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# Japan

# **Oilseeds and Products Annual**

# 2016 Japan Oilseeds and Products Situation and Outlook

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#### **Report Highlights:**

Despite a gradual annual decline in Japanese demand for oil, improved crushing margins in marketing year (MY) 2015/16 have made domestically produced soybean meal more competitive, increasing demand for soybean imports. Post estimates imports will reach 3.15 million metric tons (MMT). As the Japanese industry is expected to take advantage of low international soybean prices, Post forecasts that demand for soybean imports will continue at the same level in MY 2016/17. The larger soybean crush is expected to result in a slight decrease in rapeseed imports, and an adjustment to blended oil ratios to utilize the increased volumes of soybean oil. Japan is expected to produce 1.825 MMT of soybean meal in MY 2015/16 and MY 2016/17, and imports of soybean meal are expected to decrease two percent to 1.625 MMT as domestic meal competes with imports from China.

Key words: JA6006, soybeans, soybean oil, soybean meal, rapeseed, rapeseed oil, rapeseed meal, palm kernel meal, palm kernel shell, fish meal, palm oil, sunflowerseed oil.

# **Executive Summary:**

Although Japan's long-term consumption of soybeans is expected to decrease due to a shrinking and aging population, the short term per-capita consumption outlook is fairly stable. All domestic soybeans are used for food and account for roughly a quarter of total soybean consumption. Japan's domestic soybean production is driven by a policy to prevent the oversupply of rice. Soybean planted area and production in MY 2016/17 are forecast to remain at 140,000 hectares (HA) and 240,000 metric ton (MT) as soybeans continue to offer better profit margins compared to other crops.

Despite a very gradual annual decline in Japanese demand for oil, the price competitiveness of domestic soybean meal vis-à-vis imported Chinese soybean meal is expect to result in increased soybean crush. Post forecasts that the 12 percent increase in soybean crush in MY 2015/16 will hold steady in MY 2016/17 at 2.4 MMT. Japan is expected to produce 1.825 MMT of soybean meal in both MY 2015/16 and MY 2016/17, and imports of soybean meal are expected to decrease two percent to 1.625 MMT. With increasing domestic crush, soybean imports for MY 2015/16 and MY 2016/17 are expected to remain strong at 3.15 MMT as crushers take advantage of low international soybean prices and profit from soybean meal production.

The larger soybean crush is expected to result in a slight decrease in rapeseed imports, and an adjustment to blended oil ratios to utilize the increased volumes of soybean oil. Post forecasts rapeseed imports and crush will decline two percent from the previous year to 2.45 MMT and 2.40 MMT respectively in MY 2015/16 and MY 2016/17.

#### **Commodities:**

Oilseed, Soybean Oilseed, Rapeseed

#### Area harvested:

Some regions of Japan, such as Tokachi in Hokkaido, plant soybeans in dry fields in rotation with wheat, sugar beets, and potatoes. Farmers plant soybean or azuki beans as the pulse rotation. However, in the rest of Japan, the government of Japan (GOJ) encourages farmers to plant soybeans in rice paddies as a way to control the oversupply of rice. Soybean area planted in rice paddies accounted for 83 percent of soybean planted area in MY 2015/16. Farmers in Tokai and Northern Kyushu commonly plant rice, winter wheat and soybeans as part of a two-year crop rotation. Sources indicate that the combination of winter wheat and soybeans can be as profitable as rice alone, but farmers in northern Japan and Hokuriku (Japan Sea side) are unable to do this two-year rotation, because winter wheat needs longer period to grow there, and they cannot harvest it before soybean planting season.

MY 2015/16 planted area increased eight percent from the previous year and was the largest planted area since 2009 (145,300 HA). The planted area in Hokkaido increased 19 percent due mainly to farmers switching from azuki beans, which were offering lower returns. A government program that encourages farmers to divert rice paddies from table rice production into feed rice, wheat, and soybean production (among others), combined with a relatively high price for domestic soybeans, resulted in an

increase in soybean planted area in Tohoku of eight percent. The planted area of these two regions accounts for 48 percent of soybean planted area and for 78 percent of the increase in planted area in MY 2015/16. The subsidy payment for replacing rice production with soybeans improved the prospective return for soybeans ahead of planting decisions (see the 2013 Oilseeds and Products Annual Report JA3011 for more details).

Table 1. GOJ Table Rice Diversion Subsidies

Crop/Subsidy (Yen/0.1 hectares)	JFY 2013	JFY 2014 - 2016
Wheat, Soybeans, Feed Crop	35,000	35,000
Paddy Rice for WCS*	80,000	80,000
Buckwheat, Rape Seed	20,000	20,000
Rice for Industrial Use	20,000	20,000
Feed Rice, Rice for Flour	80,000	55,000 - 105,000

<sup>\*</sup> WCS: Whole Crop Silage, Approximate Exchange Rate: 113 Yen = \$1JFY: Japan fiscal year (April – March)

Post forecasts MY 2016/17 planted area will remain high at 142,000 HA due to the continuation of Japan's rice diversion subsidies and better returns compared to crops such as azuki beans.

