

Technical report on trade of milk powder into South Korea

March 2020

LAN Seoul

1. Introduction

The Netherlands is the largest exporter of milk powder into Korea. Especially, Milk Powder Preparation was the 4th largest commodity, among all kinds of trade commodities including non-agricultural products exported from the Netherlands into Korea in 2019. Korea is an interesting market for foreign dairy exporters because raw milk prices are very expensive in Korea; it costs more than twice as much as the world average raw milk. In spite of that, foreign final products such as milk and yoghurt have had difficulty in entering the market due to several barriers such as high customs duties and political opposition by farmers. On the other hand, milk powder has largely been imported as an ingredient for local production of dairy, confectionery and bakery products, without remarkable barriers. Imported milk powder has played an important role in lowering costs for food production in Korea.

Milk powder products imported into Korea varies from Skim Milk Powder (SMP) to Whole Milk Powder (WMP), Skim Milk Powder Preparation (SMPP), Whole Milk Powder Preparation (WMPP), Cocoa Preparation (CP), Whey Powder, Whey Protein, Casein and Lactose.

Table 1, Definition of milk Powder products

	Definition	Korea HS code ¹	Use
SMP	Skim Milk Powder	0402101010	Flavored milk, Yoghurt, Ice cream and Infant formula
WMP	Whole Milk Powder	0402211000	
S(/W)MPP1	S(/W)MP + Other milk powder products (Whey powder or whey protein)	SMPP: 0404901000 WMPP: 0404902000	Flavored milk, Yoghurt and Ice cream,

¹ Korean HS code is a 10-digit code, which is slightly different from EU's 8-digit HS code. The 1st 4 digits are almost the same between Korea and EU codes.

S(/W)MPP2	S(/W)MP + Other powder products (malt, flour, sugar or starch)	SMPP: 1901902010 WMPP: 1901902020	Ice cream
CP	SMP + Cocoa mass	1806209010	Chocolate, Ice cream and Choco snack/biscuit
Whey Powder	Whey protein <80%	040410	Infant formula, Flavored milk and Beverage,
Whey Protein	Whey protein >80%	3502200000	Yoghurt and Infant formula
Casein	Casein and Caseinate	3501	Coffee creamer and Artificial milk powder
Lactose	Lactose	1702111000 1702191000	Dairy products and Medicine

2. General information on milk powder

1) Customs duty

The basic tariffs of skim milk powder (SMP) and whole milk powder (WMP) are very high in Korea: 176% and 573% respectively. Therefore, S(/W)MP has been imported into Korea within inquota quantity of WTO or FTA. Dutch milk powder exporters have historically focused on S(/W)MPP rather than S(/W)MP, because S(/W)MPP has no quota limitation, and the Netherlands is very competitive in the world in the blending technology for production of S(/W)MPP.

As shown in Table 2, Under the EU-Korea FTA signed in 2011, FTA quotas were set for S(/W)MP and Whey Powder to exempt import tariffs within inquota quantity. This quota is managed by the Korea Agro-Fisheries Trade Corporation through auction as stipulated in the FTA. The collective quantity of FTA quota has increased and stimulated the imports of S(/W)MP and Whey Powder into Korea.

S(/W)MPP1, S(/W)MPP2, CP, Whey Protein, Casein and Lactose have “staging categories” under the EU-Korea FTA. The tariffs of “staging category 10” commodities such as S(/W)MPP1 and S(/W)MPP2 are 6.5% as of the period between 1 July 2019 and 30 June 2020. They will become zero as of 1 July 2021. As for “staging category 5” commodities such as CP, Whey Protein, Casein and Lactose, the tariffs have already been zero since 1 July 2016.

Table 2, Quota and Tariffs for milk powder products

	Tariff general (%)	WTO			EU-Korea FTA		
		Inquota tariff (%)	Quota (ton)	Managed by	Staging category (yrs) ²	Quota change (ton)	Managed by
SMP	176	20	573	KDIA ³	-	1,000→1,512 (in 16 years) ⁴	aT ⁵
WMP	573	40	40	KDIA			
S(/W)MPP1	36	-	-		10	-	-
S(/W)MPP2	36	-	-		10	-	-
CP	8	-	-		5	-	-
Whey Powder	49.5	20	54,233	KDIA	-	3,350→ 4,243 (in 10 years) ⁶	KDIA
Whey Protein	8	-	-		5	-	-
Casein	5 or 20	-	-		5	-	-
Lactose	49.5	20	9,400	KDIA+6as sociations	5	-	-

