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## **China - Peoples Republic of**

### **Dairy and Products Annual**

#### **China's Dairy Imports Increase to Meet Growing Demand, But U.S.-Origin Products Face Strong Headwinds**

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**Report Highlights:**

Overall dairy consumption in China is expected to increase due to changes in Chinese consumer diets resulting from urbanization. Decreasing domestic production (34.7 million metric tons, a 1-percent decrease from 2018) will result in increased demand for imported dairy products, leading to increased imports of fluid milk (up 13 percent year on year), whole milk powder (up 15 percent), and non-fat dry milk powder (or skim milk powder) (up 11 percent). However, in July of this year, China placed additional tariffs of 25 percent on the majority of U.S.-origin dairy products, complicating U.S. dairy exports to this growing market.

## FLUID MILK

Fluid Milk PS&D Table

Dairy, Milk, Fluid Market Begin Year	2017		2018		2019	
	Jan 2017		Jan 2018		Jan 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
China						
Cows In Milk	7200	7200	7200	6600	0	6300
Cows Milk Production	35450	35450	37200	35000	0	34700
Other Milk Production	1500	1500	1500	1500	0	1500
Total Production	36950	36950	38700	36500	0	36200
Other Imports	668	668	750	750	0	850
Total Imports	667	667	750	750	0	850
Total Supply	37617	37617	39450	37250	0	37050
Other Exports	23	23	20	20	0	20
Total Exports	22	22	20	20	0	20
Fluid Use Dom. Consum.	14792	14792	14960	14900	0	15000
Factory Use Consum.	22803	22803	24470	22330	0	22030
Feed Use Dom. Consum.	0	0	0	0	0	0
Total Dom. Consumption	37595	37595	39430	37230	0	37030
Total Distribution	37617	37617	39450	37250	0	37050
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### Production:

*Milk production will decrease by about 1 percent in 2019 due to the shrinking herd size*

Chinese milk production is forecast to decrease to 34.7 million tons in 2019, about 1 percent lower than 2018. The primary cause of this production decrease lies with China's shrinking dairy herd. China's dairy herd is shrinking because small dairy operations are exiting the market faster than the mid- to large-scale dairies are adding inventory. These small-scale farms, often located in Southern China, are retreating from the market due to increasing feed costs, stricter environmental regulations, and low milk prices.

Input costs are rising in part due to China's recent imposition of additional tariffs on key feed ingredients from the United States. Alfalfa comprises about 13 percent of the total feed cost per cow in China. U.S. alfalfa accounts for over 90 percent of China's total alfalfa imports. Soybean meal accounts for about 20 percent of the total feed cost and a large percentage traditionally comes from U.S.-origin soybeans that are crushed in China. On July 6, 2018, China implemented additional tariffs of 25-percent on both U.S.-origin alfalfa hay and soybeans. The Chinese dairy industry estimates that these additional tariffs alone will result in a 6-percent increase in the total production cost of fluid milk.

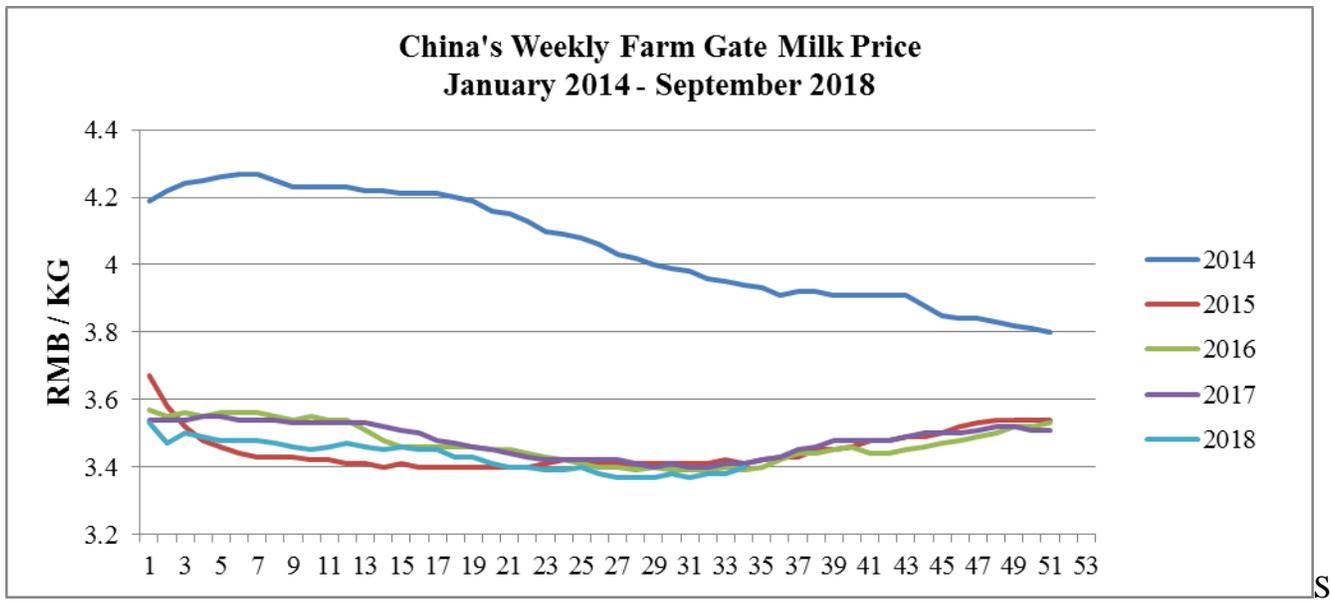
Unlike other dairy producing nations, China's dairy producing industry is very fragmented and most producers are not vertically integrated with the processors. On the other hand, China's top 8 dairy processing companies (many of which are state-owned enterprises) collect over 70 percent of the milk in China, allowing them to essentially set domestic prices. The milk price in 2019 is forecast to increase moderately, but not enough to keep pace with rising costs. Hence, overall profitability for dairy farmers will decrease.