Table 2. Planted Area, Production and Yield of Soybeans in Japan

MY	Planted Area (Hectares)	Production	Yield
		(MT)	(MT per hectare)
2011/12	136,700	218,800	1.60
2012/13	131,100	235,900	1.80
2013/14	128,800	198,000	1.55
2014/15	131,600	225,600	1.76
2015/16	142,000	242,400	1.71

Source: MAFF (approximate figures for MY2015/16)

#### Production:

MY 2015/16 soybean production increased five percent to 242,400 metric tons (MT). The increase in planted area more than made up for low yields, which were down three percent from the previous year due to typhoon damage in the Kanto region and also low temperatures and poor sunshine in the western Tokai region, which retarded growth and grain filling.

As the inherently poor drainage of rice paddy soils results in significantly lower yields, national yield averages remain stubbornly low, at little more than half of U. S. yields. The average yield for the last ten years has been 1.65 MT/HA, but yields vary dramatically by region. The Ministry of Agriculture, Forestry and Fishery (MAFF) began a five-year research project to improve soybean yields beginning in Japan fiscal year (JFY; April-March) 2015. The project involves approximately 50 organizations, including 28 prefectures, industry groups, academia and private companies. The project will develop diagnostic procedures and countermeasure techniques, as well as collect physical, chemical and

biological data from the soil in soybean fields to investigate factors that contribute to low yields.

Another problem for domestic soybeans is unstable quality. The percentage of lower quality soybeans ("3<sup>rd</sup> class" and "specific end-use class") has been high for the last five years, ranging from 38 to 51 percent of total production. Quality issues include wrinkled or broken skin, cracks, high inclusion of foreign materials, and rotten or dirty beans. These problems are caused by various factors such as wet soil, drought in summer, an early or late harvest, inadequate preparation for harvest, and insufficient pest control.

Though Japan has approved 16 genetically engineered (GE) soybean varieties for commercial production, potential yield improvements through GE technology remain unattainable as social and administrative hurdles preclude the technology's use (see <u>JA5024</u>, the 2015 Japan Agricultural Biotechnology Annual Report, for more details).

Of note in the Basic Plan for Food, Agriculture, and Farm Villages approved in March 2015, MAFF is aiming to produce 320,000 MT of soybeans, with a planted area of 150,000 HA and a yield of 2.15 MT/HA, by 2025. To date, only two prefectures (Hokkaido and Saga) have reached the target yield.

Although many high-yielding soybean varieties have been developed, five traditional lower-yielding soybean varieties account for more than 60 percent of production. Farmers prefer these varieties as using them avoids the challenge of producing and marketing a new variety. Minimal interest in introducing yield-improving varieties, combined with limited available land to expand oilseed area, makes reaching the targets challenging. A concerted effort by the GOJ and JA Zen-Noh to expand production of rice for feed is expected to further discourage expanded soybean planted area. In MY 2015/16, Japan increased its feed rice production 2.3 times more than the previous year, to 421,000 MT, and aims to increase feed rice another 30 percent in MY 2016/17 by converting additional land from table rice production.

Based on the factors described above, Post forecasts soybean planted area and production to remain unchanged in MY 2016/17 at 140,000 HA and 240,000 MT respectively.

Domestic rapeseed production is primarily for ornamental or small local crushers to make products for local consumption. MY 2015/16 planted area and production were minimal and negligible, at 1,620 HA and 3,100 MT (a mere 0.1 percent of imports) respectively.

### Consumption

Crush:

Soybean oil historically had the largest share of the vegetable oil market. However, today soybean oil is the third largest oil consumed in Japan, after rapeseed and palm oil. Japanese consumption of rapeseed oil exceeded soybean oil in 1989, and then palm oil overtook soybean oil in 2009.

However, in the last two years, demand for soybean meal and oil has been gradually increasing vis-a-vis rapeseed. Feed manufacturers have been increasing the use of soybean meal in compound feed, as soybean meal offers several advantages compared to rapeseed meal. (See Meal section below.) In addition, oil manufacturers are increasing the consumption of soybean oil by changing the ratio of blended products for food services and processed food manufacturers.

Post forecasts that soybean crush in MY 2015/16 and MY 2016/17 will increase by 12 percent from MY 2014/15 to 2.4 million metric tons (MMT) based on strong soybean meal demand from Japanese feed millers and low international prices supported by strong production in the United States, a good crop forecast in Brazil, and low ocean freight costs.

As previously noted, rapeseed oil has the largest share in Japan's domestic vegetable oil market. Post estimates that it accounts for 75 percent of the in home-use oil market and for 44 percent of the entire oil market, including food service use and processed food manufacturing use.

Although demand for in home-use is stable, Post forecasts the crush volume for MY 2015/16 and MY 2016/17 will fall by two percent from the current marketing year to 2.4 MMT due to increasing use of soybean oil products by professionals and for processed foods. Oil manufacturers decrease the ratio of rapeseed oil and increase soybean oil in blended oil products.