2) Local situation

S(/W)MP and S(/W)MPP imports have been fluctuated depending on the local situation of S(/W)MP stock. When the stock declined, milk powder imports went up to cover the shortage in the local market. In 2011 when there were massive outbreaks of Foot and Mouth Disease in Korea, the local S(/W)MP stock was almost exhausted, and milk powder imports were a historic record high, particularly in S(/W)MPP imports. That was exceptionally possible because the Korean government set a provisional quota for S(/W)MP in 2011 to stabilize the domestic market. Some Dutch S(/W)MPP exporters also joined this quota provisionally to have a benefit of the special zero-tariff quota. After FMD was contained in 2012, the domestic dairy industry was turned around, and the stock was slowly recovered.

Since 2004, Korea has signed FTAs with foreign countries such as Chile, the EU,

² From 1 July 2011 (Effectuation date) for the “category” years, the tariffs will gradually go down to zero tariff

³ Korea Dairy Industries Association

⁴ After year 16, the inquota quantity will remain the same as the quantity of year 16

⁵ Korea Agro-Fisheries Trade Corporation

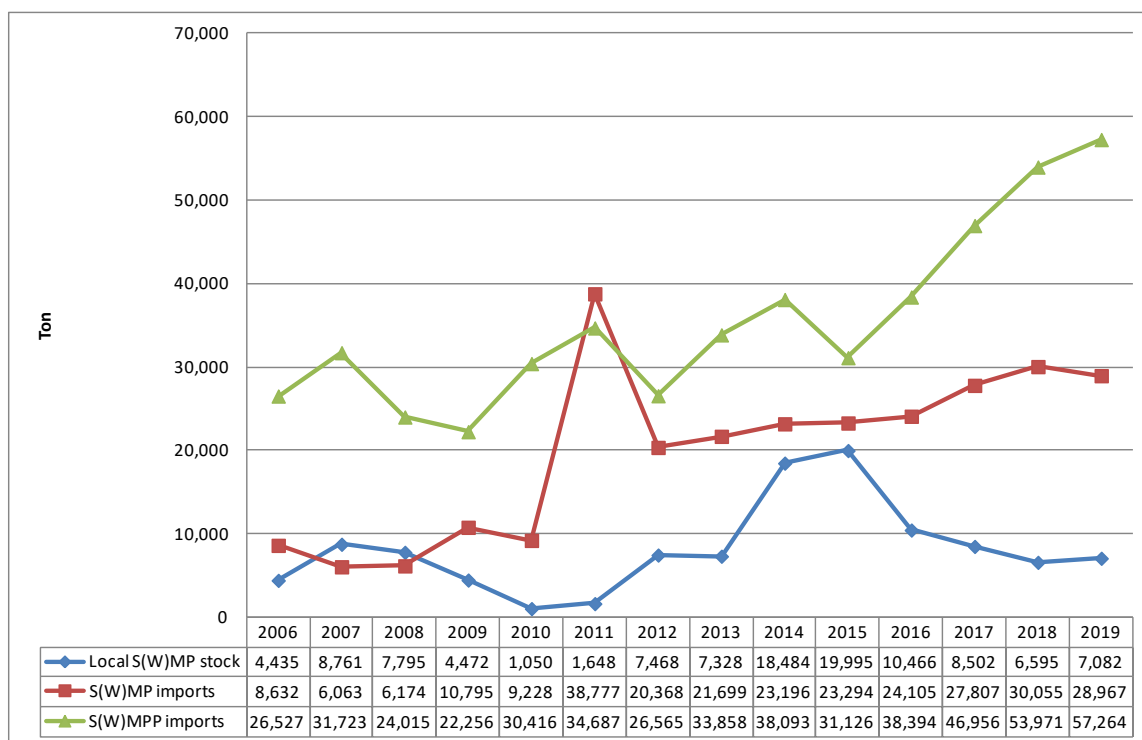
⁶ After year 10, the inquota quantity will become “unlimited”.

the US, Australia and New Zealand. Through the FTAs, milk powder products could increasingly be imported into Korea without tariffs or with lower tariffs. This has increased the price competitiveness of imported milk powder.

The Korean government laid down a new raw-milk pricing scheme called Milk Price Linkage System in August 2013. Before this system was introduced, the Korean government and dairy farmers had to have tough negotiations every 2 or 3 years to set an official price of raw milk. After this MPLS was introduced due to pressures by dairy farmers, the price is yearly set on the basis of farmer's costs and the national inflation. This system, however, faced a criticism that it didn't reflect supply and demand in the market; in spite of over-production of milk and increasing S(/W)MP stocks, the price stayed high. Farmers don't have any reason to innovate for efficient milk production, because the price is guaranteed regardless of the market situation. This has weakened the price competitiveness of local raw milk.

