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# **Report Name:** Vegetable Oil Market Overview

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**Report Highlights:**

This report analyzes all vegetable oil markets in Korea, whether for food or industrial use, and covers oils derived from soybean, palm, palm kernel, olive, rapeseed/canola, grapeseed, sunflower seed, corn, coconut, sesame, perilla seed (a leafy plant from the mint family), and rice bran. Supply of vegetable oil in Korea is mainly imported, and the top three oils – palm oil, soybean oil, and rapeseed (canola) oil – are substitutes for each other, resulting in varying market share of each oil depending on global market price fluctuations. Sesame and perilla seed oil consumption remains almost constant from year to year, as these oils have a distinct consumer market for flavoring traditional Korean dishes. The share of biodiesel in the total vegetable oil market stands at around 20 percent, but it is expected to increase gradually in line with the Korean government's plans to expand the biodiesel blending mandate.

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## SECTION 1: Vegetable Oil Market Overview

Korea is a mountainous country where arable land accounts for less than 30 percent of the country's land area. With two thirds of the country occupied by mountains and hills, limited land resources led farmers to favor vegetable and rice production over oilseeds for crushing. Traditional Korean cooking uses only small amounts of vegetable oil mostly for flavoring rather than for frying.

For this reason, Korea heavily relies on imports for overall vegetable oil supplies. Additionally, there are only two local soybean crushers with a limited crushing capacity of 1 million metric tons (MMT) annually. In addition to soybean, other oilseeds that Korea crushes domestically include small amounts of corn oil and rice bran oil, along with traditionally consumed specialty oils (sesame seed and perilla seed oil), which are mostly used for flavoring. Under this scheme, the general import tariffs of vegetable oils (whether crude or refined) are low, ranging from 2-8 percent, except traditionally consumed specialty oils. Moreover, Korea has diverse free trade agreements (FTAs) with the main vegetable oil suppliers, making the applicable import tariffs for most oils zero. These FTA tariffs generally apply to both crude and refined oils, except that under the Korea-ASEAN FTA, the tariff rates for soybean oil differ between crude (zero percent) and refined (5 percent) to promote local refineries of crude oils over importing shelf-ready final products.

Within Korea's total annual vegetable oil consumption of 1.5-1.6 MMT, palm, soybean and rapeseed oils account for 86 percent, with consumption of other oils fluctuating annually depending on the global market price. As of marketing year (MY) 2022/23 (October 1-September 30), 41 percent of the total Korean vegetable oil supply was palm oil, 36 percent was soybean oil, and 9 percent was rapeseed oil. Palm oil is the cheapest available oil, and it is estimated that about half of palm oil is used for food, and another half for biofuels.

Whereas Korean households predominantly use soybean oil and rapeseed oil in home cooking, palm oil for food use feeds mainly into food manufacturing, especially noodles and snacks. Since the early 2000s, with more westernized eating habits and health-conscious consumer trends, cooking oil consumption patterns have begun to diversify to include oils such as olive, grapeseed, and sunflower seed oils. Rapeseed oil use has rapidly risen to the same level as soybean oil in households.

In biofuel manufacturing, some rapeseed and other oils substitute for palm oil during winter months, as palm oil can only be used from March to September in Korea due to its high freezing point. The average monthly low temperature in Korea in January, the coldest month of the year, drops to minus 7 degrees Celsius according to the Korean Meteorological Administration. As the Korean government announced its target to increase the biodiesel blending mandate to 8 percent by 2030 from its current 4 percent, demand for palm oil is projected to increase further due to its price competitiveness.

## SECTION 2: Vegetable Oil Market Supply

Most vegetable oil supplies in Korea are derived from imports to some degree, as there is limited oilseed production along with limited crushing capacity. Most Korean manufacturers are involved in parts of refining process, or import oils that have already been chemically refined, rather than crushing oilseeds or performing the whole refining process (from neutralization, bleaching, through deodorization). The exceptions are soybean and rapeseed oil, which are imported as crude degummed oil. As of MY 2022/23, only about 412,000 MT of vegetable oils were imported as crude, with the remaining 843,000 MT imported as refined.

Korea's total vegetable oil supply, including domestic production and imports, is summarized for the major types of vegetable oil in Table 1. Additional types of vegetable oil are present in the Korean market, but their volumes are not large enough to be analyzed.

### Domestic Production

Domestic production of refined oils can be subdivided by two categories: oil derived from oilseeds crushing, and oil from refining of imported crude or partially refined oil.

As mentioned above, total domestic vegetable oil production in Korea is approximately 1.5 MMT annually. Of the total production, 0.3 MMT is from oilseed crushing and 1.2 MMT is from oil refining. The majority of oilseed supplies by crushing is from soybean and corn, followed by sesame and perilla seed. Imported refined oils are re-deodorized and packaged again at domestic refineries and are therefore marketed and labelled as domestically produced products derived from imported ingredients.

There are some exceptions of imported oils (primarily olive oil) that are directly imported as ready-to-sell to the commercial market and marketed as imported oil in small-sized bottles, but this is a very limited portion of the total vegetable oil supply in Korea.

Of the major oils – soybean oil, rapeseed oil, and palm oil – only soybean is crushed domestically, whereas rapeseed oil is imported primarily as crude oil and palm oil imported as refined oil. There are only two soybean crushers in Korea: CJ CheilJedang and Sajo Daerim Corporation, with a comparative crushing ratio of 65:35 percent. The CJ facility, installed in 2012, is also capable of crushing rapeseed. In total Korea has the capacity to produce 0.21 MMT of soybean/rapeseed oil per year. For more information, please refer to the Oilseeds and Products Annual GAIN Report.

Traditional Oil – Sesame Seed Oil, Perilla Seed Oil

For sesame seed oil, there are no official statistics, as small-scale production accounts for a relatively large share of the industry, and sales through those channels are hard to track. According to the 2022 Sesame and Perilla Seed Oil Market Report published by the Korea Agro-Fisheries and Food Trade Corporation (aT) and the Ministry of Agriculture, Food and Rural Affairs (MAFRA), out of the approximately 70,000 MT of annual sesame seed imports in MY 2022/23 (five-year-average was 81,000 MT), about 25 percent was used for food, and the

remaining 75 percent was used for sesame oil production. This would be equivalent to about 30,000 MT of sesame oil production at an oil yield of approximately 50 percent.

