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Japan

Potatoes and Potato Products Annual

Summer Typhoons Reduce Japanese Potato Production

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Report Highlights:

Heavy rains in August and September reduced Japan's potato crop by approximately 500,000 metric tons (MT), or 20 percent lower than market year (MY) 2015/16. Accordingly, Post forecasts record exports of U.S. chipping potatoes and increased demand for processed and frozen potato products in MY 2016/2017. Japan's fast food sector began to recover from slowing sales in 2015, but increased demand for frozen french fries still remains low. Post forecasts reduced consumption of fresh potato products in MY 2016/2017 on supply constraints and limited alternative sources due to market access barriers.

Keywords: Japan, potato, chips, chipping, french fries, starch.

Commodities:

Potato Products, Frozen

Production

Hokkaido is located 600 miles north of Tokyo and is Japan's largest fresh potato producing region, accounting for nearly 80 percent of total domestic production. Agriculture in Hokkaido is relatively large in scale and the weather is cool, providing suitable conditions for potato cultivation. The second largest production region is Kyushu, the southern-most of Japan's four main islands accounting for 8.6 percent. Early harvest in Kyushu takes place in June, while Hokkaido harvest begins in September. Approximately 98 percent of annual domestic fresh potato production are harvested from June to September and are stored for distribution through the year. The remaining 2 percent is table potato harvested in Kyushu between March and April as well as November and December.

Japan's fresh potato planted area continues to decrease marginally at the rate of approximately 2 percent per year, down to 77,330 hectare (ha) in MY 2015/16 from 78,300 ha in MY 2014/2015. The underlying structural problems behind this trend include a lack of farm successors, labor market constraints, and the aging of Japan's population. Furthermore, some potato farmers have switched from growing potato to wheat, as it is less labor intensive (particularly during harvest). Potato harvest is notably inefficient due to the use of tractor-driven and small harvesters, as well as manual sorting of poor grade potatoes. These constraints are expected to accelerate modestly in the coming years along with Japan's population decline and the rate of farmer retirement.

Domestic Fresh Potato Data:

Fresh Potatoes - Japan Market Begin Year	MY 2014/2015	MY 2015/2016	MY 2016/2017*
	July 2014	July 2015	July 2016
Area Planted (ha)	78,300	77,330	70,000
Production (MT)	2,456,000	2,395,800	1,900,000
Consumption (MT)			
Table Potatoes	669,800 (27.3%)	630,000	500,000
Processed potato products	534,800 (21.8%)	550,000	440,000
Potato starch	849,000 (34.6%)	850,000	680,000
Others	402,400 (16.3%)	365,800	280,000

Source: MAFF
Asterisk indicates
FAS/Tokyo forecasts.

Hokkaido is generally spared from the rainy seasons and typhoon strikes that more often afflict the southern islands. However, four typhoons struck

Hokkaido in August 2016 for the first time since record keeping began more than 100 years ago. The Ministry of Agriculture, Forestry and Fisheries (MAFF) reported that approximately 24,000 ha of land received damaging levels of rain as well as flooding, including those producing fresh potatoes. Post estimates a 20 percent yield loss, reducing national production to 1.9 million metric tons (MMT) in MY 2016/2017 compared to 2.4 MMT in MY 2015/16. Post has adopted a conservative forecast given the continued uncertainty of the damage, and acknowledges some reports of damage in excess of 25 percent. As of mid-September, some farms were still too wet for harvester entry, and overall potato harvest in Hokkaido is behind schedule. Some farmers have plowed-under potatoes to prepare for wheat cultivation, which usually follows potatoes as a rotation crop. In addition, further losses are expected

during storage due in part to high moisture content of harvested potatoes.



These pictures depict the floods in Hokkaido potato farms (left) and potato losses due to soil runoff and exposure (right).