Post estimates that Japan had 40 crushing plants in 2015 and maintained the same crushing capacity as the previous year. Of these 40 plants, thirteen were large-scale plants that have a combined crushing capacity of approximately 90 percent of Japan's annual oil consumption. Most of those plants were built in the late 1960's, and the cost of maintaining and or refurbishing and operating these plants are high. J-Oil Mills, which is one of the major oil crushing companies, is building a soybean crushing plant in Okayama prefecture that will begin operations in April 2017, with the capacity to produce 70,000 MT of soybean oil and 300,000 MT of soybean meal. They will close their Kobe plant, which is 48 years old, after the new mill opens. The highly efficient new plant will be more profitable and will crush soybeans exclusively. The facility will require only half the staff and is forecast to save 700 million to one billion yen (6.1 to 8.8 million USD) in annual operating costs. Zen-Noh silo and JA East Japan Cooperative Feed are also constructing storage and a feed plant near the new crushing facility. They will use soybean meal from the new plant to produce 800,000 MT of animal feed annually.

Table 3. Japan's Oil Crushing Capacity

CY	Number of Mills*	Crushing Capacity* (1,000 MT)	Materials crushed (1,000 MT)	Operating Ratio* (percent)
2011	40	8,587	5,087	59.2
2012	40	8,587	4,977	58.0
2013	40	8,587	4,977	57.5
2014	40	8,587	5,068	59.0
2015	40	8,587	5,335	62.1

Source: MAFF (Vegetable oil production report), \* Post estimate

# Food Use Consumption:

Although soybeans are typically crushed to produce oil and meal in the rest of the world, soybeans have historically been a food crop in Japan, used for the production of soy foods such as tofu, natto, boiled beans, soy sauce, and miso. Although over the long-term consumption is expected to decrease due to Japan's shrinking and aging population, in the short term, per capita consumption is fairly stable with some minor fluctuations. Post forecasts the consumption of soybeans in MY 2015/16 and 2016/17 at 881,000 MT, a marginal decrease from MY 2014/15. Food use consumption accounts for only one-fourth of total soybean consumption (food, oil, meal). Although there are no official statistics available, all domestic soybeans are reportedly used for food, and account for roughly 30 percent of food soybean demand.

Figure 1 depicts the end use of food soybeans in 2014. Tofu continues to dominate the utilization of food grade soybeans, accounting for almost half of total consumption. The majority of tofu manufacturers are small, geographically dispersed businesses. The number of tofu shops and companies decreased by 40 percent over the last ten years as the proprietors of family-run shops retired without successors. In addition, many tofu companies have gone out of business as the retail price of tofu at large supermarkets has remained relatively low.

Soy food is gradually regaining its popularity due to the rising health consciousness of Japanese consumers. Some tofu manufacturers have successfully developed and marketed innovative new products, including individual serving sized pot dishes with various flavors. The All-Japan Tofu Federation hosted the first ever tofu competition in Kyoto last year to promote exchanges among and a deeper appreciation for regional tofu shops. In addition to these efforts to develop the tofu market, two tofu industry organizations contributed to the creation of a fair competition standard for tofu. A voluntary standard for some types of tofu that was established in 1980 is out of date and does not cover all types of tofu. This new standard is meant to improve the value and quality of tofu by setting production standards for all tofu products. The industry organizations are planning to announce the standard in October 2017.

Soybean Utilization for Food in 2014 Roasted Soy Flour 2%. Other Frozen Tofu 2% 10% **Boiled Beans** 3% Soy Sauce 4% Tofu Sov Milk 47% 5% Natto 13% Miso 14%

Fig.1 Volume of soybean use for food

Source: MAFF

# Feed, Seed, Waste Consumption:

Soybeans for feed, seed and waste is fairly stable from year to year. Post forecasts MY 2015/16 and MY 2016/17 will continue to be stable at 147,000 MT.

Rapeseeds (whole seed) are not used for feed, and the volume for seed is negligible in Japan. Post forecasts rapeseed feed, seed and waste in MY 2015/16 and MY 2016/17 at 5,000 MT.

#### Trade:

Post forecasts soybean imports will increase five percent in MY 2015/16 and MY 2016/17 to 3.15 MMT due to strong demand for crushing to produce soybean meal and stable demand for food soybeans.

Soybean imports in MY 2014/15 were 3.004 MMT, which exceeded 3 MMT for the first time in five years due to improved crushing margins over rapeseed. The United States continued to dominate total Japanese soybean imports, expanding its market share by nearly six percentage points to 71 percent. Despite benefiting from the ability during the Northern Hemisphere's off-season, high oil content and less foreign materials, Brazilian soybean exports to Japan continue to face significant logistical constraints (truck availability, roads, port capacity).

All imported rapeseed is used for crushing. Post forecasts rapeseed imports in MY 2015/16 and MY 2016/17 will decrease four percent, to 2.4 MMT, as strong soybean crushing (based on soybean meal demand and better crushing margins) will replace some of the market share of oil and meal from rapeseed.

#### Stocks:

The GOJ had a soybean stocks program for 36 years, but discontinued it in 2010. Now Japan has only private stocks at crushing mills, distributors and feed millers. There is no on-farm stock, because farmers sell their crop to the local JA (Japan Agriculture cooperative) or other distributors right after harvesting. All domestic soybeans and imported non-GM soybeans are food soybeans for which there are no official statistics. According to an industry source, an end month volume of food soybeans varies depending on the season or market situation, but it is roughly 100,000 MT all year around.