Continued implementation of China's strict environmental laws is also putting pressure on operations, particularly smaller ones. In the last two years, China's central government has ratcheted up the pressure on provincial governments to move farming operations away from highly-populated areas and waterways. This has resulted in a number of farming operations either moving north or west, or closing down altogether. Smaller farms generally lack the capital to move or retool and have subsequently exited the market, especially in the south of China. The Ministry of Agriculture and Rural Affairs (MARA) reported that larger dairy farms (inventory of 100 head or more) occupied only 50 percent of the market in 2016. That number jumped to 58.3 percent in 2018.

China's fluid milk price is also influenced by the international prices for Whole Milk Powder (WMP) and Non-Fat Skim Milk Powder (SMP). China's production cost for fluid milk is much higher than in traditional dairy producing and exporting nations. The availability of cheap WMP and SMP on the international market puts downward pressure on Chinese milk prices as WMP and SMP can be reconstituted and substitute for Chinese-produced fresh milk. For example, in 2017, China's WMP and SMP imports were 718,000 tons, meeting the demand for roughly 5.7 million tons of fresh milk, or 16 percent of total fluid milk production. In 2018 and 2019, WMP and SMP imports are forecast to continue growing (see WMP and SMP sections below).

Live dairy cattle imports will continue to go down in 2019. China mainly imports dairy cattle from Australia, New Zealand, and Chile for genetic improvement. But under current market conditions, many dairy producers will not be willing to invest in new genetics.

Chinese dairy farms have always slaughtered dairy cattle for beef consumption, especially when relative dairy prices are low and beef prices are high. As a result of recent price fluctuations and greater Chinese demand for beef, a growing number of dairy farms have begun incorporating this consideration into their business model. These operations raise dual purpose cattle to allow greater flexibility when the dairy markets fluctuate. But this trend is still developing and only a few farms have adopted this model.



Source: MARA

**Consumption**

*As overall dairy consumption steadily increases in 2019, increased imports will help offset shrinking domestic production*

In 2019, overall Chinese fluid milk consumption will increase, due to broad growing demand for dairy products in general. However, due to the competitiveness of imported WMP and SMP, consumption of domestically produced fluid milk is forecast to decrease from 39 MMT to 37 MMT in 2019. China’s fluid milk consumption is unique because imported WMP and SMP are frequently reconstituted and consumed as fluid milk, including refrigerated fluid milk, UHT milk, and yogurt. Although China’s Ministry of Agriculture and Rural Affairs has issued notices prohibiting this practice, dairy companies, especially smaller operations, will do so when the price gap between imported WMP/SMP and domestic fluid milk is sufficiently wide.

Despite recent interest in dairy products by Chinese consumers, Chinese dairy consumption is still well below the world average, especially in rural areas. According to China’s 2016 Annual Statistical Year Book, Chinese per capita milk consumption in urban households was 16.5 kg/person and 6.6 kg/person in rural households. For context, the United Nations Food and Agriculture Organization (FAO) estimates the annual global average dairy consumption is over 100 kg/person. As China continues its push towards urbanization, this growing urban population will drive the increased demand for dairy products.