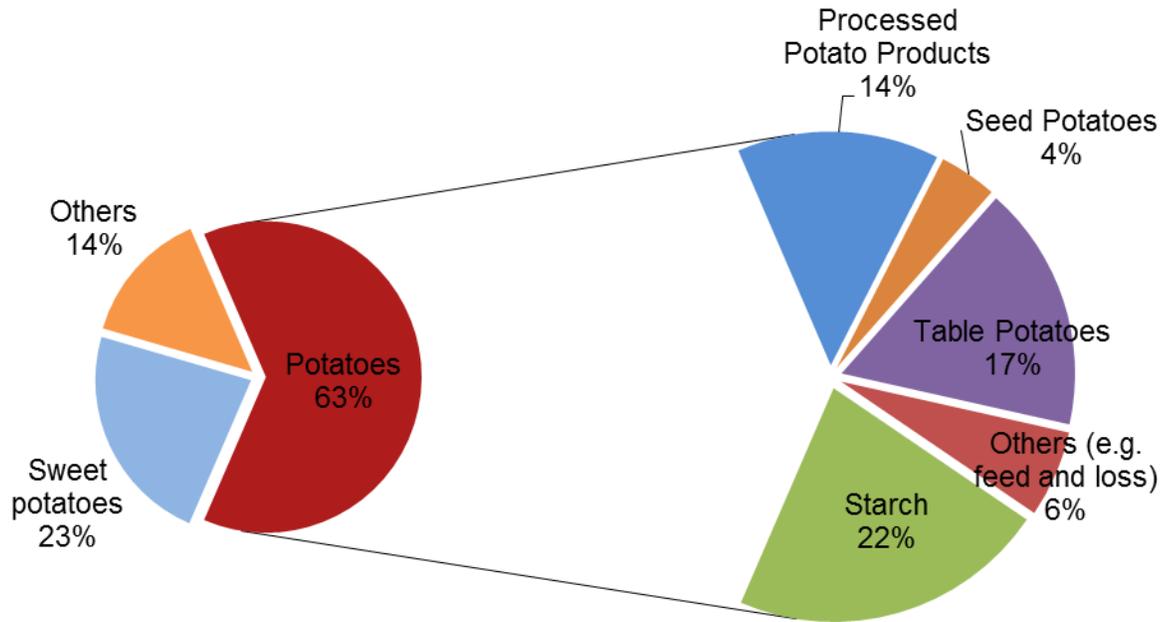
Source: The Hokkaido Shimbun Press

Farms designated to produce seed potatoes were affected by the typhoons and floods in 2016 (described later) and Post estimates a minimum loss of 10 percent to seed potato production. Post therefore forecasts a decrease in planted area to 70,000 ha, a 9.5% decrease from MY 2016/17.

Consumption

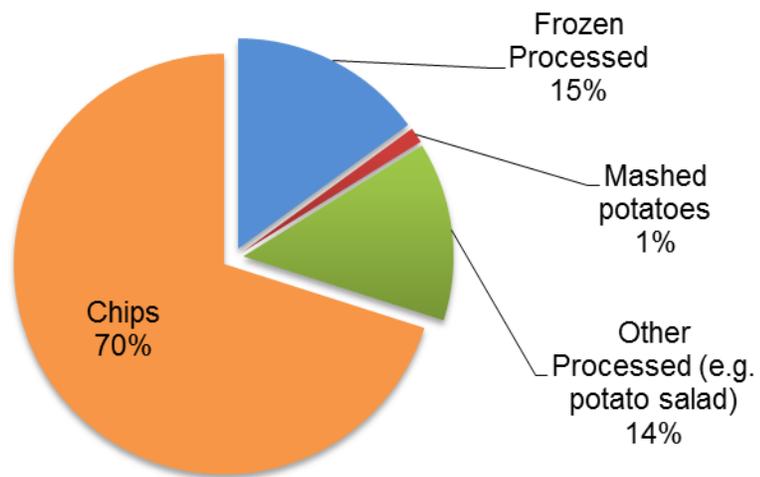
The leading uses of fresh potatoes in Japan are for starch, table consumption and processed potato products (distribution provided in the chart below). Recently, consumption of table potatoes and starch has decreased marginally due to declines in planted areas and production. For table potatoes, consumer preference is for ready-made foods, and dining out further accelerated the transition from consuming fresh to consuming frozen potato products, many of which are imported. For starch, unstable potato production in recent years has encouraged industry members to shift from domestic potato-starch to imported corn-starch. On the other hand, the consumption of processed potato products, such as potato chips, has been increasing annually. Accordingly, the chipping industry anticipates one percent annual growth. However, overall fresh potato consumption is decreasing slightly each year in Japan, corresponding to the marginal decline of fresh potato production.