**Table 1**
**Total Supply and Main Country of Origin on Each Vegetable Oil**

| **Supply Overview of Selected Vegetable Oil** (1,000 Metric Tons, as of MY 2022/23) | | | | | | |
|---|---|---|---|---|---|---|
| **Type** | **Total** | **Imports** | | | **Crushing** | **Country of Origin (Percent of total by Quantities)[6/]** |
| | | **Total** | **Crude[5/]** | **Refined** | **Total** | |
| Soybean Oil | 548 | 353 | 277 | 76 | 195 | **Seed**: USA(51%), Brazil(32%) **Oil**: Argentina(57%), Vietnam(13%), Brazil(11%) |
| Palm Oil [1/] | 637 | 637 | - | 637 | - | Malaysia(55%), Indonesia(45%) |
| Rapeseed Oil | 136 | 136 | 118 | 18 | - | Canada(63%) [4/], Australia(15%), UAE(13%) |
| Coconut Oil [2/] | 48 | 48 | - | 48 | - | Indonesia(57%), Philippines(41%) |
| Corn Oil | 46 | 2 | - | 2 | 44 | **Seed**: Argentina(29%), Brazil(27%), Ukraine(17%), USA(7%) **Oil**: Brazil(75%), Spain(19%) |
| Sunflower-seed Oil | 28 | 28 | - | 28 | - | Spain(27%), Ukraine(23%), Hungary(16%) |
| Olive Oil | 17 | 17 | 15 | 2 | - | Spain(73%), Italy(19%) |
| Rice bran Oil | 11 | 11 | - | 11 | - | Thailand(97%) |
| Grapeseed Oil [3/] | 8 | 8 | - | 8 | - | Spain(60%), Italy(33%) |
| Palm Kernel Oil | 8 | 8 | - | 8 | - | Malaysia(57%), Indonesia(42%) |
| Sesame Seed Oil | 32 | 1 | 1 | - | 31 | **Seed**: China(32%), India(31%), Nigeria(17%), Korea(14%) **Oil**: China(48%), Vietnam(35%), Mexico(16%) |
| Perilla Seed Oil | 13 | 1 | 1 | - | 12 | **Seed**: Korea(74%), China(26%) **Oil**: China(96%) |
| Other Oil (Excl. Grapeseed Oil) | 5 | 5 | - | 5 | - | - |
| **Total** | **1,536** | **1,255** | **412** | **843** | **281** | **-** |

Sources: Statistics Korea (KOSTAT); Korea Soybean Processing Association (KSPA); Ministry of Food and Drug Safety (MFDS). Note: Total supply means sum of imports and domestic production.
1/ About half of Palm oil goes for biofuel, and all food usage is for manufacturing.
2/ Coconut oil is mainly for industrial use (cosmetics) with limited demand from B2B food manufacturing in snacks. Total demand for food use (food manufacturers and households) is estimated at less than 10,000 MT annually.
3/ Grapeseed oil is the sum of imports from Spain, Italy, and France under HS code 1515.90.9090 (other oils).
4/ Canada used to be the primary supplier of rapeseed oil, but it shifted to European countries and Australia since October 2023 due to the lack of availability from Canada, as exports shifted to the United States.
5/ Includes crude oil, extra virgin oil (for olive oil), and pressed oil without refining (sesame and perilla seed oil).
6/ Country of origin of imported seeds applies for all purposes, not only for crushing.

**Table 2**
**Local Crushing Capacity**

| Soybean Crushing Capacity (As of February 2023) | | |
|---|---|---|
| Soybean Crusher | Capacity (MT/day) | Location |
| CJ CheilJedang Corporation | 2,100[1/] | Incheon |
| Sajo Daerim Corporation | 1,100 | Incheon |
| **Total** | **3,200** | |

Source: Korean Soybean Crushing Industry
Note: Day=24 hours processing basis for 330 days
1/ of this capacity, 700 MT is convertible to crush for either rapeseed or soybeans depending on crushing margins.

**Table 3**
**Main Vegetable Oil Players in Korea**

| Company | Market Share (Percent) | Main Features and Products | Business Area |
|---|---|---|---|
| CJ CheilJedang | 25 | Established in 1953 as the first raw sugar refinery in Korea, CJ started the edible oil business in 1979 with the 'Beksul' brand. It has expanded its business into food service, logistics, and entertainment and has grown to become one of the largest food companies in Korea. **Products:** Soybean Oil, Canola Oil, Corn Oil, Olive Oil, Grapeseed Oil, Rice Bran Oil, Sunflower seed Oil, Mixed Oil, Sesame Seed Oil, Perilla Seed Oil | Crushing and Refining |
| Lotte Foods | 18 | Established in 1958 as a food company of Lotte Group, Lotte Foods started its edible oil business in 1958 and became the first margarine producer in Korea in 1960. **Products:** Soybean Oil, Corn Oil, Olive oil, Grapeseed Oil, Canola Oil, Palm Oil, Margarine, Shortening | Refining |
| Sajo Daerim | 11 | Well known food manufacturing company, Sajo Daerim is a soybean crusher and produces various types of food in Korea under its signature brand name 'Haepyo'. **Products:** Soybean Oil, Canola Oil, Olive Oil, Grapeseed Oil, Corn Oil, Sesame Seed Oil | Crushing and Refining |
| Samyang | 5 | Well known manufacturer of sugar with the brand name of 'Q one', Samyang also engages in various types of food manufacturing including wheat milling. **Products:** Soybean Oil, Canola Oil, Corn Oil, Margarine, Shortening | Refining |
| Ottogi | 7.3 [1/] | Established in 1969, Ottogi is the biggest producer of mayonnaise in Korea and holds the largest sesame oil market share in Korea. **Products:** Soybean Oil, Canola Oil, Olive Oil, Grapeseed Oil, Sunflower seed Oil, Corn Oil, Sesame Seed Oil, Perilla Seed Oil | Crushing (sesame and perilla seed) and Refining |

Source: Website of each company; Korea Agro-Fisheries and Food Trade Corporation (aT)
Note: The market share is based on total vegetable oil sales in Korea as of 2020. Exports are excluded for all companies. The composition of each company's products and market share may be changed from year to year.
1/ The market share of Ottogi is sum of its subsidiaries.