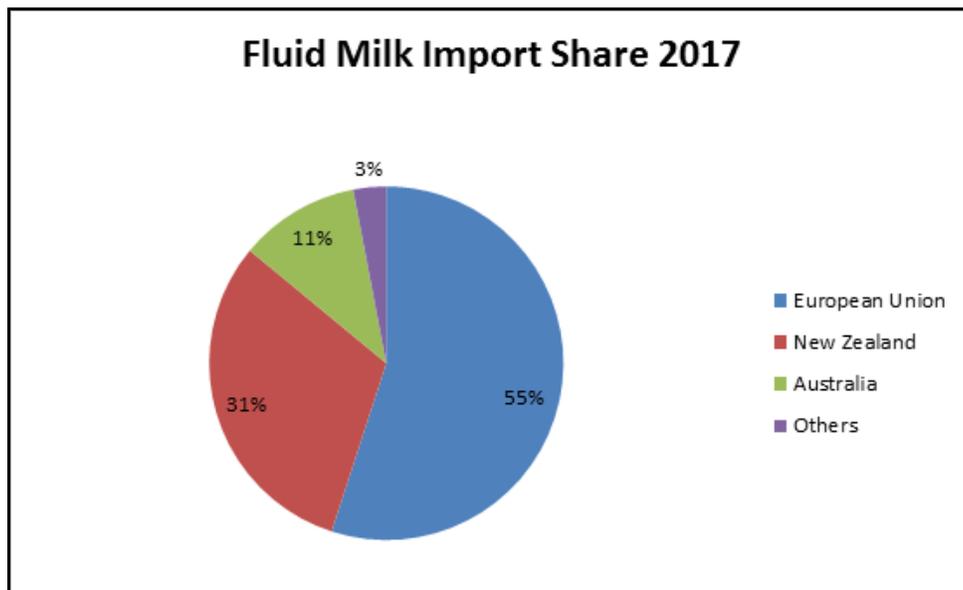
## Trade

*Imports of fluid milk will continue to rise in 2019 due to strong domestic demand for imported dairy products*

Imports of fluid milk in 2019 are forecast to increase to 850,000 tons, representing a 13-percent increase over 2018. The primary fluid milk imports are UHT milk and yogurt, although the growth in 2019 is mostly due to increasing demand for yogurt. Yogurt imports have seen rapid growth in the past few years due to Chinese consumer perception of yogurt as a health food. In addition, dairy processors have focused heavily on promoting yogurt, with near constant in-store promotions. As a result, from 2016 to 2017, China's yogurt imports jumped by over 60 percent. UHT milk imports have also increased, albeit more slowly. From 2016 to 2017, UHT milk imports grew a modest 5 percent.

Both yogurt and UHT milk have benefitted from China's rapid development of its e-commerce platforms which serve as the primary method of sale for these dairy products. While these e-commerce platforms sell a large number of domestically produced dairy products, e-commerce is a reliable source for imported UHT milk and yogurt. Not only do imported yogurt and UHT milk have longer shelf lives, but they also benefit from consumer perception that imported dairy products are safer than domestic products.

The European Union, led by Germany, accounts for over 50 percent of the fluid milk import market in China. For yogurt imports, German accounts for 68 percent of the market, followed by New Zealand with 13 percent. In regards to UHT milk imports, New Zealand accounts for over 30 percent of the import market and continues to add dedicated capacity for the China market. New Zealand and Australia also ship some fresh milk and yogurt to China, but in limited quantities.



Source: China Customs

## Policy:

*China enacted additional tariffs on a number of U.S. exports to China, including dairy*

On June 16, 2018, the People's Republic of China's Ministry of Finance (MOF), State Council Tariff Commission (SCTC) announced a list of U.S. products subject to an additional 25-percent import tariff in response to the United States imposing tariffs related to the U.S. Section 301 Investigation. The dairy products included in this list are milk, cream, whole milk powder, skim milk powder, yogurt, whey and modified whey, butter, and cheese. The additional tariffs went into effect on July 6, 2018. For details, please refer to FAS GAIN reports [CH18034](#) and [CH18061](#).