There are no government-held stocks of rapeseed. Rapeseed stocks are held by crushing mills and the silo companies located next to the mills.

#### **Commodities:**

Meal, Soybean Meal, Rapeseed Meal, Fish Meal, Palm Kernel

#### Production:

Post forecasts soybean meal production will increase by 12 percent in MY 2015/16 from the previous year, to 1.825 MMT, due to the competitive price of domestic meal versus Chinese meal and strong demand for feed. In the first five months of MY 2015/16, feed manufacturers increased the ratio of soybean meal in compound feed, as it has the highest protein content among the vegetable proteins and is cost effective. In order to increase the production of soybean meal, oil manufacturers are increasing the consumption of soybean oil by changing the ratio of blended products for food services and processed food manufacturers. As this situation is expected to continue, Post forecasts MY 2016/17 production will remain at 1.825 MMT.

As for rapeseed meal production, Post forecasts the volume for MY 2015/16 and MY 2016/17 will be two percent lower from the previous marketing year, at 1.34 MMT, due to a lower crushing margin when compared to soybeans.

Fish meal is used to produce feed primarily for aquaculture and some livestock, and a small volume is utilized for fertilizer. Ninety percent of fish meal produced in Japan is made from fish residue, and only ten percent is produced from whole raw fish. The domestic fish processing industry has been shrinking slowly. Fish meal production and consumption are anticipated to be relatively flat in MY 2015/16 and MY 2016/17. Post forecasts fish meal production in MY 2015/16 and MY 2016/17 at 180,000 MT, which is down two percent from last year. Palm kernel meal is all imported, and there is no production in Japan.

Consumption: Feed, industrial and food consumption:

Consumption of soybean meal for feed is about 3 MMT every year. Domestic and imported soybean meals are competing to gain market share.

Table 4 outlines Post's forecast for Japanese livestock population in CY 2016. Post expects the population of beef cattle and dairy cows to decrease, while swine are expected to recover from the Porcine Epidemic Diarrhea (PEDv) virus that devastated the pork industry in 2014. The poultry population is expected to remain unchanged.

Table 4. Japanese Livestock Population (1,000 heads)

CY	Dairy Cows	Beef Cattle	Swine	Layers	Broilers
2011	1,467	2,763	9,768	175,917	NA
2012	1,449	2,723	9,735	174,949	NA
2013	1,423	2,624	9,685	172,238	131,624
2014	1,395	2,567	9,537	172,349	135,747
2015	1,371	2,489	9,440*	176,500*	140,000*
2016	1,343*	2,440*	9,600*	176,500*	140,000*
2016/15	-2.0%	-2.0%	1.7%	0%	0%

Source: MAFF Monthly Statistics of Agriculture (as of February each year), \*: Post estimate No survey for swine and poultry was conducted in 2015 due to the agricultural census.

Japanese compound feed products contain about 13 percent soybean meal, which is the second most used ingredient in Japan after corn. Out of total soybean meal use for compound feed in Japan, 60 percent of soybean meal is used for poultry (layers and broilers), 20 percent is used for swine, 10 percent for beef and 10 percent for dairy cows. Post anticipates that the increasing swine population and rising use of soybean meal in compound feed will counterbalance the decline in soybean meal use by dairy cows and beef cattle. As a result, Post forecasts feed consumption (including waste) of soybean meal will increase by four percent from the previous year in MY 2015/16, to 3.075 MMT. Post expects this trend will continue into MY 2016/17.

Japan utilizes soybean meal as a raw material in food products such as soy protein and soy sauce, estimated at 300,000 MT annually.

Rapeseed meal is the second largest vegetable protein after soybean meal in compound feed products. Its inclusion rate in compound feed has averaged between 4.2 and 5 percent for the past five years, with a record high of 5.4 percent from July to September 2015 due mainly to its lower price compared to soybean meal. Although rapeseed meal has been growing in use as an inexpensive vegetable protein, it has less desirable features for feed production, including high tannin levels, coarse-grained texture preventing smooth flow, and dark color compared to soybean meal. In particular, the high tannin content lowers the metabolic energy of the meal and causes growth inhibition in livestock. As a result, there is a limit to how much rapeseed meal can be used in compound feed. Out of total rapeseed meal use for compound feed in Japan, 40 percent of rapeseed meal is used for poultry (layers and broilers), 30

percent for swine, 20 percent for beef cattle, and 10 percent for dairy cows. As the increase in compound feed production for swine is expected to counterbalance the decline in dairy cows and beef cattle, Post forecasts feed consumption of rapeseed meal (including waste) will increase two percent in MY 2015/16, to 1.15 MMT. Following the recovery of the swine population from the PEDv outbreak, MY 2016/17 rapeseed meal consumption is forecast to be stable at 1.15 MMT.

Fish meal is used primarily for feed for aquaculture, poultry and swine, with small amounts used for fertilizer. Aquaculture accounts for about 60 percent of volume for feed. As mentioned above, the domestic fish processing industry has been shrinking slowly. Fish meal consumption is anticipated to be relatively flat in MY 2015/16 and MY 2016/17, at 345,000 MT.