Japanese Tuber Production in MY 2014/2015
Total = 3,870,500 MT



Source: MAFF

Distribution of processed potato products using domestically produced potatoes in Japan in MY 2014/2015 (Total = 534,800 MT)



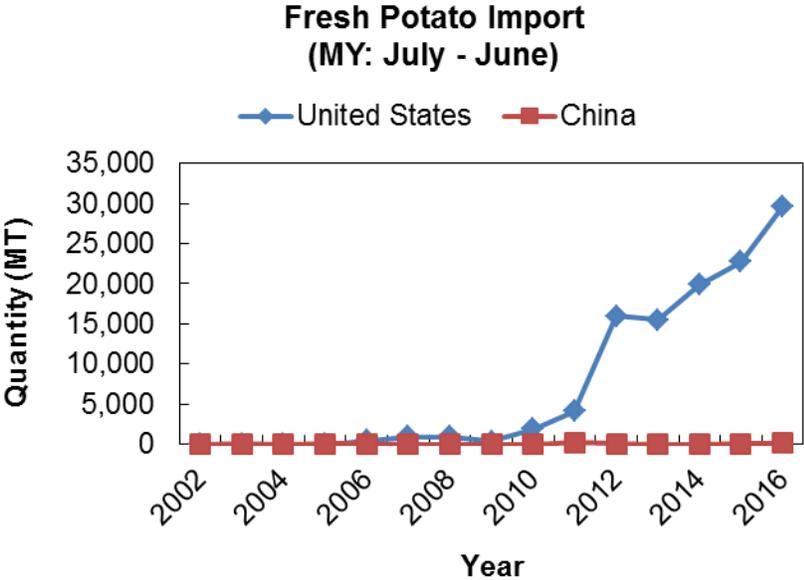
Source: MAFF

As noted previously, Japan’s production of fresh potatoes is expected to see losses in MY 2016/17, which will likely carry over into MY 2017/18 due to seed potato losses. The potato chip industry estimates a 40,000 - 60,000 MT deficit in chipping potatoes in MY 2016/17. In addition to market access limits on fresh potato imports in Japan, the industry has strong preferences for certain potato varieties for their processing (e.g. “May Queen” and “Dansyaku” for table potato, “Toyoshiro” for chipping, and “Konafubuki” for starch). To meet growing market demand for processed potato products, the chipping industry may increase the production of fabricated potato chips using imported potato flakes.

Producers of other non-frozen potato products have expressed their intent to utilize the available sources of fresh potatoes rather than reformulate their products to utilize imported potato products. The increased competition among the producers of potato products is expected to constrain the availability of fresh table potatoes later in the marketing year. Post expects the consumption of table potatoes to decline to 500,000 MT from MY 2014/2015 levels (more than a 20 percent decrease) given the impacts of this year’s typhoons.

Trade-Imports

The government of Japan limits the import of fresh potatoes to those for chipping based on phytosanitary concerns, and furthermore restricts the origin, periods of import, and the ports approved for importing potatoes (described later in policy section). While the consumption of potato chips is increasing at a rate of one percent per year, planted area and domestic potato production have declined continuously, resulting in increased imports of chipping potatoes reaching 29,794 MT in MY 2015/16 (compared to 22,773 MT in MY 2014/15). Due to anticipated domestic production losses in MY 2016/17, Post forecasts an increase in chipping potato imports to 35,000 MT.



Source: Global Trade Atlas

Trade-Exports

Japan exports only negligible amounts of fresh potato (i.e. 24 MT mainly to other Asian nations). Post forecasts the export amount to be even less in 2016/17 due to lack of domestic supplies.

Policy

Eligible States: Currently, Japan limits the import of U.S. fresh potatoes strictly for use in chip manufacturing. Under the protocol established in 2006, 14 U.S. states were potentially eligible to ship potatoes to Japan under certain conditions, including field designation. The original eligible States were: Arizona, California, Colorado, Florida, Idaho, Maine, Michigan, Minnesota, New Mexico, North Dakota, Oregon, Texas, Washington, and Wisconsin. However, when the market opened, only fields from the state of California had been designated to ship fresh chipping potatoes to Japan. In 2010, after extensive bilateral consultations and successful MAFF on-site audits, fields in the state of Washington were designated for shipping to Japan. In 2012, MAFF also registered Nevada and Montana as eligible to ship to Japan.