*Complicated registration process continues to frustrate overseas dairy facilities*

According to China's 2015 Food Safety Law, overseas facilities that export dairy products to China must comply with Decree 145, administered by the former Certification and Accreditation Administration (CNCA). Although China's government has recently undergone a major restructuring and the responsibility of overseas facility registration now lies with the Registration Division of the Import Export Food Safety Bureau (FSB) within the General Administration of Customs, the underlying registration requirement has not changed. Because FSB has not updated the U.S. dairy registration list since February 2018, a number of qualified U.S. dairy companies have been unable to register or update their facility's information and ship product to China. For further information on the registration requirement, please see FAS GAIN Report [12020](#) and visit the U.S. FDA website for registration guidance at:

<https://www.fda.gov/food/guidanceregulation/guidancedocumentsregulatoryinformation/importexports/cm378777.htm>.

## WHOLE MILK POWDER

Whole Milk Powder PS&D table

Dairy, Dry Whole Milk Powder Market Begin Year China	2017		2018		2019	
	Jan 2017		Jan 2018		Jan 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Beginning Stocks</b>	150	150	50	50	0	0
<b>Production</b>	1350	1350	1300	1300	0	1260
<b>Other Imports</b>	470	470	500	520	0	600
<b>Total Imports</b>	470	470	500	520	0	600
<b>Total Supply</b>	1970	1970	1850	1870	0	1860
<b>Other Exports</b>	2	2	2	2	0	2
<b>Total Exports</b>	2	2	2	2	0	2
<b>Human Dom. Consumption</b>	1918	1918	1848	1868	0	1858
<b>Other Use, Losses</b>	0	0	0	0	0	0
<b>Total Dom. Consumption</b>	1918	1918	1848	1868	0	1858
<b>Total Use</b>	1920	1920	1850	1870	0	1860
<b>Ending Stocks</b>	50	50	0	0	0	0
<b>Total Distribution</b>	1970	1970	1850	1870	0	1860

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### Production

*Chinese Whole Milk Powder production will decrease by 3 percent in 2019*

Production of WMP in 2019 is forecast to decrease to 1.26 million metric tons, about 3 percent lower than 2018. Producing WMP in China is generally a profit-losing venture due to the high cost of production and lack of competitiveness vis-à-vis internationally produced WMP. However, milk production in China is counter-cyclical to consumption, meaning that the peak production season from December to March is the low consumption season. As a result, many dairy facilities convert their milk to WMP during this time. During the peak consumption season from July to September, milk production is at its lowest, leading many dairy companies to utilize WMP, from both domestic and imported sources, to supplement their fluid milk supplies through reconstitution. However, in 2019, as domestic milk production decreases, domestic WMP production is expected to also decrease.

In addition to the domestic price cycle, Chinese WMP also competes with WMP on the international market. Any further increases of milk production in the worldwide market will further lower the international WMP price and decrease demand for domestic WMP. Not only is imported WMP cheaper, but it is also higher quality; imported WMP enjoys a shelf life of two years versus domestic WMP's one

year. Several of China's large dairy companies have invested in overseas dairy producing capacity, producing WMP and other dairy products for the specific purpose of targeting China's import market.

## **Consumption**

*WMP consumption will remain flat in 2019*

Overall consumption of WMP in 2019 is forecast to remain flat at about 1.87 million tons. This forecast accounts for the changing ratio of imported WMP utilization to domestic WMP. In 2019, imports are expected to account for nearly a third of all WMP consumed in China, up from 27 percent in 2018, which was up from 24 percent in 2017.

In fact, imported WMP consumption would be forecast higher in 2018, but for the competitiveness of imported SMP. In the majority of applications, WMP and SMP are similar products and can generally be used interchangeably. In 2019, world SMP prices are expected to be low and will be competitive relative to WMP, encouraging higher utilization by China's dairy processors.

Another factor for stagnating WMP consumption is the lack of product innovation. One of the key product categories to utilize WMP is sweetened milk-based beverages. A few years ago, this product category was popular with younger Chinese consumers, but recently, there has been a dearth in popular new products. Also, high-end Chinese consumers are increasingly wary of dairy products using reconstituted ingredients. As a result, many manufacturers are abandoning WMP for fresh milk in their high-value products.

WMP consumption in 2018 is revised upwards from 1.85 MMT to 1.87 million tons to reflect the slightly reduced domestic milk production, encouraging more WMP to be substituted for fluid milk.

## **Trade**

*Imports will continue to grow in 2019*

Due to decreased fluid milk production in 2019, China will look to import more WMP from world markets. As a result, imports are forecast to grow to 600,000 tons in 2019, about 15 percent higher than 2018. Currently, over 90 percent of imported WMP is supplied by dairies located in New Zealand. Preferential tariffs under the New Zealand – China Free Trade Agreement, coupled with well-developed distribution infrastructure, have established New Zealand as the primary WMP supplier. While U.S.-origin WMP imports were increasing in recent years, the additional 25-percent tariffs applied to certain U.S. imports will slow that progress.