With the reasons mentioned above, since 2015, milk powder imports have steadily increased. The S(/W)MPP increase is more drastic than S(/W)MPP as S(/W)MPP has no limitation/quota in trade.

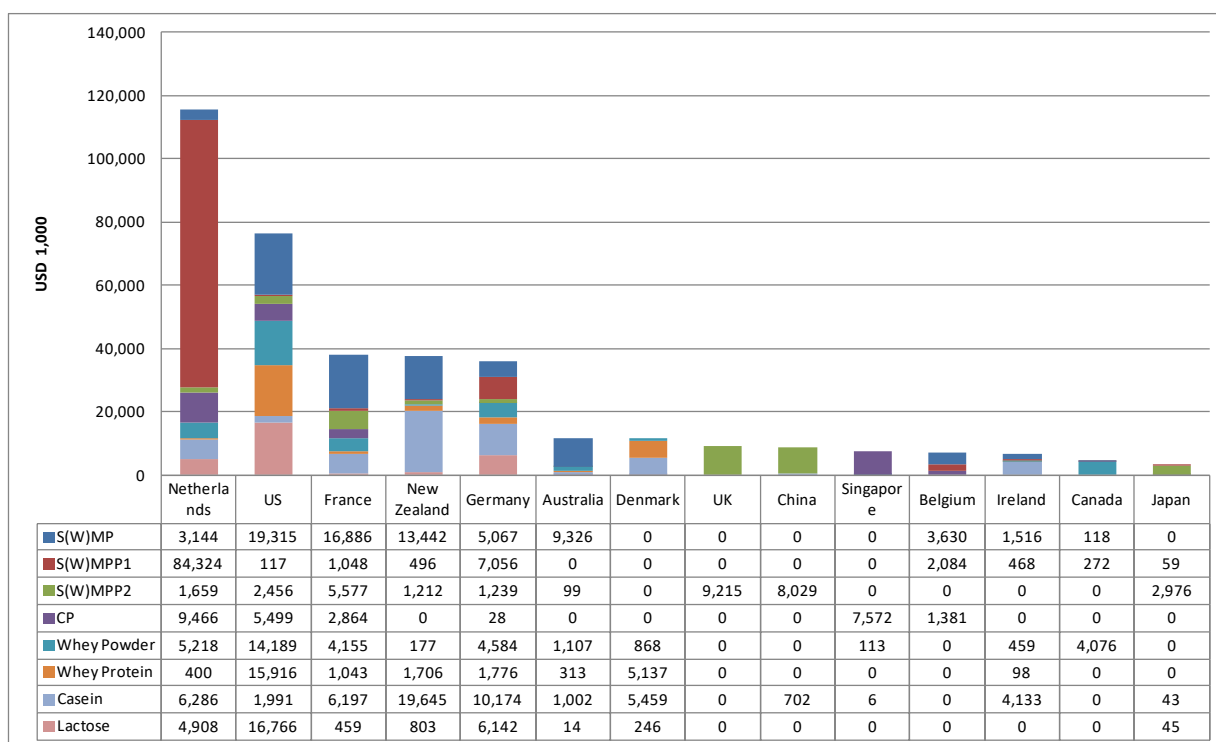
Fig. 1, Local stock and imports of S(/W)MP and S(/W)MPP by year



3) Competition

Countries in Europe, North America and Oceania are mainly competing for the Korean milk powder market. The largest exporter of milk powder into Korea is the Netherlands, accounting for 29% (USD 115 million) of the total milk powder imports (USD 396 million), followed by the US, France, New Zealand and Germany. The Netherlands is strong in S(/W)MPP1, CP and Whey Powder, while the US is strong in Whey Protein, Whey Powder and S(/W)MP. France is doing good business with S(/W)MP. New Zealand is the largest exporter of Casein.