Palm kernel meal is a common feed ingredient in other countries, such as New Zealand. Trade statistics show that Japanese palm kernel meal imports have increased significantly in recent years. The Harmonized schedule (HS) code 230660 includes both palm kernel meal and palm kernel shells that are used for biomass fuel. Palm kernel meal has been imported for more than 30 years and has historically been a minor ingredient in feed. The annual import volume of palm meal has consistently been approximately 5,000 to 7,000 MT over the last five years. The substantial growth in imports under this HS code is largely the result of palm kernel shells that are imported for use in co-generation biomass facilities. The number of these facilities has been increasing significantly in the same number of years, and palm kernel shells are a registered alternative to the forest thinnings that many of these facilities are designed to utilize.

For information about other ingredients for feed, such as distillers dried grains (DDGs), please refer to the Japan Grain and Feed Annual, <u>JA-6004</u>.

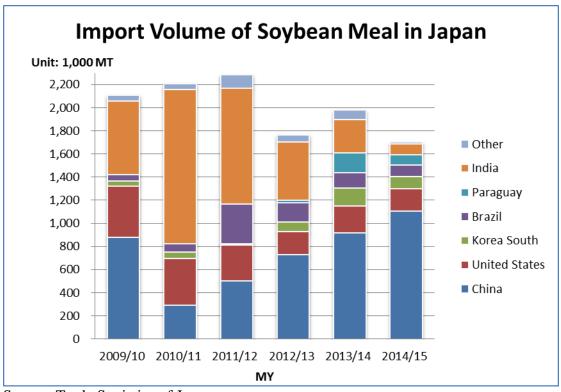
#### Trade:

Meal, Soybean

Soybean meal imports dropped 14 percent in MY 2014/15 from the previous year. Domestic soybean meal had a competitive price advantage compared to imports due to favorable crushing margins. China and the United States are the major exporters of soybean meal and accounted for 66 and 12 percent, respectively, in MY 2014/15 (See Figure 2). The price of U. S. meal is more expensive than Chinese conventional meal. The U. S. soybean meal is loaded on a large vessel such as handy max or panamax vessel with corn, so the volume of one shipment from the United States is larger (minimum 4,000 to 8,000 MT) than that from China (minimum 2,000 to 3,000 MT). Therefore, Chinese soybean meal is more affordable and flexible for shipment. Soybean meal from India is non-GE, and the majority of it is used for food, such as soy protein and soy sauce.

China exports only two to three percent of its soybean meal production. These exports allow Chinese companies to adjust their inventories. In the first five months of MY 2015/16, Japanese soybean meal imports were down two percent compared to the same period of last year. Post forecasts soybean meal imports in MY 2015/16 will decrease two percent to 1.625 MMT and will remain unchanged through MY 2016/17, due to the competitiveness of domestic soybean meal over imports and limited export pressure in China due to strong domestic consumption and a weak international soybean price.

Fig. 2 Import volume of soybean meal in Japan



Source: Trade Statistics of Japan

# Meal, Rapeseed

Rapeseed meal trade is minimal, and primarily to adjust inventory and meet urgent needs.

## Meal, Fish

Post forecasts fish meal imports in MY 2015/16 will decrease five percent from the previous year to 220,000 MT, due to rising global prices and shrinking demand as compound feed manufacturers switch to other protein sources. Post anticipates this situation will stabilize at 220,000 MT in MY2016/17.

#### **Commodities:**

Oil, Soybean

Oil, Rapeseed

Oil, Palm

#### Oilseed, Sunflowerseed

#### **Production:**

Japan's production of soybean oil and rapeseed oil is protected by high import duties. Japan's crushing industry produces all soybean and rapeseed oil from imported materials. MY 2015/16 and 2016/17 soybean oil production is forecast at 475,000 MT, which is up 15 percent from MY 2014/15 based on stable soybean meal demand from Japanese feed millers and low international prices of soybeans supported by strong production in the United States, a good crop forecast in Brazil and low ocean freight costs.

Rapeseed oil demand is steady but has limited expansion potential, since it already has a large market share. With increasing soybean oil production, some portion of rapeseed oil has been replaced by soybean oil as they are inter-changeable in some blended products. Post forecasts rapeseed oil production will decrease four percent in MY 2015/16 and MY 2016/17 from the previous year to 1.03 MMT.

# Consumption:

According to MAFF, soybean oil, rapeseed oil and palm oil are the major vegetable oils, accounting for 17, 44 and 23 percent of total domestic vegetable oil consumption (2.32 MMT) respectively in CY 2014. The remaining 16 percent of domestic vegetable oil consumption include the following: corn oil, rice oil, olive oil, palm kernel oil, sesame oil and coconut oil.

Table 5 shows volume of major oils for various uses. Post estimated volume of oils used at home and professional. Professional use includes the volume of oil consumed at hotels, restaurants, in-store cooking and food services. According to MAFF's latest report, per capita vegetable oil supply was stable at 34.6 gram per day from JFY 2008 to 2013. Sources indicate that per-capita oil consumption was flat in MY 2014/15 and is expected to remain stable in MY 2015/16 and MY 2016/17.