Estimated WMP imports in 2018 are revised upwards from 500,000 tons to 520,000 tons, reflecting trade numbers.

China exports a negligible amount of WMP to Hong Kong.

## **NON-FAT DRY MILK (SKIM MILK POWDER)**

## Nonfat Dry Milk (Skim Milk Powder) PS&D table

Dairy, Milk, Nonfat Dry Market Begin Year China	2017		2018		2019	
	Jan 2017		Jan 2018		Jan 2019	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	0	0	0	0	0	0
Production	30	30	20	20	0	15
Other Imports	247	247	275	275	0	305
Total Imports	247	247	275	275	0	305
Total Supply	277	277	295	295	0	320
Other Exports	1	1	0	0	0	0
Total Exports	1	1	0	0	0	0
Human Dom. Consumption	276	276	295	295	0	320
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	276	276	295	295	0	320
Total Use	277	277	295	295	0	320
Ending Stocks	0	0	0	0	0	0
Total Distribution	277	277	295	295	0	320

(1000 MT)

### Production

*Production will decrease to 15,000 tons in 2019*

China produces very little cream and therefore SMP production is quite low. As a result of low international SMP prices, SMP production in 2019 is forecast to fall to 15,000 tons, 25 percent lower than 2018.

### Consumption

*Post forecasts 2019 consumption will reach 320,000 tons, about 8.5 percent higher than 2018*

As discussed above, SMP utilization is relatively interchangeable with WMP and consumption is driven by price dynamics. With low international prices for SMP, Chinese processors are increasing their consumption of SMP. SMP is primarily used in dairy beverages, infant formula, and the bakery sector. In addition, the Chinese feed industry has been increasing their utilization of SMP as feed for

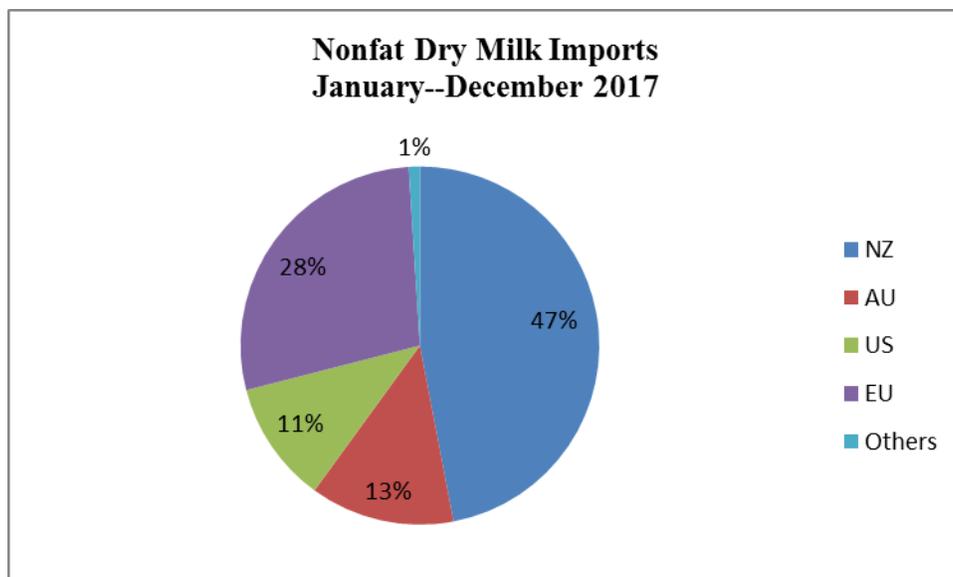
the swine industry.<sup>1</sup>

## Trade

*Post forecasts 2019 imports will reach 305,000 tons, about 11 percent higher than 2018.*

China has little SMP production and thus relies on imports to meet demand in the food processing and infant formula sectors, which are the traditional channels for SMP. With the new development of feed usage for SMP, China's imports of SMP will continue to grow.

The United States is the third largest SMP exporter to China, following New Zealand and the EU. However, the recent additional tariffs placed on U.S.-origin SMP will significantly depress U.S. exports to China.



Source: China Customs

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<sup>1</sup> SMP utilization in the Chinese swine industry is small and difficult to measure and therefore, is not accounted for in the SMP PS&D table under Other Use.