The Korean government set a high import tariff on sesame seeds and oil to protect the domestic industry, which produces only 10,000 MT of sesame seeds annually. To fill remaining demand, Korea Agro-Fisheries and Food Trade Corporation (aT) is the only entity authorized to import sesame seeds and sesame oil under the WTO tariff rate quota (TRQ) scheme, which allows up to 58,000 MT of sesame seeds and 668 MT of sesame oil to enter at a lower rate of 40 percent (as of 2023). Sesame seeds imported under this scheme are allocated and sold to sesame oil manufacturers to fulfill about half of each company's annual demand, and the remaining 40,000 MT are distributed domestically through weekly auction. Imports by local importers through import licenses (13,000 MT as of 2023) are also possible for companies that have won an import license tender from aT.

Due to the high tariff structure on imported sesame seed, since the mid-2010s, major manufacturers have started to produce sesame oil using imported roasted sesame seed powder from Southeast Asian countries, which benefits from a zero percent tariff under the Korea-ASEAN FTA. According to the official Korea import statistics along with industry experts, it is estimated approximately 30,000 MT of roasted sesame seed powder is imported and used for manufacturing sesame oil. The general duty of roasted sesame seed powder is 45 percent, belonging to HS Code 2008.19.9000 with other roasted grains combined.

The perilla oil market is also difficult to estimate in detail, but according to yearly food balance statistics from the Korea Rural Economic Institute (KREI), it is estimated that about 13,000 MT of perilla seed oil is available within the country. Imports of perilla seed are open to all with a base import rate of 40 percent or 410 KRW/kg ($0.32/kg, whichever is higher) and 36 percent or 369 KRW/kg ($0.28/kg, whichever is higher) from China, the foremost origin. Unlike other major vegetable oils, not only food conglomerates in Korea but also many small-scale manufacturers are involved in the sesame and perilla seed oil business.

**Table 4**
**Import Tariff Scheme on Sesame Seed and Oil by Import Type**

| **Sesame seed and oil Import Structure**<br>(Percent, Metric Tons, as of 2023) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Product** | **HS code** | **Tariff Rate** | | **Total TRQ Volume** | | | |
| | | **Applicable** | **WTO TRQ** | | **by aT** | **by Traders with Import License** | **by End User [1/]** |
| Sesame Seed | 1207.40.0000 | 630% or 6,660 KRW/kg [2/] | 40% | **71,000** | 58,000 | 13,000 | - |
| Sesame Seed Oil | 1515.50.0000 | 630% or 12,060 KRW/kg [3/] | 40% | **668** | - | 653 | 15 |

Source: 2023 import plan announced from the Korea Agro-Fisheries and Food Trade Corporation (aT)
Note: Imports via traders and end users needs authorization and allocation from aT by official tender
1/ For medical use only
2/ Equivalent to $5.1/kg, whichever is higher
3/ Equivalent to $9.3/kg, whichever is higher

**Vegetable Oil Imports**

Korea relies on imports for the majority of its oil supply (82 percent as of MY 2022/23), most of which is imported as refined oil. Crude type soybean and rapeseed oils make up the bulk of total crude oil supplies, with some amount of virgin and extra virgin olive oil. Korea imports about 350,000 - 400,000 MT of crude soybean oil every year, as domestic demand exceeds the total crushing capacity and crude soybean oil can be refined in existing refining facilities. The primary refined oil import is palm oil for both food and biofuel usage. Since most vegetable oils can be considered substitutes to some extent, the annual import volume varies depending on customer preferences and on price competitiveness.

**Figure 1**

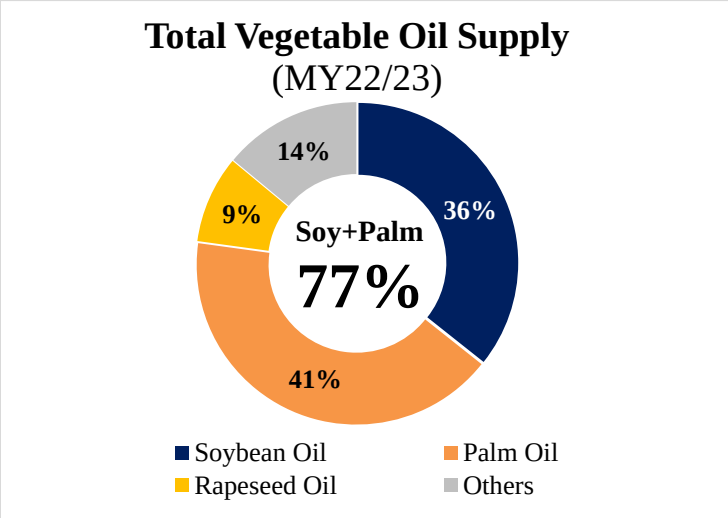
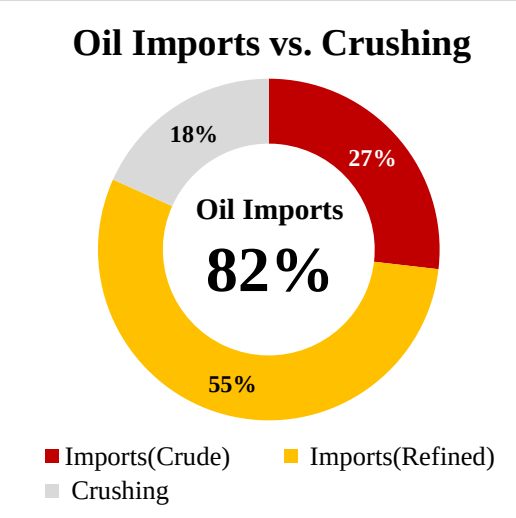



**Figure 2**




Source: Imports and domestic production (for soybean, corn, sesame seed and perilla seed oil only)
Note: Total oil includes only 12 kinds of oils (incl. Soybean+ palm+ rapeseed+ corn+ coconut+ olive+ grapeseed+ sunflower seed + rice bran oil+ palm kernel + sesame seed + perilla seed) and considers supplies are equal to demands. It also does not differentiate the usage whether for food or industrial use.

