Required Report - public distribution

Date: 10/19/2016
GAIN Report Number: JA6045

Japan

Dairy and Products Annual

2016 Market Situation Summary and 2017 Outlook

Approved By:
Evan Mangino, Agricultural Attaché

Prepared By:
Kakuyu Obara, Agricultural Specialist

Report Highlights:
Higher yields have improved Japanese milk production in 2016, but weather-related impacts could constrain potential growth in the fourth quarter and beyond. Soaring Japanese beef cattle feeder prices are limiting replacement heifer production through greater use of *wagyu* genetics in dairy management plans. 2016 Japanese imports and consumption outpace record 2015 levels, with sharply expanding, price-competitive imports from European Union suppliers eroding U.S. market share. Increased Japanese butter production and extraordinary butter import volumes should restore balance and preclude perceived butter shortages during the remainder of 2016.

Keywords: Japan, JA6045, Dairy

Executive Summary:
An expanded crop of highly productive young milk cows in Hokkaido has more than compensated for further reductions in milk cow numbers in the rest of Japan and a decline in the national dairy cattle herd. Continued contractions in the dairy industry outside of Hokkaido have created a growing deficit in fluid use milk for drinking in the rest of Japan, particularly in urban population centers. As beef cattle feeder calf prices across all three major categories (i.e., *wagyu*, F-1 cross-bred, and Holstein steers) have continued skyward, dairy operators have expanded utilization of *wagyu* genetics in their dairy management programs at the cost of significantly diminishing prospects for the next generation of milk cows.

Following two successive years of highly visible butter 'shortages,' in which retail shelves were empty during the peak November / December Japanese baking season, the Government of Japan announced its intention to import record butter volumes in Japanese fiscal year (JFY) 2016, which ends on March 31, 2017. Coupled with reduced demand for fresh cream and markedly lower prices for imported cheese, Japanese dairy manufacturers have allocated additional factory use milk towards production of butter and non-fat dry milk (NFDM) in 2016. Accordingly, Post does not anticipate a third successive year of butter shortages in 2016. 2016 Japanese NFDM production has risen alongside growing butter volumes, satisfying a significantly higher level of Japanese ingredient demand in 2016 and sharply curbing imports. Post projects that the Japanese supply-demand balance for butter and NFDM should return to equilibrium in 2017.

2016 Japanese importation and total utilization of natural cheeses will break record highs set in 2015. Higher volumes of lower-priced European Union (EU) origin natural cheese continue to outcompete U.S. natural cheese in the Japanese market, driving imports of U.S. natural cheese sharply lower for a second consecutive year. Adjustments in global supplies of milk and dairy products may signal a modest recovery of global cheese prices, setting a floor for natural cheese price offers in 2017.

Commodities:
Dairy, Milk, Fluid
Dairy, Butter
Dairy, Milk, Nonfat Dry
Dairy, Cheese

Production, Supply and Distribution Data:

Fluid Milk PS&D Table

Dairy, Milk, Fluid	2015		2016		2017	
Market Begin Year	Jan 2015		Jan 2016		Jan 2017	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Cows In Milk	750	750	745	752	0	750
Cows Milk Production	7375	7379	7340	7420	0	7400
Other Milk Production	0	0	0	0	0	0
Total Production	7375	7379	7340	7420	0	7400
Other Imports	0	0	0	0	0	0
Total Imports	0	0	0	0	0	0
Total Supply	7375	7379	7340	7420	0	7400
Other Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
Fluid Use Dom. Consum.	3920	3935	3900	3965	0	3955
Factory Use Consum.	3400	3390	3385	3400	0	3390
Feed Use Dom. Consum.	55	54	55	55	0	55
Total Dom. Consumption	7375	7379	7340	7420	0	7400
Total Distribution	7375	7379	7340	7420	0	7400
(1000 HEAD) ,(1000 MT)						

Butter PS&D Table

Dairy, Butter	2015		2016		2017	
Market Begin Year	Jan 2015		Jan 2016		Jan 2017	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	15	15	18	19	0	22
Production	64	65	63	67	0	65
Other Imports	16	16	17	12	0	11
Total Imports	16	16	17	12	0	11
Total Supply	95	96	98	98	0	98
Other Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
Domestic Consumption	77	77	77	76	0	76
Total Use	77	77	77	76	0	76
Ending Stocks	18	19	21	22	0	22
Total Distribution	95	96	98	98	0	98
(1000 MT)						