Shipping season: Starting in 2012, MAFF extended the shipping season to include the month of July. As a result, the United States can now export potatoes to Japan from February through July.

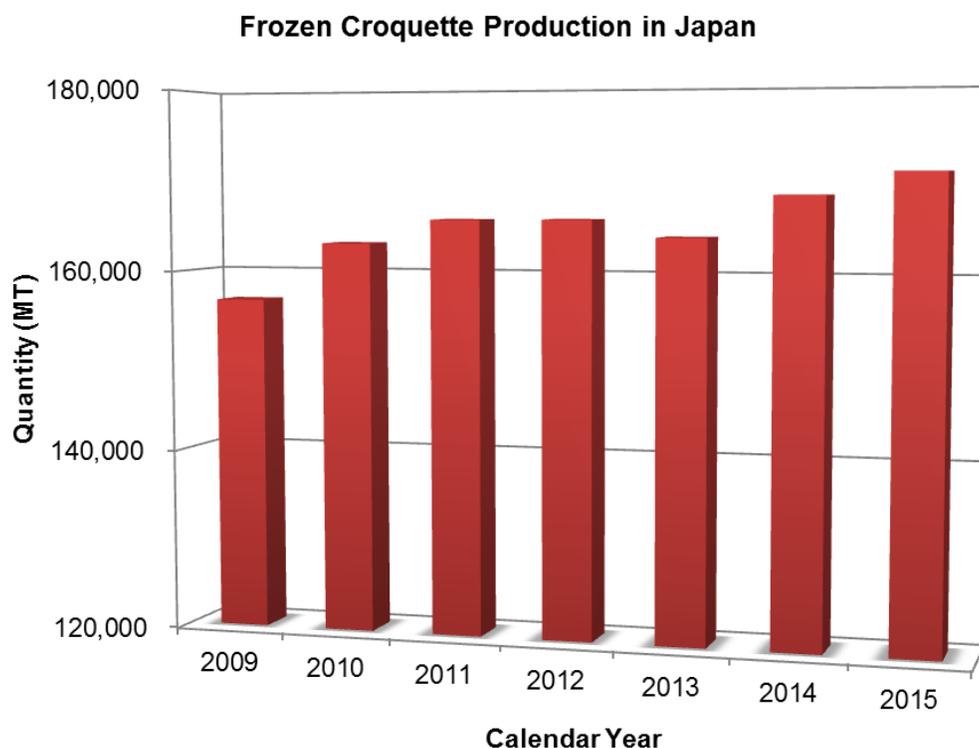
Overland transportation: According to the 2006 import protocol, MAFF did not allow overland transportation of U.S. potatoes from the port to the chipping facilities due to phytosanitary concerns. As a result, only chipping facilities located in the port were allowed to request MAFF approval to import and process U.S. potatoes in Kagoshima and Hiroshima. Unlike the Hiroshima Port, the Kagoshima Port (where the most recently approved facility is located) is a local port that cannot handle large-size vessels. Consequently, U.S. potatoes needed to be loaded onto lighter coastal vessels at the nearest port in Shibushi, which is approximately 100 kilometers east of Kagoshima. As the smaller vessels are not equipped to keep the cargo refrigerated, the eight to nine hour travel time to Kagoshima can cause premature sprouting and adversely affect the quality of the potatoes. Additionally, Japanese chipping manufacturers found this means of transportation extremely inefficient and costly. Thus, chipping manufacturers requested MAFF to allow overland transportation by truck from the Shibushi port directly to the chipping facility. The Shibushi port has the capacity to handle containerized cargo and is equipped with electricity, which allows the potatoes to remain refrigerated. In addition, the shorter overland travel time would reduce the risk of quality deterioration.

