2: Local Cheese Tasting Activity

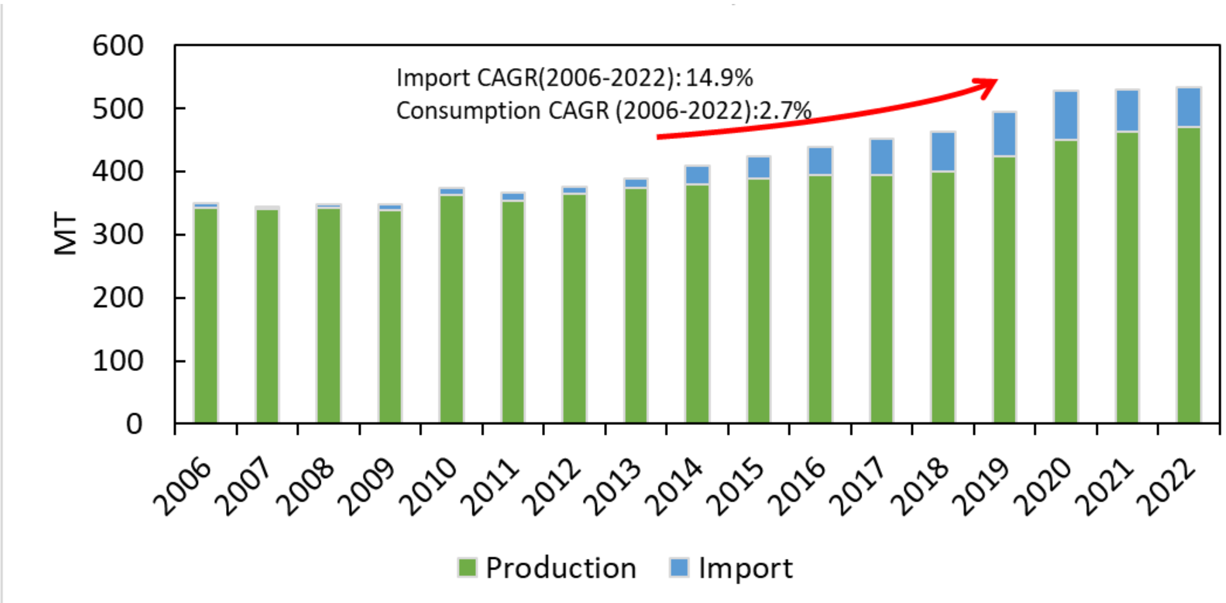
Left: Founder (Isabella Chen) of Lab Man Mano (cheese maker); Right: Handmade Cheese Tasting

Consumption

While the consumption of dairy products in Taiwan is relatively low and less diverse compared to Europe and North America, it has been growing at a high rate. For example, the per capita milk consumption in 2022 was 6 kg (approximately 30 percent) higher than in 2011. From 2006 to the present, the compound annual growth rate (CAGR) for milk consumption has been 2.7 percent, and the CAGR for imported milk is even higher at 14.9 percent (see Figure 3). It is expected that milk consumption in Taiwan will continue to increase, and the market share of imported milk will also rise.

Taiwan’s goat milk market relies heavily on special delivery orders but recently goat milk can also be found in chain supermarkets. Retail customers can purchase goat milk more easily than in the past. Goat milk production and consumption for MY 2023 is estimated at 12,000 MT and forecast to remain stable in the short-term.