In MY 2022/23, global supply chain issues reduced export availability from major edible oil producers, pushing up import prices and reducing demand for other edible oils priced above palm oil. Korean buyers shifted the origin of rapeseed oil imports to Australia and other European countries due to decreased exports from Canada, their traditional primary supplier. However, they were unable to find alternative suppliers with competitive prices for olive and sunflower seed oil. Demand for palm oil was up due to the relative price competitiveness over soybean oil and increased demand for both food and industrial usage, which partially took over a portion of soybean oil demand in MY 22/23. Palm oil is one of the foremost ingredients for instant noodles, which are growing in popularity along with the global K-culture boom driven by K-pop, K-dramas and movies. Media outlets, citing Korea Customs, reported that Korean instant noodle exports reached a record high of $950 million in calendar year (CY) 2023.

Recent Changes in the Soybean Oil Market

There were two significant changes from MY 2020/21 through MY 2022/23 in the soybean oil supply situation in Korea.

First, the U.S. market share of imported soybean oil dramatically dropped due to the increased domestic demand for soybean oil as a biofuel feedstock in the United States. American soybean oil used to be recognized for its superior quality with lower refining costs, along with import tariff benefits: zero percent under U.S.-Korea FTA (KORUS) compared to the general import of 5 percent. Now, however, Korean buyers have sought alternative suppliers due to the lack of availability from the United States.

Second, temporary tariff exemptions by the Korean government for both crude and refined soybean oils starting in 2022 caused the importers to change the origin of soybean oil from South America to Asia. As a result, local companies increased refined soybean oil imports from East and Southeast Asia due to logistical convenience and price competitiveness over traditional origins. In June 2022, MAFRA announced that it would temporarily exempt the import tariff of soybean oil to curb higher-than-expected domestic inflation. The zero tariff was extended through the end of 2023 and returned to the general tariff scheme as of January 1, 2024.

**Table 5**
**Vegetable Oil Imports to Korea Varied Upon the Price Fluctuations**

| **Imports of Selected Oils** (1,000 Metric Tons, U.S. Dollar per Metric Ton) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Oils** | **Quantity** | | | | | **Unit Price** | | | | |
| | **MY 19/20** | **MY 20/21** | **MY 21/22** | **MY 22/23** | Change (YoY) | **MY 19/20** | **MY 20/21** | **MY 21/22** | **MY 22/23** | Change (YoY) |
| Palm Oil | 588 | 591 | 590 | 637 | 8% | 655 | 1,007 | 1,429 | 954 | -33% |
| Soybean Oil | 402 | 407 | 392 | 353 | -10% | 782 | 1,171 | 1,548 | 1,465 | -5% |
| Rapeseed Oil | 165 | 161 | 129 | 136 | 5% | 797 | 1,266 | 1,699 | 1,572 | -7% |
| Olive oil | 19 | 24 | 29 | 17 | -40% | 3,850 | 4,484 | 4,867 | 6,320 | 30% |
| Sunflower-seed Oil | 35 | 44 | 42 | 28 | -34% | 1,243 | 1,449 | 2,105 | 2,386 | 13% |

Source: Korea Statistics (KOSTAT)

**Table 6**
**Soybean Oil Supply to Korea with Significant Changes in MY 2022/23**

| Soybean Oil Imports by Country and by Type (1,000 Metric Tons, Marketing Year) | | | |
|---|---|---|---|
| **Item** | **MY 2020/21** | **MY 2021/22** | **MY 2022/23** |
| **Total** | **407** | **392** | **353** |
| **By Country** | | | |
| United States | 276 | 111 | 0 |
| (Percent of total) | (68%) | (28%) | (0%) |
| Argentina | 56 | 175 | 202 |
| Brazil | 8 | 11 | 39 |
| From Asian Countries [1/] | 42 | 73 | 95 |
| (Percent of total) | (10%) | (19%) | (27%) |
| Others | 25 | 21 | 17 |
| **By Type** | | | |
| Crude Oil | 373 | 348 | 277 |
| Refined Oil | 34 | 44 | 76 |

Source: Korea Statistics (KOSTAT)
1/ Sum of Vietnam, Taiwan, China, and Thailand

Import Tariffs and Free Trade Agreements

The KORUS FTA went into effect on March 15, 2012, and resulted in a phase-out of the import duty on U.S. soybean oil from its base rate of 5.4 percent in 2012 to zero percent in 2021. The preferential KORUS tariff played a significant role in increasing the U.S. soybean oil market share to 32 percent in CY 2020 from 9 percent in CY 2011, with some fluctuations due to price competitiveness and supply availability by year. As detailed in the previous section, in the last four years, Korea's imports of U.S. soybean oil plummeted to zero due to the significant changes in the United States soybean oil supply.

The Korea-ASEAN FTA went into effect in June 2007, eliminating the palm oil duty from Malaysia and Indonesia. Zero tariff was also applied for crude soybean oil. Since the entry into force of the Korea-EU FTA in July 2011, import duties on major vegetable oils were also phased out within several years.

The Korea-Canada FTA entered into force in 2015, and imports of rapeseed oil became duty free in 2021 for crude oil and in 2017 for refined oil. Under the Korea-Australia FTA, in effect since 2014, the rapeseed oil import duty became zero in 2023 for crude oil and in 2018 for refined oil.