In March 2015, MAFF completed its technical review and approved overland transportation subject to the following condition: ‘Overland transportation is allowed only for approved heat processing facility located in port area where port facilities are limited to receive lighters and where large size vessels are unable to berth, therefore, it is considered that importing U.S. potatoes directly from ocean going vessels is impossible.’ This condition applies to the overland transportation between Shibushi and Kagoshima, since the Kagoshima Port facilities are insufficient to receive ocean going vessels at their berths.

Frozen Potato Products

Production

Japan utilized only 80,000 MT of fresh potatoes for frozen potato products in MY 2015/16 (equivalent to 3.3 percent of national fresh potato production). Of that supply, approximately 60 percent (50,000 MT) went to the production of potato croquettes in MY 2015/2016. Potato croquettes, which use not just fresh, but also frozen and dehydrated potatoes, are the leading potato product by volume of all frozen food products manufactured in Japan in 2015. The final production volume of frozen croquettes (after preparing with other ingredients) increased 1.5 percent to 171,122 MT in 2015. Post expects the productions of frozen potato croquettes will continue to increase marginally in coming years given their convenience.



Source: MAFF and Japan Frozen Food Association

Whereas Japanese production of other frozen potato products, including french fries, are small in volume (accounting for 10 percent of total consumption of frozen potato products), their supplies rely heavily on import sources (further discussed in later sections). Given the damage to domestic potato production caused by recent typhoons and resulting difficulties in procuring domestic fresh potatoes, Post lowers the forecast for MY 2016/17 production to 25,000 MT (a 25% decrease).

Frozen Potato Product Data (HS 0710.10 and HS 2004.10):

Frozen Potatoes - Japan Market Begin Year	MY 2014/2015 July 2014	MY 2015/2016 July 2015	MY 2016/2017* July 2016

Production (MT)	32,500	33,500	25,000
Import (MT)	328,800	334,400	375,000
Total Supply (MT)	361,300	367,900	400,000
Domestic Consumption	361,100	367,900	400,000
Export	0	0	0
Total Distribution (MT)	361,300	367,900	400,000

Source: MAFF, Global Trade Atlas, and the Japan Frozen Food Association
Asterisk indicates FAS/Tokyo forecast.