Table 5. Vegetable oil consumption in CY 2014 (1,000 MT)

Oil	Home*	Professional*	Processed food	Total food use	%	Non-food use	Grand total
Soybean					17%	26	
-	30	169	195	394			420

Rapesee	307				44%	56	
d		64	371	1,025			1,081
Palm	15				23%	92	
		78	449	543			635
Other	58				16%		
		264	192	361		143	504
Total	410		1,207		100		
		575		2,323	%	317	2,640
%	16%	22%	46%	88%	-	12%	100%

Source: MAFF oil and fat market annual report by in 2015

Rapeseed oil dominates the home-use market as cooking oil due to its healthy image and high oleic acid content. Soybean oil is often used at food services and restaurants, blended with other oils, such as sesame seed oil. It is especially suitable for tempura, offering good flavor and a light color. Palm oil is solid at room temperature and has no color or flavor. Palm oil is used to produce various processed products, including chocolate, instant noodles and ice cream. Palm oil, rapeseed oil and soybean oil are the top three ingredients for margarine, "fat spread" (vegetable oil-based low-fat flavored cream) and shortening. Non-food uses of oils include paint, varnish, ink, soap and lubricant. Although Japan recycles used vegetable oils to produce bio diesel fuel, volumes are limited. Japan has no commercial operation for the production of bio diesel fuel from vegetable oil. For Japan's biofuels policy, please refer to Post's biofuels annual report (JA5022).

Home use products are bottled in 1.5 liter or smaller containers. Professional-use products are provided in a larger container, such as 18-liter cans. Oils for processed food products are delivered to customers from factories by a tanker truck. Japanese oil crushers also refine crude oil and make final products to meet customers' needs. For example, products for various food services, such as tempura, pork cutlet, and doughnut restaurants, are a blend of several oils and are customized to meet user preferences.

#### Trade:

Palm oil is the second most commonly utilized oil in Japan; it overtook soybean oil in 2009 after Japan signed Economic Partnership Agreements with Malaysia in 2005 and Indonesia in 2008, which granted duty free access to palm oil. Imports were relatively flat over the last three years and are expected to remain stable, as there is little room for growth among the chief users, namely professional and processed food producers. Post anticipates imports of palm oil will be stable in MY 2015/2016 and 2016/17 at 600,000 MT.

Sunflower seed oil imports have been small and flat. This oil has high oxidation stability due to a rich content of oleic acid. It is used to produce a substitute for cocoa butter. Based on recent trends, Post estimates Japan will import around 30,000 MT in MY 2015/16 and MY 2016/17.

Japan imposes heavy tariffs on oil imports to protect the crushing industry. There is virtually no trade in soybean oil and rapeseed oil. Table 6 shows Japan's tariffs on major oilseeds and oils.

<sup>\*:</sup> Post estimate

Table 6. Japan's tariff on major oilseeds and oils (as of January 2016

HS Code	Commodity	Duty
1201.10,.90	Soybeans	Free
1205.10,.90	Rapeseed	Free
1507.10-100	Soybean oil, crude, of an acid value exceeding 0.6	10.9 yen/kg
1507.10-200	Soybean oil, crude, other	13.2 yen/kg
1507.90-000	Soybean oil, other	13.2 yen/kg
1508.10-100	Peanut oil, crude, of an acid value exceeding 0.6	8.5 yen/kg
1509 & 1510	Olive oil	Free
1511.10-000	Palm oil, crude, EPA preferential rate for Malaysia and Indonesia	Free
1511.90-010	Palm stearin, EPA preferential rate for Malaysia and Indonesia	Free
1511.90-090	Palm oil, other, EPA preferential rate for Malaysia and Indonesia	Free
1512.11-110	Sunflower-seed oil, crude, of an acid value exceeding 0.6	8.5 yen/kg
1512.11-210	Safflower oil, crude, of an acid value exceeding 0.6	8.5 yen/kg
1512.11-120	Sunflower-seed oil, crude, other	10.4 yen/kg
1512.11-220	Safflower-seed oil, crude, other	10.4 yen/kg
1512.19-010	Sunflower-seed oil and its fractions	10.4 yen/kg
1514.11-100	Low erucic acid rapeseed oil, crude, of an acid value exceeding 0.6	10.9 yen/kg
1514.11-200	Low erucic acid rapeseed oil, crude, other	13.2 yen/kg
1514.19-000	Low erucic acid rapeseed oil, other	13.2 yen/kg
1514.91-100	Rapeseed oil, other, crude, of an acid value exceeding 0.6	10.9 yen/kg
1514.99-000	Rapeseed oil, other	13.2 yen/kg
1514.91-200	Rapeseed oil, other, crude, other	13.2 yen/kg
2301.20	Fish meal	Free
2304.00	Soybean meal	Free
2306.41,.49	Rapeseed meal	Free
2306.60	Oil-cake and other solid residues of palm nuts or kernels	Free

Source: Japan Tariff Association

# **PSD Tables**

Oilseed, Soybean	2014/2015	2015/2016	2016/2017
Market Begin Year	Oct 2014	Oct 2015	Oct 2016

Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	132	132	130	142	0	140
Area Harvested	132	128	130	138	0	137
Beginning Stocks	228	228	218	283	0	247
Production	226	232	220	242	0	240
MY Imports	3004	3004	2900	3150	0	3150
MY Imp. from U.S.	2135	2135	1850	2140	0	2140
MY Imp. from EU	0	0	0	0	0	0
Total Supply	3458	3464	3338	3675	0	3637
MY Exports	0	0	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Crush	2150	2150	2020	2400	0	2400
Food Use Dom. Cons.	940	884	925	881	0	881
Feed Waste Dom.	150	147	152	147	0	147
Cons.						
Total Dom. Cons.	3240	3181	3097	3428	0	3428
Ending Stocks	218	283	241	247	0	209
Total Distribution	3458	3464	3338	3675	0	3637
(1000 HA), (1000 MT)					<u> </u>	

Meal, Soybean	2014/201	5	2015/2010	6	2016/201	7
Market Begin Year	Oct 2014		Oct 2015	;	Oct 2016	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	2150	2150	2020	2400	0	2400
Extr. Rate, 999.9999	0.7567	0.7567	0.7554	0.7604	0	0.7604
Beginning Stocks	184	184	130	111	0	86
Production	1627	1627	1526	1825	0	1825
MY Imports	1699	1665	1850	1625	0	1625
MY Imp. from U.S.	250	193	250	200	0	200
MY Imp. from EU	0	2	0	0	0	0
Total Supply	3510	3476	3506	3561	0	3536
MY Exports	0	0	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	300	110	300	100	0	100
Food Use Dom. Cons.	130	300	130	300	0	300
Feed Waste Dom. Cons.	2950	2955	2928	3075	0	3075
Total Dom. Cons.	3380	3365	3358	3475	0	3475
Ending Stocks	130	111	148	86	0	61
Total Distribution	3510	3476	3506	3561	0	3536

(1000 MT) ,(PERCENT)			
Oil, Soybean	2014/2015	2015/2016	2016/2017

Market Begin Year	Oct 2014	ļ	Oct 2015	5	Oct 2016	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	2150	2150	2020	2400	0	2400
Extr. Rate, 999.9999	0.1953	0.1926	0.195	0.1979	0	0.1979
Beginning Stocks	25	25	33	14	0	15
Production	420	414	394	475	0	475
MY Imports	6	6	15	5	0	5
MY Imp. from U.S.	1	2	1	2	0	2
MY Imp. from EU	0	0	0	0	0	0
Total Supply	451	445	442	494	0	495
MY Exports	3	3	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	35	26	35	27	0	28
Food Use Dom. Cons.	380	400	385	450	0	450
Feed Waste Dom. Cons.	0	2	0	2	0	2
Total Dom. Cons.	415	428	420	479	0	480
Ending Stocks	33	14	22	15	0	15
Total Distribution	451	445	442	494	0	495
(1000 MT) ,(PERCENT)		l .	I	1	I	I

Oilseed, Rapeseed	2014/2015		2015/2016		2016/2017	
Market Begin Year	Oct 2014		Oct 2015		Oct 2016	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	2	0	2	0	2
Area Harvested	2	2	2	2	0	2
Beginning Stocks	84	84	99	111	0	159
Production	2	3	2	3	0	3
MY Imports	2489	2489	2450	2450	0	2450
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from EU	0	0	0	0	0	0
Total Supply	2575	2576	2551	2564	0	2612
MY Exports	0	0	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Crush	2471	2460	2450	2400	0	2400
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	5	5	5	5	0	5
Total Dom. Cons.	2476	2465	2455	2405	0	2405
Ending Stocks	99	111	96	159	0	207
Total Distribution	2575	2576	2551	2564	0	2612
(1000 HA), (1000 MT)						

Meal, Rapeseed	2014/2015 2015/2016 Oct 2014 Oct 2015		6	2016/201	7	
Market Begin Year			5	Oct 2016		
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	2471	2460	2450	2400	0	2400
Extr. Rate, 999.9999	0.5633	0.5585	0.5551	0.5542	0	0.5542
Beginning Stocks	15	15	26	27	0	32
Production	1392	1374	1360	1330	0	1330
MY Imports	11	11	60	40	0	30
MY Imp. from U.S.	0	0	0	0	0	0
MY Imp. from EU	0	0	0	0	0	0
Total Supply	1418	1400	1446	1397	0	1392
MY Exports	53	53	0	25	0	25
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	260	190	250	190	0	190
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	1079	1130	1170	1150	0	1150
Total Dom. Cons.	1339	1320	1420	1340	0	1340
Ending Stocks	26	27	26	32	0	27
Total Distribution	1418	1400	1446	1397	0	1392
(1000 MT) ,(PERCENT)				I		