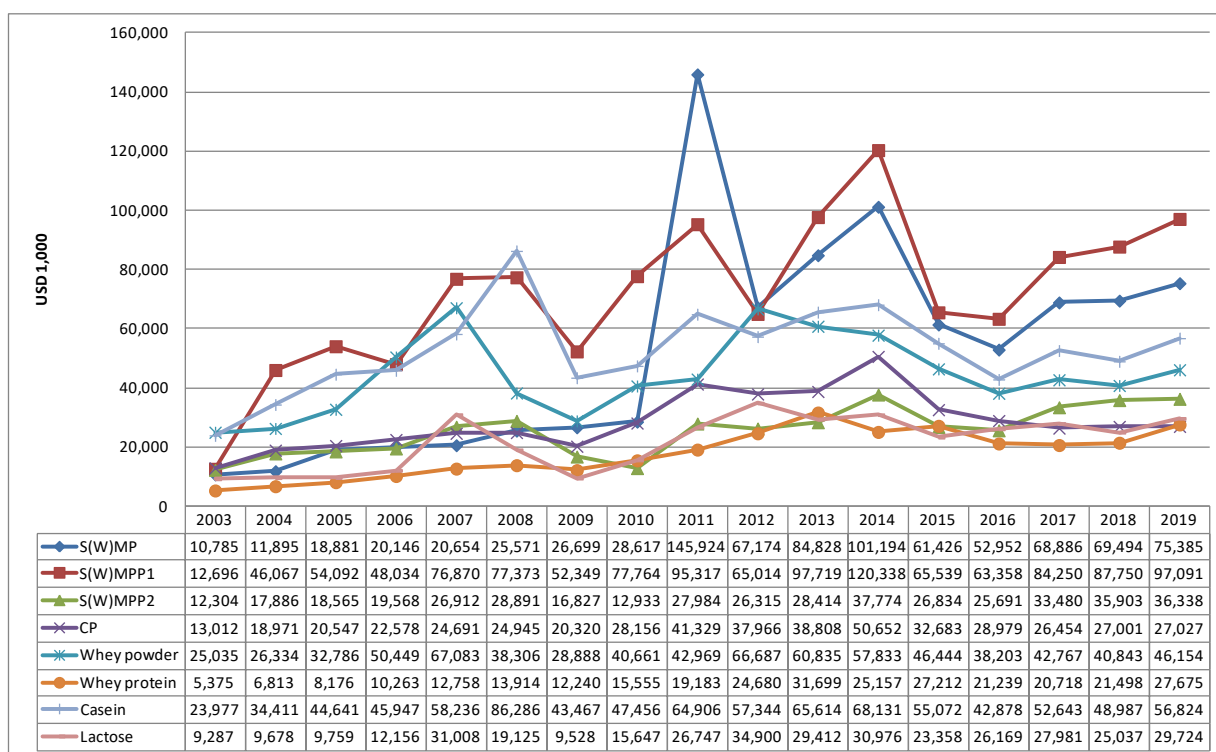
Fig. 2, Value share of milk powder imports into Korea in 2019 by country



4) Trend

During the period between 2011 and 2014 when FMD impacted on the local dairy sector, milk powder imports fluctuated. Since 2016, it has been stabilized and growing steadily.

Fig. 3, Import value of milk powder products into Korea per year



3. Specific information by milk powder commodities

1) S(/W)MP (Skim/whole milk powder)

Since the basic tariff for S(/W)MP is very high (176%), S(/W)MP should be imported through WTO or FTA quota system. FTAs that Korea has signed contribute in the increase of import quota. Customs duties for S(/W)MP can also be exempted on the condition that the imported S(/W)MP will be used totally for food products for export from Korea.

The total import in 2019 was USD 75 million. The US (25%⁷), France (22%) and New Zealand (17%) led the market.

2) S(/W)MPP (Skim/Whole Milk Powder Preparation)

In the past, Dutch milk power exporters came up with an idea to blend S(/W)MP and different kinds of powder products to lower the customs duties in the Korean market; the tariff of S(/W)MPP becomes 36% when it is blended with others (HS code 0404900000 or 1901902000).

⁷ Herein after all “value share” for country shares

S(/W)MPP1 with HS code 0404.90.0000 is generally composed of 85 ~ 88 % of S(/W)MP and 12 ~ 14 % of other milk powder products such as Whey Powder and Whey Protein. The most well-known formula of S(/W)MPP1 is 85 % of SMP and 15 % of Demineralized⁸ Whey Permeate⁹. This is largely used by milk and yoghurt makers. Another popular formula, especially to ice cream makers, is 88 % of SMP, 6 % of Whey Protein and 6 % of Demineralized Whey Powder/Permeate. S(/W)MPP2 with HS code 1901902000 is generally composed of 72 ~ 85 % of S(/W)MP and 15 ~ 28 % of other powder products such as sucrose, malto-dextrin, fiber and coconut oil. Most of them are used for ice cream.