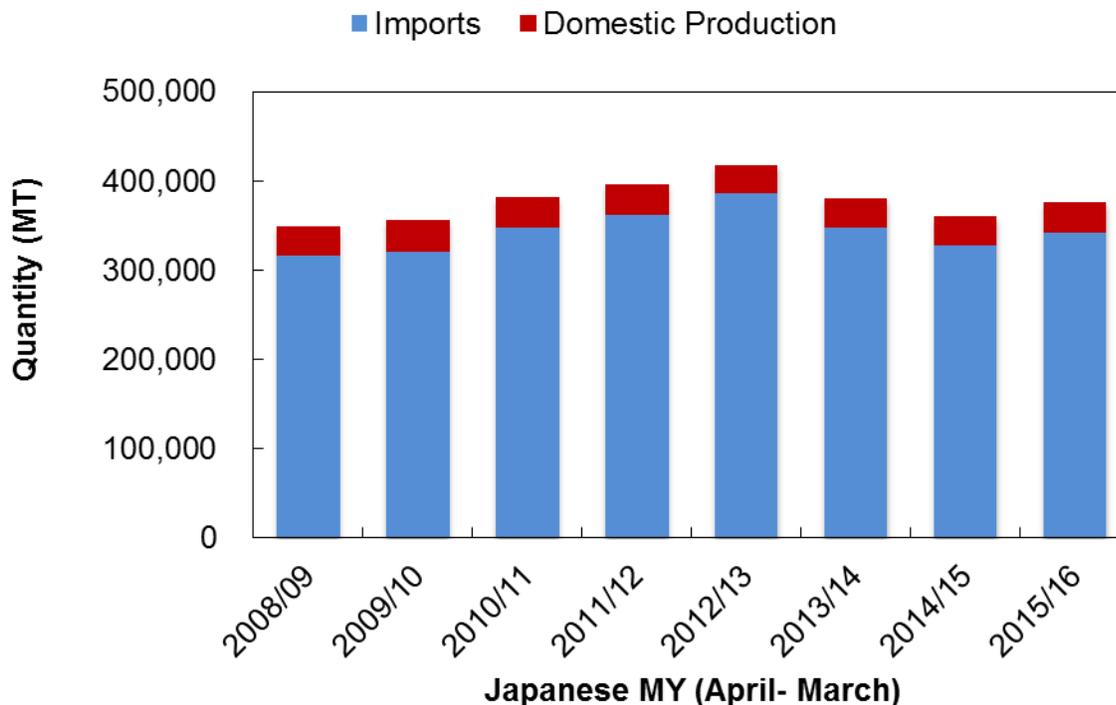
Consumption

The majority of frozen potato products are consumed as french fries at fast food, or quick serve restaurants (QSRs). Hamburger restaurant chains are by far the largest user of frozen french fries. The largest of these chains consumes almost half of all Japanese imports of frozen french fries by itself. Therefore, Japanese consumption of frozen potato products is closely tied to the performance of QSRs. Convenience stores are another outlet for consumption of frozen potato products.

Consumptions of frozen potato products in MY 2015/2016 increased 4.5 percent compared to MY 2014/15, suggesting that the market is now recovering from slow sales. The largest hamburger restaurant chains are expecting strong sales in 2016, which is expected to drive an increase in french fry consumption. Post understands, however, that new pairing options at some QSRs are decoupling the link between sales and volumes of frozen french fries.

Post anticipates that frozen potato products will supplement some of the fresh potato shortage caused by the typhoons. Therefore, Post forecasts a 7 percent increase, to 400,000 MT, in the consumption of frozen potato products in MY 2016/17.

Frozen Potato Consumption in Japan (HS 2004.10 and HS 0710.10)



Source: Japan Frozen Food Association

Trade - Imports:

Nearly 90 percent of frozen potato products consumed in Japan are sourced from overseas, as shown in above chart. Total Japanese imports of frozen potato products (including both HS 2004.10 and HS 0710.10) increased 9 percent to 334,384 MT in MY 2015/16 when compared to the previous MY. Post expects imported frozen potato products to offset up 10 percent (approximately 370,000 MT) of the loss of domestic production in MY 2016/17. In addition, Post expects additional imports of frozen potato products in MY 2017/18 to offset reduced production from damage to seed potatoes in 2016.

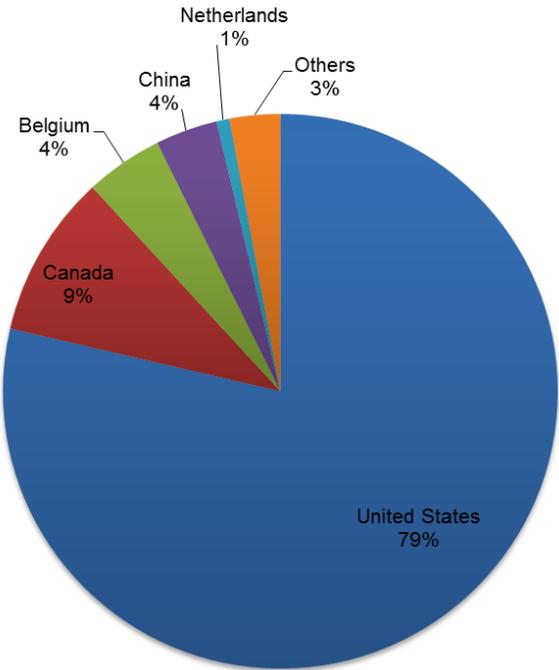
French fries:

Approximately 90 percent of Japanese frozen potato imports are french fries (HS 2004.10). Despite the recovery in the overall consumption of frozen potato products as noted previously, import quantities of french fries have increased only 0.9 % to 308,687 MT in MY 2015/2016. This is partially because many QSRs now provide customers with multiple options for side dishes, and french fries are no longer the only choice.