**Table 7**
**List of Applicable Tariff Rates for Selected Vegetable Oils**

| **Applied Tariffs for Vegetable Oils** (Calendar Year (CY), Percent) | | | |
|---|---|---|---|
| Commodity | H.S. Code | General Rate (CY 2024) | Preferential Rate from Primary Suppliers |
| Soybean Oil for Food, Crude | 1507.10.1000 | 5 | 0 (USA)<br>0 (ASEAN) |
| Soybean Oil for Biodiesel, Crude | 1507.10.2000 | 5 | 0 (USA)<br>0 (ASEAN)<br>0 (China) |
| Soybean Oil for Other, Crude | 1507.10.9000 | 5 | |
| Soybean Oil for Food, Refined | 1507.90.1010 | 5 | 0 (USA) |
| Soybean Oil for Biodiesel, Refined | 1507.90.1020 | 5 | 0 (USA)<br>0 (China) |
| Soybean Oil for Other, Refined | 1507.90.1090 | 5 | |
| Soybean Oil, Other | 1507.90.9000 | 5 | |
| Olive Oil | 1509.xx.xxxx | 5 | 0 (EU) |
| Palm Crude Oil | 1511.10.0000 | 3 | 0 (ASEAN) |
| Palm Oil | 1511.90.xxxx | 2 | 0 (ASEAN) |
| Sunflower Oil | 1512.1x.xxxx | 5 | 0 (EU) |
| Coconut Oil | 1513.1x.xxxx | 3 | 0 (ASEAN) |
| Palm Kernel Oil | 1513.21.xxxx<br>1513.29.1010<br>1513.29.9000 | 8 | 0 (ASEAN) |
| Rapeseed Oil, Crude | 1514.11/1514.91.xxxx | 5 | 0 (Canada), 0 (EU) *(for all)*, 0 (Australia) *(only for 1514.11)* |
| Rapeseed Oil, Refined | 1514.19/1514.99.xxxx | 5 | 0 (Canada), 0 (EU) *(for all)*, 0 (Australia) *(only for 1514.19)* |
| Corn Oil | 1515.2x.xxxx | 5 | |
| Sesame Oil | 1515.50.0000 | 40 (630) [1/] | |
| Perilla Seed Oil | 1515.90.1000 | 36 | |
| Rice Bran Oil | 1515.90.9010 | 5 | |
| Other Oils (incl. Grapeseed Oil) | 1515.90.9090 | 5 | 0 (USA)<br>0 (ASEAN)<br>0 (EU) |

Source: Korea Statistics (KOSTAT)
Note: The preferential tariffs are from the selected primary suppliers, and these do not cover all preferential/applicable tariffs that each product would be applied.
1/ 630% or 12,060 KRW/kg ($9.3/kg) whichever higher. The higher rate is prioritized over the general rate.

## SECTION 3: Vegetable Oil Market Demand

The main edible oil consumed in Korea is palm oil, followed by soybean oil and rapeseed oil. Approximately 80-90 percent of domestic vegetable oil consumption for food use is from business to business (B2B) sales (mainly in 18L cans), and the rest is for direct consumer use. As total consumption includes all food and industrial usage, consumption in households – represented by 500ml/900ml/1.8L packages – has a different composition. There is no usage of palm oil in households in Korea, and palm oil consumption is approximately evenly split between food use (for noodles and snacks) and biodiesel. Within B2B consumption, palm oil and soybean oil predominate in the food processing and hospitality sectors, whereas Korean households predominantly use soybean oil and rapeseed oil in home cooking, along with flavoring oils and increasing amounts of other premium oils.

In this report, demand is estimated from the total supply, as total demand is considered equal to total supply in Korea.

### Vegetable Oil Consumption Trends by Year

Traditionally, there are two different oil categories in the Korean market: oils for frying and traditional oils for flavoring. Oils such as soybean oil, palm oil, and rapeseed oil are used for frying, the major demand in Korea, while sesame and perilla seed oils are used for flavoring. Most households have both types of oil in their house, allowing these two end use categories to be distinguished as separate markets.

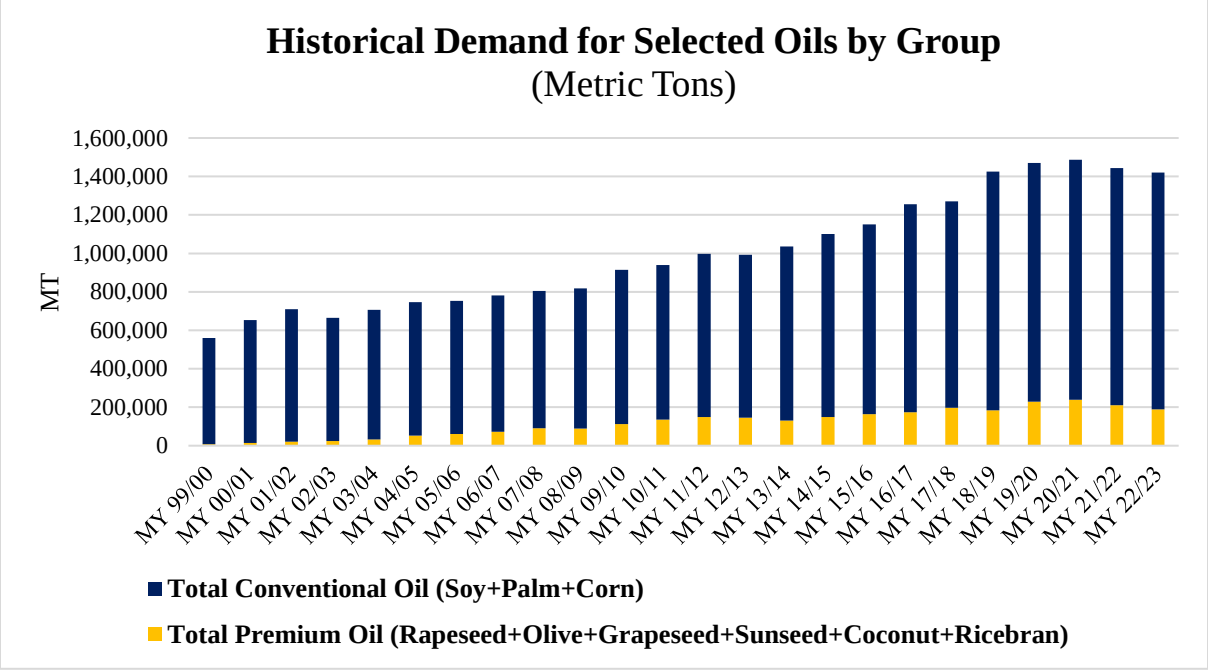
The major frying oils are classified into conventional oils and premium oils, as shown in Figure 3. Premium oil does not mean superior quality to conventional oil, rather it refers to marketing strategies by local companies as new types of oils have been introduced in the Korean market. As shown in Figure 4, the premium vegetable oil market composition fluctuates year by year from new customer demand and global supply chain issues.

Apart from this, the two traditional oils - sesame and perilla seed oil – are in steady demand from year to year, so there are relatively fewer factors affecting total consumption. Either sesame seed or perilla seed oil can be used for flavoring traditional Korean dishes such as *guk* (soups), *namul* (cooked greens), *bibimbap* (traditional mixed rice and vegetables), and sauces. Small amounts of perilla seed oil are used for pan frying or stir frying, especially for *jeon* (savory pancakes).