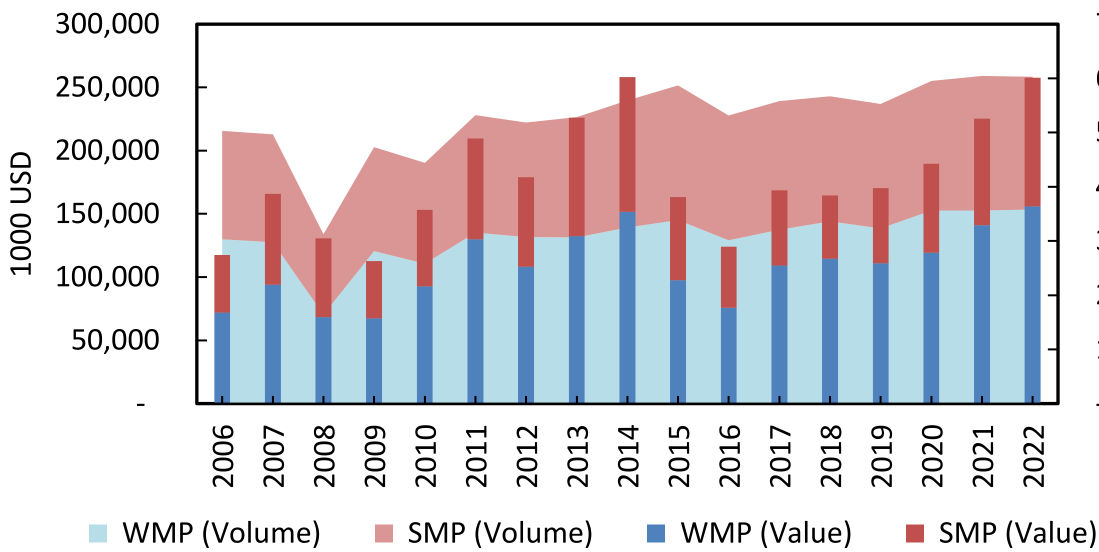
Figure 3: Fluid Milk Consumption (2006-2022)



Data Source: MOA

Milk powder consumption is based entirely on imports. In recent years, milk powder import volume has remained relatively unchanged. Since 2020, the import price has increased by over 30 percent (see Figure 4). In MY 2022, consumption of dry whole milk powder was 35,804 MT and the consumption of nonfat dry milk was 24,518 MT. New Zealand is Taiwan's largest supplier of milk powder with almost 90 percent market share.

Figure 4: Taiwan Milk Powder Imports by Value and Volume, 2006-2022



Data Source: TDM

There has been significant growth in demand for other dairy products such as cheese (see Table 2). The import volume of cheese has grown by 50 percent in the past decade, with consumption reaching 35,387 tons in 2022 compared to 23,066 tons in 2012. Although there are now many cheese options available in the Taiwan market, sliced cheese, soft cheese, and baked cheese remain the main choices. Additionally, as people in Taiwan pursue food safety and health trends, it is likely they will increasingly prefer traditional cheese and reduce the demand for processed cheese.

While yogurt is commonly consumed in European and North American diets, Taiwan consumers prefer yogurt drinks. In addition to competition in the dairy beverage market, these products also compete with grain-based milks available in the market, reflecting Taiwan's traditional culture of consuming soy milk or rice milk.

Table 2: Taiwan Dairy Product Annual Per Capita Consumption

kg/person Year	2011	2016	2017	2018	2019	2020	2021	2022
Fresh Milk	16.61	17.98	18.74	20.37	21.17	21.67	21.69	22.21
Milk Powder	3.21	3.03	3.12	3	2.89	2.99	2.87	2.74
Other dairy product	1.69	3.52	3.89	3.76	4.1	4.38	4.78	4.87

Data Source: MOA

Trade

Partly due to the introduction of American liquid milk in Costco, Taiwan consumers have gradually come to accept imported liquid milk. In 2020, the proportion of imported liquid milk in Taiwan's overall liquid milk reached 15 percent. In MY 2022, even with the residual supply disruptions caused by the COVID pandemic, the market share of imported liquid milk was 11.7 percent.

Taiwan’s main liquid milk supply sources are the United States and New Zealand. According to NAIF, the average import price of liquid milk in 2021 was NT$33.3 per kg. In 2022, the average import price of liquid milk increased 25 percent to NT$41.6. Major fluid milk importers are Costco and dairy companies. Historically, the price of American ESL (Extended Shelf Life) milk was only about 60 percent of the price of domestic fresh milk in Taiwan. This year, however, the prices of American fresh milk and domestic fresh milk on the shelves of Costco have become very close (2.22 USD/L). If the prices of imported dairy products continue to creep closer to local dairy products, imports will lose price competitiveness.