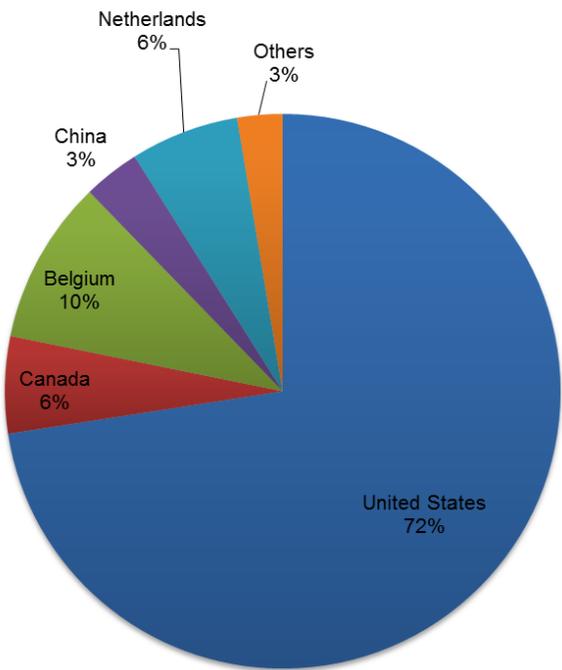
The United States is the largest supplier for of imported frozen french fries. Although the United States still remains the largest exporter of frozen french fries to Japan, the market share of the United States dropped from 79 percent to 72 percent in the last 3 years. QSR suppliers shifted some of their sourcing

from the United States to Europe during the West Coast Port labor dispute, resulting in market gains for Belgium and the Netherlands. Post, however, anticipates that this market share will be regained partially by the United States in MY 2016/17 based on poor potato crops in major production areas in Europe.

**Sources of French Fries in Japan
MY 2012/2013**



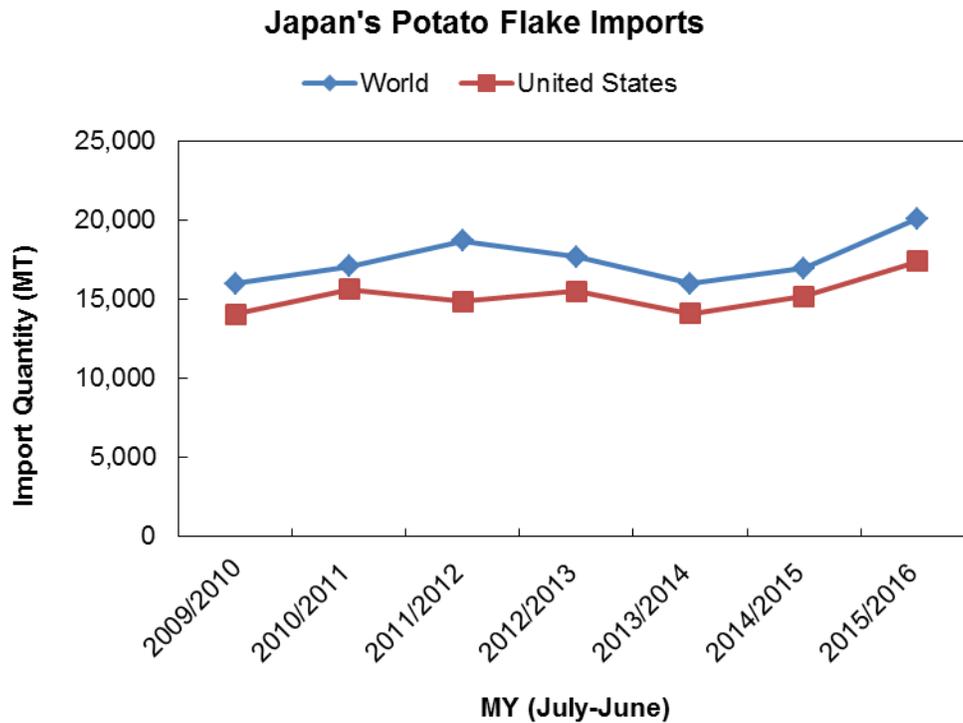
**Sources of French Fries in Japan
MY 2015/2016**



Source: Global Trade Atlas

Potato flakes:

Japanese imports of potato flakes are primarily used for snack food manufacturing, especially for fabricated potato chips. The United States is the leading supplier of potato flakes, and Japan imported 18 percent more in MY 2015/16 (20,104 MT) compared to MY 2014/15 (16,953 MT). Chipping companies are anticipated to increase the production of fabricated potato chips due to fresh potato supply constraints in MY 2016/17. Furthermore, the biggest chipping company in Japan moved into fabricated potato chips for the first time in 2016. Therefore, Post forecasts a large increase in potato flake imports in MY 2016/2017 (25,000 MT, up 20 percent from the previous MY).