#### 1) (~2000) Early Development of Premium Oil Market

Until 2000, soybean and corn oil occupied the greatest market share for both home cooking and in restaurants, as these could be used for almost every type of cuisine and benefited from low prices. Then, in the early 2000s, consumption and purchasing habits shifted towards so-called ‘premium (or specialty) oils’ due to health awareness from educated customers, increased incomes, and demand for high-quality oils. As the edible oil market has diversified, consumer preferences have decreased for conventional soybean and corn oil.

**Figure 3**




Source: Korea Statistics (KOSTAT)

### 2) (2001~2005) Development of Premium Oil Market: Olive Oil

In Korea, olive oil has been regarded as a premium oil because of its high oleic acid and polyphenol content, as well as positive consumer perceptions of its extraction method (cold pressing). The main suppliers were Spain, followed by Italy. On the B2B side, BBQ Chicken, one of the nation's largest chicken franchises, has been one of the largest consumers of olive oil. Thanks to a patented refining process that increased the oil's flash point, BBQ Chicken has used olive oil to cook its signature deep-fried chicken since 2007, playing a major role in sustaining the market. Olive oil was used as a marketing tool with nutritional benefits to distinguish their chicken as healthier and more flavorful than those of their competitors. However, as the global market price of olive oil skyrocketed in recent years, BBQ Chicken decided to switch from olive oil to a blend of olive and sunflower seed oil starting in 2023.

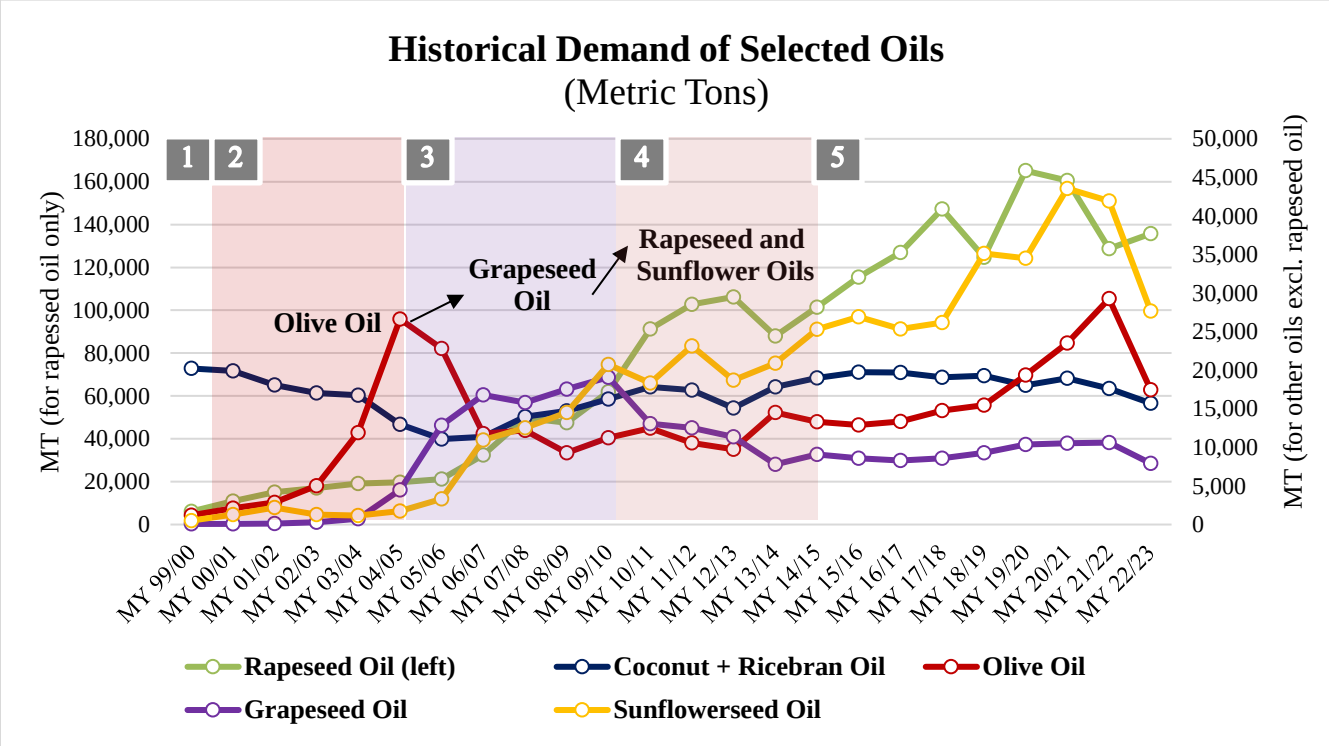
As olive oil had been marketed for its healthy image and nutritional value, including cholesterol-lowering benefits, many in Korea were surprised by the news in 2006 that the Ministry of Food and Drug Safety (MFDS) had detected benzopyrene above the maximum residue limit (MRL) of 2.0㎍/kg in several commercial products. The MRL violation caused a sharp turndown in demand for olive oil. The case closed with a product recall, but the issue caused the olive oil market to shrink dramatically for several years.

### 3) (2006-2010) Diversification of Premium Oil Market: Grapeseed Oil

Although the global market for edible grapeseed oil is relatively small, it has formed a large market in Korea due to its high smoke point, which allows it to be used in frying, coupled with

its clean taste and aroma. Grapeseed oil further appealed to health-conscious Korean consumers with its high content of linoleic acid, which was recognized as good for blood health. Demand for grapeseed oil started to decrease amid purity concerns in 2010, when MFDS and Korea Customs Service (KCS) investigated several products marketed as 100 percent pure grapeseed oil and detected some products that did not meet global requirements for fatty acid composition to be labeled as 'Grapeseed Oil.' However, MFDS finally closed the investigation, stating that it was difficult to prove scientifically whether other cooking oils had been present based on the fatty acid composition analysis. Sales plummeted from their peak in MY 2006/07, but domestic demand has remained at a certain level since the purity issues were resolved.