Liquid milk is still a protected commodity by the Taiwan government. According to WTO notification data, in the past five years, the quantity exceeding the Special Safeguard (SSG) was approximately 1,000 to 2,000 tons annually, mainly from U.S. imports. If the quantity exceeds the SSG, an additional 33.3 percent tariff is imposed, equivalent to 0.66 USD per kilogram (WTO member) (see Table 3 below and Policy section).

Table 3: Liquid Milk Special Safeguard Measures Applied (2018-2022)

Year	Volume-based (tons)	Price-based
2018	2706.687	218.909
2019	1411.597	-
2020	747.301	0.487
2021	225.701	5.476
2022	1656.958	-

Source: WTO notifications (WT/TPR/S/448)

According to data from the Food Industry Research and Development Institute (FIRDI), over 80 percent of raw milk in Taiwan is processed into fresh milk, with 70 percent of fresh milk being sold at retail and only 30 percent being sold to other business. In 2022, the average purchase price of raw milk in Taiwan was NT$35.64/liter (USD $1.13), while the final product was sold at approximately NT$90/liter (USD $2.86) The cost breakdown of Taiwan fresh milk is reported to be roughly 35 percent for raw milk, 20 percent for processing and transportation by dairy factories, 35 percent for shelf fees in retail channels, and 10 percent for other expenses or profit (see Figure 5). High retail channel fees are also a concern for dairy farmers and they lobby the government to provide assistance in this regard. If retailers start importing liquid milk in the future, they will expect to earn more profit.

Uni-President (統一) is and dairy company and retailer. In the past, Uni-President only stocked their own Ruisui brand for fresh milk. Today, one can see imported milk displayed on the shelves of convenience stores, along with promotional activities (see Figure 6). Dairy companies are actively testing the waters to understand the public's acceptance of imported milk.