Source: Global Trade Atlas

Trade - Exports:

Japan exported only negligible amounts of frozen potato products to Taiwan for sale through local Japanese grocery stores in MY 2015/16. Post anticipates this trend continues in MY 2016/17.

Market Trends

Imports of french fries grew year on year over the last decade supported by sales promotions at QSRs and family restaurants. However, imports decreased 10 percent in MY2014/15 due to slow sales at fast food chains, coupled with import disruptions caused by the West coast port disputes. Although supply chains have been restored, the consumption has yet to show recovery. This is partially because many QSRs now provide customers with multiple options for side dishes, and french fries are no longer the only choice. Nevertheless, if the QSRs' recoveries continue, consumption of french fries is still anticipated to increase further in MY 2016/17.

Some U.S. french fries market share has been replaced by European sources, particularly Belgium and Netherlands, during the import disruption. "European fried potatoes" were introduced to the market as new products emphasizing the difference from U.S. potatoes, and have attracted consumer interest. Although U.S. french fries are still the benchmark in Japan with the dominant market share, European fried potatoes gained recognitions and established positions in Japanese french fry market.

Policy

In response to the typhoons and their damages, the government of Japan has decided to provide extraordinary financial support for recovery.¹ This federal support together with other pre-existing recovery support schemes run by local government and agencies allow farmers low interest loans.

Certified starch potato farmers can receive subsidies furnished by a price-control compensation scheme. Based on the "Act on Price Adjustment of Sugar and Starch", the Agriculture & Livestock Industries Corporation imposes price-adjustments on imported corn and other starches on behalf of the GOJ.² Under this scheme, approved farmers received JPY 12,840 (approximately USD 120) per ton of starch potatoes for MY 2015/16. In addition, a premium or penalty is made based on quality (determined by the percent of starch in the potato). This price adjustment is outside of the tariff system and hence will continue after ratification of the Trans-Pacific-Partnership (TPP).

Ratification of TPP will immediately eliminate the current tariff of 8.5 percent for fresh and seed potatoes. Tariffs for frozen and processed potatoes will also be zero, but the reductions will vary by types of products. The below table describes the changes in respective tariffs with the ratification of TPP.

Changes to Potato Tariffs if TPP is ratified

Category	Product Tariff Line (HS Code)	Current Tariff (Percent)	Terms of TPP Agreement
Fresh / Chilled	Seed Potatoes 0701.10.000	3.0	0 percent immediately
	Other than Seed 0701.90.000	4.3	0 percent immediately

¹ Information on the program is available in Japanese at the following GOJ Cabinet websites:

http://www.bousai.go.jp/kohou/oshirase/pdf/20160916_01kisyu.pdf

<http://www.bousai.go.jp/taisaku/gekijinhukko/>

² Information on the "Act on Price Adjustment of Sugar and Starch" is available in Japanese at the MAFF website.

http://www.maff.go.jp/j/seisaku_tokatu/antei/keiei_antei.html

Flake / Mashed	Potato Flour 1105.10.000	20.0	0 percent after 11 years	
	Potato Flakes 1105.20.000	20.0	0 percent after 6 years	
	Mashed Potatoes 2005.20.100	13.6	0 percent after 11 years	
Frozen	Uncooked 0710.10.000	8.5	0 percent after 6 years	
	French Fries 2004.10.100	8.5	0 percent after 4 years	
	Mashed Potatoes 2004.10.210	13.6	0 percent after 6 years	
	Other 2004.10.220	9.0	0 % after 6 years	
Others	Dried	Dehydrated 0712.90.050	12.8	0 percent after 6 years
	Processed	In airtight container 2005.20.210	12.0	0 percent after 6 years
		Sugar added 1905.90.314	9.0	0 percent after 6 years
		Not sugar added 1905.90.314	9.0	0 percent after 6 years
		Other 2005.20.220	9.0	0 percent after 8 years

Source: MAFF

** all duties are charged on a CIF basis*