**Figure 4**




Source: Korea Statistics (KOSTAT)

### 4) (2011-2014) Emerging Canola (Rapeseed) and Sunflower Oils as a New Normal

Canola (rapeseed) oil emerged as a national cooking oil, as it could be widely used for a variety of cuisines thanks to its high smoke point and lower price relative to other oils that had been marketed as premium oils. CJ Cheiljedang, the biggest soybean crusher and a top food manufacturer in Korea, started canola seed crushing (about 60,000 MT from Canada) in 2013 to expand the market aggressively, but halted after one year due to difficulties in promoting and finding a market for domestically produced canola oil and canola meal above the target price. The main supplier of imported canola oil used to be Canada, which has maintained a market share of more than 84 percent since MY 2014/15. However, since Canada started exporting more than 87 percent of its canola oil to the United States in MY 2022/23, Korea has begun to diversify its origins to Australia and European countries. This diversification is expected to continue into the future.

Sunflower seed oil was preferred by customers due to its similar smoke point to rapeseed oil, along with the high content of unsaturated fats, which are known to be good for health. People who used to purchase grapeseed oil were likely shift into sunflower seed oil, as the main suppliers were also European countries, and sunflower oil was similarly marketed as a healthy oil. Sunflower seed oil accounts for the biggest portion of edible oils in consumption for food after rapeseed oil and soybean oil, but rapid price increases and supply disruption from the Black Sea region have dragged the market gradually down.

**5) (2015~) Diversification to Salad Oils, New Oils to keep up with Global Trends**

Previously, many households chose one type of oil and used it for all kinds of cuisines (stir-frying, frying, etc.), but since 2014, more westernized and educated consumers have begun to differentiate between uses. The health benefits of olive oil have been reemphasized, resulting in a rebound in sales for salads. Moreover, sunflower seed oil has emerged as one of the new premium oils for stir-frying, in addition to soybean and canola oils.

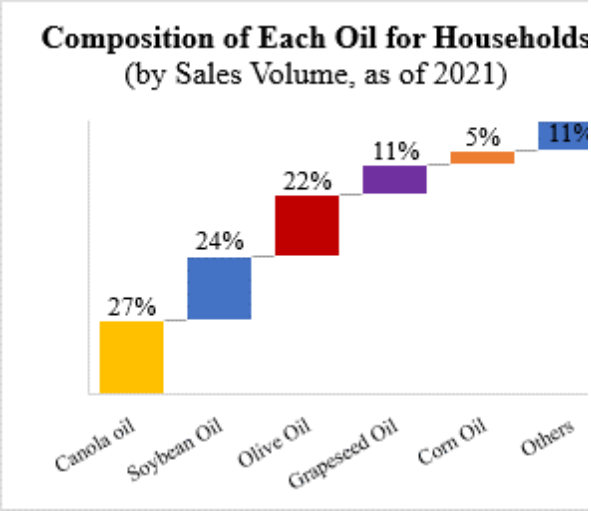
In recent years, various types of new products (including avocado oil) have been launched to meet diverse needs of consumers in line with global trends. Some edible oils are becoming available for flavoring, not just for substituting conventional oil uses such as frying and stir-frying. For example, truffle oil was recently introduced in Korea. There is also rising demand for organic oils despite the price gap with non-organic oils. While the organic market is still small in Korea, it plays a role in maintaining market share from certain U.S. suppliers thanks to the organic equivalence arrangement between Korea and the United States. For example, Korea imports about 500-1,000 MT of sunflower seed oil from the United States annually despite prices that are roughly twice as high as primary sunflower oil suppliers. While the exact quantity of certified organic sunflower oil exports cannot be confirmed, Korea's National Agricultural Products Quality Management Service (NAQS) reports that sunflower oil was one of Korea's top-ranked organic imports from the United States.

In addition to diversification in the types of oilseeds, the Korean vegetable oil market is also introducing diversified types of packaging. For example, spray-type oils and small packages (200ml or less) have been launched, aiming at single-person households.

<u>Household Consumption and Consumer Preferences</u>

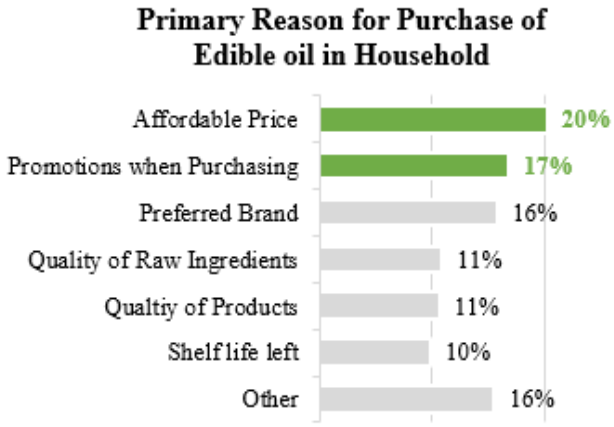
Rapeseed oil accounts for the largest share of household consumption, with 27 percent of the market, followed by soybean oil at 24 percent and olive oil at 22 percent (Figure 5). People tend to consider price as the most important factor when buying oils, resulting in mass produced soybean and canola oils holding the greatest market share. According to the 2022 Processed Food Segment Report by aT, the main package of edible oil for households is 900ml (60.6 percent of total), followed by 500ml (23.4 percent) and 1.8L (15.0 percent). Also, the survey highlighted that when purchasing oils, people consider features such as nutritional value, universal usage and price competitiveness for soybean and canola oil.