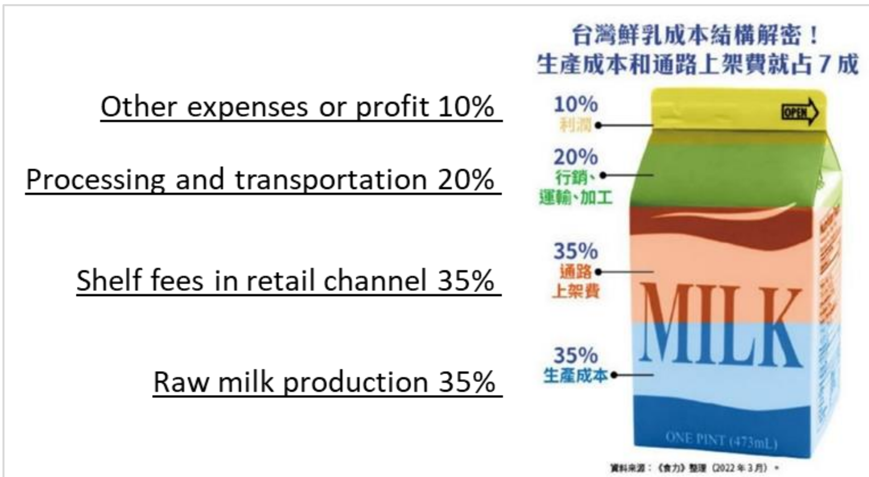


Figure 5: Taiwan Fresh Milk Cost Breakdown

Source: Food Next, 2022.03

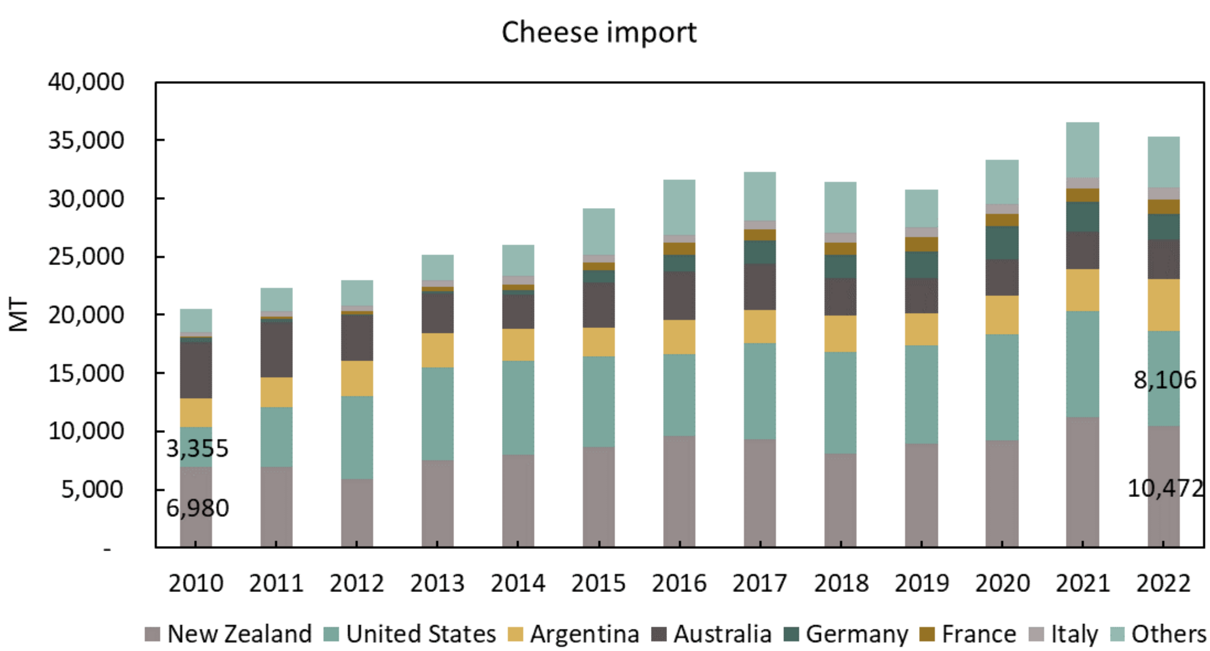
Figure 5: Fresh Milk at Taiwan Chain Convenience Store and Sales Promotion

Source: Author Photos

For butter, year-to-date import volume has decreased by 7 percent compared to MY 2022. MY 2023 butter imports are thereby estimated down to 22,000 MT. The main reason for the decrease is strong demand in Europe, leaving the import supply from France reduced. However, Taiwan domestic butter demand remains stable and imports are forecast at 24,000 MT for MY 2024. Although prices at the source have already been adjusted downward, import prices remain relatively high.

New Zealand and the United States supply more than half of the cheese in Taiwan, with 30 percent and 23 percent market share, respectively. Over the past decade, New Zealand has consistently been Taiwan's largest cheese supplier. However, as Taiwan's cheese demand has increased, New Zealand's supply growth has not matched that of the United States. Since 2010, cheese supply from the United States has increase by 150 percent, while New Zealand has only seen a 50 percent increase. Australia, which was once the second-largest cheese supplier, is one of the few countries with a decrease in cheese supply.

Figure 6: Taiwan Cheese Imports by Country (Volume Basis), 2010-2022



Data source: TDM

Policy

After Taiwan's WTO accession in January 2002, fluid milk imports are subject to Tariff Rate Quota (TRQ) and Special Safeguard (SSG) controls. Sheep and goat milk are not included in the TRQ and SSG controls.

Tariff Rate Quota (TRQ): The annual TRQ volume for fluid milk is 21,298 MT with 15 percent in-quota tariff, while the out-of-quota tariff is NT$15.6/kg (USD $0.49/kg). Import quota rights are auctioned once a year. All importers registered with Taiwan's Board of Foreign Trade are eligible to bid on quota rights. The Bank of Taiwan administers the TRQ allocations through a competitive process.

In 2023, as specified under ANZTEC, 10,000 MT of fluid milk from New Zealand is eligible to enter Taiwan duty-free. All tariff restrictions for New Zealand dairy products will end by 2025.

Special Safeguard (SSG): Taiwan also adopted an SSG to control the volume and price of fluid milk. The SSG volume/price will be announced at the beginning of each year and the volume is measured by the 3-year average consumption change and import volume. The 2023 SSG volume for fluid milk is 52,228.7 MT for fresh milk and 19025.6 MT for other fluid milk with a total of 71254.3 MT. If fluid milk imports exceed the notified SSG volume, an additional 33.3 percent tariff rate is imposed. The SSG price trigger for fluid milk is NTD 17 CIF/liter.