If milk powder is blended with other powder products, the quality generally becomes lower as extra heating or treatment in the course of blending puts a negative effect on the quality. However, the price benefit from low custom duties is enormous. Korean dairy sector welcomes this compound milk powder that can contribute to the reduction in costs for their dairy products.

The total imports of S(/W)MP1 and S(/W)MP2 in 2019 were USD 97 million and USD 36 million respectively. The Netherlands was the largest exporter of S(/W)MPP, accounting for 64% of the total imports. Only for S(/W)MPP1, the share was more than 87%. Since the Netherlands has better blending facilities for milk powder production compared to those of competitors, the position of the Netherlands in the Korean market will continue to be firm.

3) CP (Cocoa Preparation)

CP is generally composed of 85 % of skim milk powder and 15 % of cocoa mass/powder. Since only 8 % of tariff is imposed on CP, even though it contains a high percentage of SMP in addition to cocoa mass/powder, Korean makers of chocolate, chocolate ice cream and chocolate milk have used CP instead of pure cocoa mass or cocoa powder. The tariff has completely been eliminated since 1 July 2016.

⁸ Usually 40% demineralized.

⁹ A sort of Whey Powder; when protein is removed from Whey Powder, it is called Whey Permeate.

There are two kinds of CPs imported into Korea: HS code 1806209010 (SMP + cocoa mass) and 1806909010 (SMP + Cocoa powder). Since 2011, HS code 1806909010 products have not been imported into Korea because Korean consumers have increasingly preferred high quality chocolate products made from cocoa mass (HS code 1806209010). Cocoa mass is known as a higher value ingredient.

The total import in 2019 was USD 27 million. The Netherlands was the largest exporter of CP, accounting for 35% of the imports, followed by Singapore (27%).

4) Whey Powder

The basic tariff of S(/W)MP is high (49.5%). Therefore, most of whey powder is imported into Korea through WTO or FTA quota system. Regular whey powder is mainly used for flavored milk or beverage, while Demineralized Whey Powder (DWP) is used for infant formula. DWP accounts for around 30% of the total whey powder imports in volume. Whey Protein Concentrate (WPC) containing less than 80% whey protein (HS code 0404102131 or 0404102139) is also classified as Whey Powder in accordance with the HS classification.

There is only one local producer of Whey Powder, producing around 2,000~3,000 ton per year. This can satisfy only 5~7% of the domestic demand. The rest is covered by imported Whey Powder. The total import in 2019 was USD 46 million. The US was the largest exporter, accounting for 31% of the total imports. The Netherlands was the 2nd largest exporter (11%) of Whey Powder.

5) Whey Protein

WPC containing minimum 80% of whey protein is classified as Milk Albumin (HS code 3502200000) of which tariff rate is 8%. Since the tariff has completely been eliminated since 1 July 2016, Korean importers prefer to import WPC as Milk Albumin (HS code 3502200000) rather than WPC classified as Whey Powder (HS code 0404102131 and 0404102139). Regular WPC is mainly used for infant formula, and hydrolyzed/modified WPC is used for yoghurt as a gelling agent.

The import in 2019 was USD 28 million. The US was the largest exporter of Whey Protein, accounting for 58% of the total import. Canada was one of the largest

exporters of Whey Protein in 2014 (31%) but is no longer exporting Whey Protein into Korea.

6) Casein

The tariff rate of Casein and Caseinate is 8%. Casein or Caseinate is mainly used for artificial milk powder or coffee creamer. The tariff has completely been eliminated since 1 July 2016.

The import in 2019 was USD 57 million. New Zealand was the largest exporter of Casein, accounting for 35% of the total import, followed by Germany (18%) and the Netherlands (11%).

7) Lactose

Due to the high tariff rate of lactose (49.5%), lactose had to be imported into Korea within inquota quantity of WTO. This quota, however, has been no longer needed since 1 July 2016 because the tariff was completely lifted under the EU-Korea FTA. Lactose is largely imported for medicine, feed and infant formula.

Korea doesn't produce any lactose locally. All of lactose demanded in the domestic market should be imported; the total import in 2019 was USD 30 million. Australia was the largest exporter of lactose in 2014 (54%), but the position was taken over by the US (56%), Germany(21%) and the Netherlands (17%) in 2019.

4. Conclusion

- Overall, milk powder imports into Korea are expected to grow as the local raw milk price stays high.
- The position of the Netherlands for S(/W)MPP and CP in the Korean market is firm for its high quality chain and blending facilities.
- Whey Powder, Whey Protein, Casein and Lactose could be a new market for Dutch exporters because customs duties for those products were lifted as of 1 July 2016 under the EU-Korea FTA.