**Figure 5**



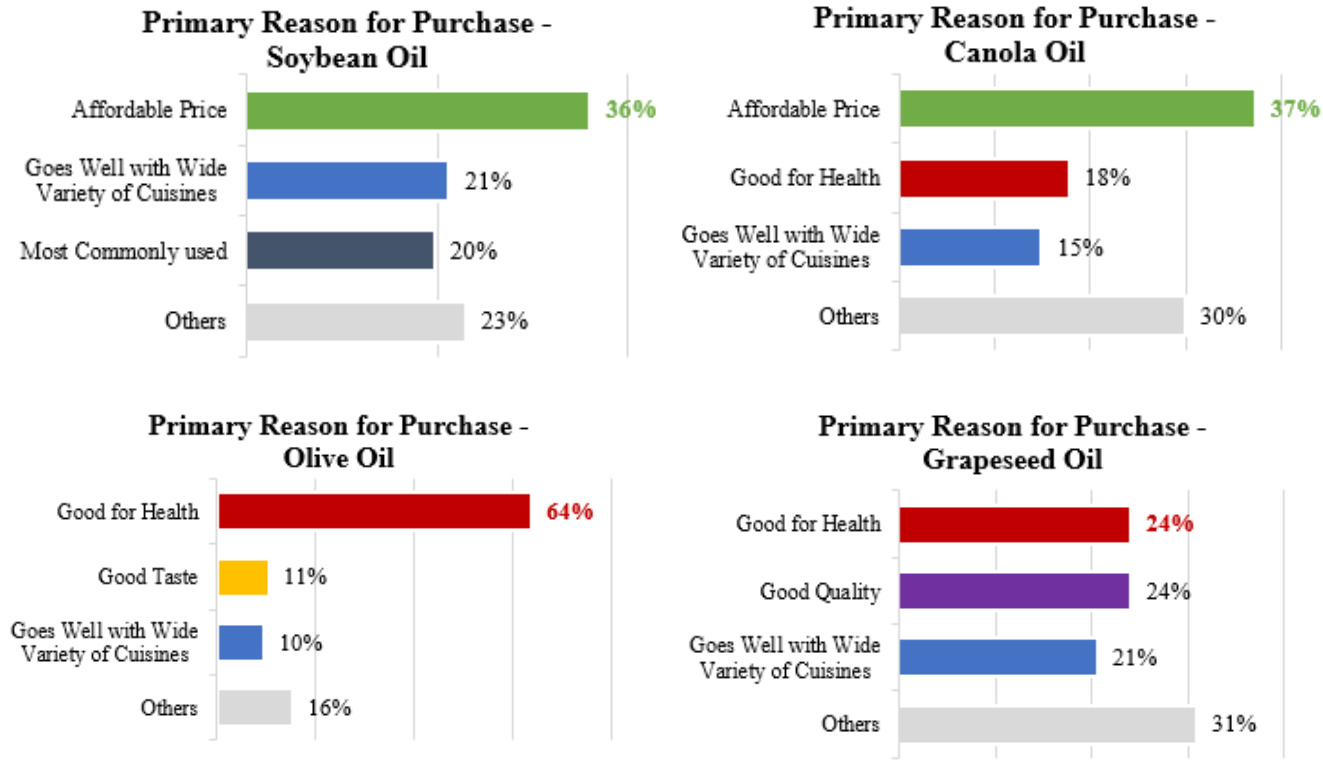

Source: aT FIS (aT Food Information Statistics System)

**Figure 6**




Source: Processed Food Segment Report by Korea Agro-Fisheries and Food Trade Corporation (aT), 2022

**Figure 7**




Source: Processed Food Segment Report by Korea Agro-Fisheries and Food Trade Corporation (aT), 2022

Oil Consumption for Biofuels

Korea consumes an estimated 22 MMT of petroleum-based fuels annually. Korea's mandated percentage of biofuel content in petroleum-based diesel will rise moderately over the next few years, from 3.5 percent last year to 4.0 percent in 2024. For more details about the biofuel policies and estimates of increasing usage of feedstocks, please refer to FAS/Seoul's Oilseeds and Products Annual GAIN reports.

**Table 8**
**Types of feedstocks for biodiesel in Korea**

| **Biodiesel Feedstock by Type and by Year** (Thousands of Metric Tons, Calendar Year) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **By Type** | | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** |
| **Domestic Supplies** | Used Cooking oil | 151 | 163 | 161 | 175 | 174 | 172 |
| | Animal Fat | 21 | 17 | 16 | 9 | 4 | 46 |
| | Others 2/ | 3 | 1 | 1 | - | 0 | 27 |
| | **Sub Total** | 175 | 181 | 178 | 184 | 178 | 244 |
| **Imports** | Soybean Oil | 8 | 5 | 1 | 16 | 48 | 14 |
| | Palm Byproducts 1/ | 242 | 250 | 337 | 337 | 333 | 398 |
| | Palm Oil (RBD) | 44 | 159 | 97 | 151 | 143 | 141 |
| | Used Cooking oil | 14 | 11 | 5 | 65 | 133 | 59 |
| | Others 2/ | 16 | 8 | 25 | 16 | 38 | 18 |
| | **Sub Total** | 324 | 433 | 465 | 585 | 695 | 629 |
| **Total** | | **499** | **614** | **643** | **769** | **873** | **873** |
| Portion (Percent) | Palm-related products | 57 | 67 | 67 | 63 | 55 | 62 |
| | UCO | 33 | 28 | 26 | 31 | 35 | 26 |
| Mandate (Percent) | | 2.5 | 3.0 | 3.0 | 3.0 | 3.5 | 3.5 |

Source: Korea Bio-energy Association
Note: The Ministry of Trade, Industry and Energy (MOTIE) plans to increase the blending rate to 8 percent by 2030.
1/ All palm-related products except RBD Palm Oil, including PFAD (Palm Fatty Acids Distillate), Palm Acid Oil, Palm Kernel Oil, Palm Stearin. PFAD is the primary source of byproducts with annual imports of 300,000 MT.
2/ Includes fish oil and dark oil for domestically supplied oil, rapeseed/coconut/cottonseed oil and tallow for imported oil.

According to the Korea Bio-energy Association (KBEA), the main feedstocks of biodiesel are refined, bleached, and deodorized (RBD) palm oil and palm byproducts totaling about 55-65 percent, followed by used cooking oil (UCO) with 25-35 percent. While Korea has some domestic supply of UCO, the amount is limited because traditional Korean cuisine has relatively low amounts of frying oil, favoring steaming and other cooking methods. With increasing use of UCO as a biofuel feedstock, Korea has steadily increased UCO imports under HS code 1518.00.9090. Japan, China, and Taiwan are the top three suppliers of UCO to Korea, totaling 70,000 to 100,000 MT annually, with 80 percent of market. According to KBEA, the current refining capacity of biodiesel in Korea is estimated at 1.17 MMT. In September 2023, news outlets reported that Ulsan, one of the major port cities in Korea, signed a memorandum of understanding (MOU) with the local tank terminal to establish a new biodiesel plant with 90,000 MT of refining capacity. In line with the government's policy to increase the biofuel blending mandate, Korea is expected to continue increasing its refining capacity in the next several years.

**Attachments:**

No Attachments.