<u>Fresh Milk</u>: 04011010, 04012010, 04014010, 04015010, 04029910

<u>Other Fluid Milk</u>: 04011020, 04012020, 04014020, 04015020, 04029920, 04029992, 04039029, 04039040, 04039059, 04039090, 18069053, 18068055, 19019025, 19019027

<u>ANZTEC TRQ</u>: 04011010, 04011020, 04012010, 04012020, 04014010, 04014020, 04015010, 04015020

<u>Table 4: Summary of Major Dairy Product Tariffs</u>

Product	**Tariff Rate**	**Temporary Tariff (~2023/12/31)**
Fluid milk (most)	15.6 NTD/kg	-
Cheese (most)	5%	-
Butter (most)	5%	-
Whole Milk Powder	10%	5%
Skim Milk Powder	10%	5%

Note: Please refer to the official announcement for the actual tariff rate.

To facilitate the regulation and tracking of frozen milk, Taiwan proposed several new HS codes for frozen milk as Table 5. The implementation date is not yet published.

Table 5: New Frozen Milk HS Code Summary

HS code	Product Name	Status
0402.91.90.00-5	Other milk and cream, not containing added sugar or other sweetening matter	Deleted
0402.91.90.10-3	Evaporated milk (concentrated milk), not containing added sugar or other sweetening matter, of a fat content, by weight, not exceeding 1%, frozen	New
0402.91.90.20-1	Evaporated milk, (concentrated milk), not containing added sugar or other sweetening matter, of a fat content, by weight, exceeding 1% but not exceeding 7.5%, frozen	New
0402.91.90.30-9	Evaporated milk (concentrated milk), not containing added sugar or other sweetening matter, of a fat content, by weight, exceeding 7.5% but not exceeding 15%, frozen	New
0402.91.90.40-7	Evaporated milk (concentrated milk), not containing added sugar or other sweetening matter, of a fat content, by weight, exceeding 15%, frozen	New
0402.91.90.90-6	Other milk and cream, not containing added sugar or other sweetening matter	New

Source: (WTO/SPS/TPKM618)

CNS (National Standards of the Republic of China)

CNS 3056 (Fresh milk): This standard applies to the milk produced with raw milk (as specified in CNS 3055) as the raw material, and it shall be fully kept in cold storage after it is pasteurized and packaged for human consumption. [Shall be fully kept in cold storage at temperature not higher than 7 °C.]

CNS 13292 (Sterilized milk): This standard applies to milk produced with raw milk (as specified in CNS 3055) or fresh milk (as specified in CNS3056) as raw material, and it could be store at room temperature after it is pasteurized and packaged for human consumption.

Sanitation Standard and Import Regulation:

The "Sanitation Standard for Milk and Milk products" was repealed on July 1, 2021 and the current regulations are in "Sanitation Standard for General Foods", "Sanitation Standard for Microorganism in Foods" and "Standards for Specification, Scope, Application and Limitation of Food additives". Since May 2020, TFDA requires dairy products for food use under HS code 0401, 0402, 0403, 0404, 0405 and 0406 to be accompanied by official sanitary certificates. (G/SPS/N/TPKM/519). The official certificates should be issued by the competent authority of the exporting country indicating that the attested products are suitable "for human consumption", or "in compliance with relevant food safety and sanitary regulations".

Melamine and veterinary drug residues are prohibited in milk and milk products. Taiwan requires that imports of U.S.-origin fresh milk and milk products be accompanied by a Veterinary Service (VS) 16-4 export certificate for animal products.

For additional information, please see the instructions in the latest international regulations (IRegs) for animal product exports from USDA APHIS and the worksheet of dairy product sanitary certificate from USDA AMS.