Oil, Rapeseed	2014/2015 2015/2016		6	2016/201	7	
Market Begin Year	Oct 2014	Oct 2014 Oct 2015		Oct 2016		
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	2471	2460	2450	2400	0	2400
Extr. Rate, 999.9999	0.4346	0.4366	0.4388	0.4292	0	0.4292
Beginning Stocks	125	125	160	114	0	72
Production	1074	1074	1075	1030	0	1030
MY Imports	20	20	12	20	0	20
MY Imp. from U.S.	0	1	0	1	0	0
MY Imp. from EU	0	1	0	1	0	0
Total Supply	1219	1219	1247	1164	0	1122
MY Exports	1	1	1	1	0	1
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	60	58	60	60	0	60
Food Use Dom. Cons.	998	1040	1050	1025	0	1025
Feed Waste Dom.	0	6	0	6	0	6
Cons.						
Total Dom. Cons.	1058	1104	1110	1091	0	1091
Ending Stocks	160	114	136	72	0	30
Total Distribution	1219	1219	1247	1164	0	1122
(1000 MT) ,(PERCENT)	<u> </u>	l	<u> </u>	<u> </u>	I	I

Meal, Palm Kernel	2014/201	15	2015/201	16	2016/201	7	
Market Begin Year	Oct 2014		Oct 201	5	Oct 2016		
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post	
Crush	0	0	0	0	0	0	
Extr. Rate, 999.9999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
<b>Beginning Stocks</b>	0	0	0	45	0	88	
Production	0	0	0	0	0	0	
MY Imports	0	362	0	600	0	1,000	
MY Imp. from U.S.	0	0	0	0	0	0	
MY Imp. from EU	0	0	0	0	0	0	
Total Supply	0	362	0	645	0	1,088	
MY Exports	0	0	0	0	0	0	
MY Exp. to EU	0	0	0	0	0	0	
Industrial Dom. Cons.	0	335	0	550	0	960	
Food Use Dom. Cons.	0	0	0	0	0	0	
Feed Waste Dom. Cons.	0	7	0	7	0	7	
Total Dom. Cons.	0	342	0	557	0	967	
Ending Stocks	0	45	0	88	0	121	
Total Distribution	0	387	0	645	0	1,088	
(1000 MT) ,(PERCENT)							

Oil, Palm	2014/201	15	2015/201	16	2016/201	.7		
Market Begin Year	Oct 2014		Oct 2015		Oct 2016			
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post		
Area Planted	0	0	0	0	0	0		
Area Harvested	0	0	0	0	0	0		
Trees	0	0	0	0	0	0		
Beginning Stocks	11	11	19	23	0	21		
Production	0	0	0	0	0	0		
MY Imports	618	618	600	600	0	600		
MY Imp. from U.S.	0	0	0	0	0	0		
MY Imp. from EU	0	0	0	0	0	0		
Total Supply	629	629	619	623	0	621		
MY Exports	0	0	0	0	0	0		
MY Exp. to EU	0	0	0	0	0	0		
Industrial Dom. Cons.	35	84	35	80	0	80		
Food Use Dom. Cons.	575	520	580	520	0	520		
Feed Waste Dom. Cons.	0	2	0	2	0	2		
Total Dom. Cons.	610	606	615	602	0	602		
<b>Ending Stocks</b>	19	23	4	21	0	19		
Total Distribution	629	629	619	623	0	621		
(1000 HA) ,(1000 TREES)	(1000 HA) ,(1000 TREES) ,(1000 MT)							

Meal, Fish	2014/2015		2015/201	6	2016/201	7
Market Begin Year	Jan 2015		Jan 2016		Jan 2017	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Catch For Reduction	860	840	860	830	0	820
Extr. Rate, 999.9999	0.2151	0.219	0.2151	0.2169	0	0.2195
Beginning Stocks	27	27	27	45	0	48
Production	185	184	185	180	0	180
MY Imports	240	231	240	220	0	220
MY Imp. from U.S.	5	12	5	10	0	10
MY Imp. from EU	0	10	0	0	0	0
Total Supply	452	442	452	445	0	448
MY Exports	5	2	5	2	0	2
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	50	50	50	50	0	50
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	370	345	370	345	0	345
Total Dom. Cons.	420	395	420	395	0	395
Ending Stocks	27	45	27	48	0	51
Total Distribution	452	442	452	445	0	448
(1000 MT) ,(PERCENT)		I.	I .	<u> </u>	I	l .

Oil, Sunflowerseed	2014/2015 2015/2016		16	2016/201	.7	
Market Begin Year	Oct 2014 Oct 2015		5	Oct 2016		
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	0	0	0	0	0	0
Extr. Rate, 999.9999	0	0	0	0	0	0
Beginning Stocks	5	5	5	6	0	6
Production	0	0	0	0	0	0
MY Imports	27	27	30	25	0	25
MY Imp. from U.S.	15	13	15	13	0	13
MY Imp. from EU	0	8	0	5	0	5
Total Supply	32	32	35	33	0	33
MY Exports	0	0	0	0	0	0
MY Exp. to EU	0	0	0	0	0	0
Industrial Dom. Cons.	0	2	0	2	0	2
Food Use Dom. Cons.	27	24	30	25	0	25
Feed Waste Dom. Cons.	0	0	0	0	0	0
Total Dom. Cons.	27	26	30	27	0	27
Ending Stocks	5	6	5	4	0	2
Total Distribution	32	32	35	33	0	33
(1000 MT) ,(PERCENT)						