Dairy, Milk, Fluid: Production, Supply, and Distribution

Dairy, Milk, Fluid	2022		2023		2024	
Market Year Begins	Jan 2022		Jan 2023		Jan 2024	
Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Cows In Milk (1000 HEAD)	66	66	66	66	0	65
Cows Milk Production (1000 MT)	460	463	465	465	0	470
Other Milk Production (1000 MT)	11	11	10	12	0	12
Total Production (1000 MT)	471	474	475	477	0	482
Other Imports (1000 MT)	62	62	70	66	0	70
Total Imports (1000 MT)	62	62	70	66	0	70
Total Supply (1000 MT)	533	536	545	543	0	552
Other Exports (1000 MT)	0	0	0	0	0	0
Total Exports (1000 MT)	0	0	0	0	0	0
Fluid Use Dom. Consum. (1000 MT)	480	485	485	490	0	500
Factory Use Consum. (1000 MT)	53	51	60	53	0	52
Feed Use Dom. Consum. (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	533	536	545	543	0	552
Total Distribution (1000 MT)	533	536	545	543	0	552
(1000 HEAD) ,(1000 MT)						

Dairy, Cheese: Production, Supply, and Distribution

Dairy, Cheese	**2022**		**2023**		**2024**	
Market Year Begins	**Jan 2022**		**Jan 2023**		**Jan 2024**	
Taiwan	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Beginning Stocks (1000 MT)	0	0	0	0	0	0
Production (1000 MT)	0	0	0	0	0	0
Other Imports (1000 MT)	35	35	35	34	0	36
Total Imports (1000 MT)	35	35	35	34	0	36
Total Supply (1000 MT)	35	35	35	34	0	36
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)	35	35	35	34	0	36
Other Use, Losses (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	35	35	35	34	0	36
Total Use (1000 MT)	35	35	35	34	0	36
Ending Stocks (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	35	35	35	34	0	36
(1000 MT)						

Dairy, Butter: Production, Supply, and Distribution

Dairy, Butter	2022		2023		2024	
Market Year Begins	Jan 2022		Jan 2023		Jan 2024	
Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	0	0	0	0	0	0
Production (1000 MT)	0	0	0	0	0	0
Other Imports (1000 MT)	24	23	25	22	0	24
Total Imports (1000 MT)	24	23	25	22	0	24
Total Supply (1000 MT)	24	23	25	22	0	24
Other Exports (1000 MT)	0	0	0	0	0	0
Total Exports (1000 MT)	0	0	0	0	0	0
Domestic Consumption (1000 MT)	24	23	25	22	0	24
Total Use (1000 MT)	24	23	25	22	0	24
Ending Stocks (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	24	23	25	22	0	24
(1000 MT)						

Dairy, Milk, Nonfat Dry: Production, Supply, and Distribution

Dairy, Milk, Nonfat Dry	**2022**		**2023**		**2024**	
Market Year Begins	**Jan 2022**		**Jan 2023**		**Jan 2024**	
Taiwan	**USDA Official**	**New Post**	**USDA Official**	**New Post**	**USDA Official**	**New Post**
Beginning Stocks (1000 MT)	0	0	0	0	0	0
Production (1000 MT)	0	0	0	0	0	0
Other Imports (1000 MT)	25	25	20	23	0	24
Total Imports (1000 MT)	25	25	20	23	0	24
Total Supply (1000 MT)	25	25	20	23	0	24
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)	25	25	20	23	0	24
Other Use, Losses (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	25	25	20	23	0	24
Total Use (1000 MT)	25	25	20	23	0	24
Ending Stocks (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	25	25	20	23	0	24
(1000 MT)						

Dairy, Milk, Dry Whole Milk Powder: Production, Supply, and Distribution

Dairy, Dry Whole Milk Powder	2022		2023		2024	
Market Year Begins	Jan 2022		Jan 2023		Jan 2024	
Taiwan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	0	0	0	0	0	0
Production (1000 MT)	0	0	0	0	0	0
Other Imports (1000 MT)	36	36	32	34	0	34
Total Imports (1000 MT)	36	36	32	34	0	34
Total Supply (1000 MT)	36	36	32	34	0	34
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)	36	36	32	34	0	34
Other Use, Losses (1000 MT)	0	0	0	0	0	0
Total Dom. Consumption (1000 MT)	36	36	32	34	0	34
Total Use (1000 MT)	36	36	32	34	0	34
Ending Stocks (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	36	36	32	34	0	34
(1000 MT)						

Attachments:

No Attachments