Non Fat Dry Milk PS&D Table

Dairy, Milk, Nonfat Dry	2015		2016		2017	
Market Begin Year	Jan 2015		Jan 2016		Jan 2017	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	35	35	50	53	0	55
Production	127	129	125	132	0	125
Other Imports	53	53	35	33	0	32
Total Imports	53	53	35	33	0	32
Total Supply	215	217	210	218	0	212
Other Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
Human Dom. Consumption	140	139	140	137	0	140
Other Use, Losses	25	25	25	26	0	25
Total Dom. Consumption	165	164	165	163	0	165
Total Use	165	164	165	163	0	165
Ending Stocks	50	53	45	55	0	47
Total Distribution	215	217	210	218	0	212
(1000 MT)						

Cheese PS&D Table

Dairy, Cheese	2015		2016		2017	
Market Begin Year	Jan 2015		Jan 2016		Jan 2017	
Japan	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	15	15	15	15	0	15
Production	42	46	42	45	0	45
Other Imports	249	249	250	265	0	265
Total Imports	249	249	250	265	0	265
Total Supply	306	310	307	325	0	325
Other Exports	1	0	0	0	0	0
Total Exports	1	0	0	0	0	0
Human Dom. Consumption	290	295	292	310	0	310
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	290	295	292	310	0	310
Total Use	291	295	292	310	0	310
Ending Stocks	15	15	15	15	0	15
Total Distribution	306	310	307	325	0	325
(1000 MT)						

2016 Situation Summary and Outlook

Fluid Milk:

Improved Hokkaido Production Stabilizes National Milk Supply

The 2016 outlook for total national milk production and utilization looks set to rise above 2015 levels, in contrast to the contraction anticipated in Post's 2015 forecasts (see JA5032, dated October 15, 2015). The central factor driving higher production appears to be the increased number of young Hokkaido milk cows demonstrating higher productivity traits. Post anticipated the entry of this expanded crop of young, Hokkaido milk cows in its 2015 analysis, but Post had not anticipated that a related increase in per cow productivity in Hokkaido could offset the continued decline in milk cow numbers in the rest of Japan (see Tables 10, 11, and 12).

Through the first eight months of 2016, total national milk production totaled 5.019 million metric tons (MMT), slightly outpacing 2015 levels. A two percent expansion in the number of milk cows, coupled with higher per-cow productivity, helped drive production in Hokkaido up three percent to 2.662 MMT, despite a slight decline in the total Hokkaido dairy herd. In the rest of Japan, a near across the board contraction in dairy cattle numbers and flat productivity growth have resulted in a one percent decrease in milk production, falling to 2.357 MMT (see Tables 10, 11, and 12).

The total number of dairy farms continued to decline across the country in 2016 (Hokkaido down three percent to 6,490 farms, and the rest of Japan down five percent to 10,510 farms) as aging dairy farmers continue to exit the industry without successors. The average number of cows per farm across Japan appears to be continuing along its gradual upward trajectory (up two percent in Hokkaido to 121 head; up one percent in the rest of Japan to 53 head) as the industry continues to consolidate with the support of government subsidy programs to promote necessary infrastructure investments.

As fluid milk production in the rest of Japan has fallen, and the demand for fluid use milk products (including fermented milk beverages) has remained relatively firm through August, Hokkaido producers have expanded shipments of fluid use milk for drinking to the rest of Japan (up 17 percent to 0.218 MMT), particularly to urban centers like Tokyo and Osaka. With higher prices for fluid use milk (relative to factory use offers) and lower direct subsidy payment rates for processors (down two percent in JFY 2016 to 15.28 yen/kg for natural cheese production; down almost two percent JFY 2016 to 12.69 for designated dairy commodity production), a large volume of Hokkaido's expanded production has been diverted into these fluid use markets rather than pushing up production of factory use milk dairy products. Through August 2016, fluid use milk consumption is up two percent over 2015 levels (to 2.650 MMT), while factory use milk consumption is up only marginally to 2.334 MMT (See Tables 1, 2 and 3).

Hot and humid summer weather coupled with an unprecedented string of four typhoons that delivered torrential rains over much of Hokkaido in August and September 2016 are expected to negatively impact Hokkaido's fourth quarter milk production (see JA6031, dated September 30, 2016). However, even after taking those factors into account, Post projects 2016 total national milk production to increase slightly to **7.42 MMT**, with fluid use milk up less than one percent to **3.965 MMT**, factory use milk marginally higher at **3.400 MMT**, and feed use at **0.055 MMT**.

Through August 2016, production of fresh cream, a major source of fluid milk demand in recent years, fell three percent (to 71,637 MT) relative to 2015 levels, driven in part by convenience stores scaling back offerings of small-sized sweets, which had utilized large volumes of fresh cream. Over that same period, national production of butter and non-fat dry milk (NFDM) rose six percent (to 48,751 MT) and two percent (to 90,441 MT) respectively (see Table 4).

Butter:

Increased 2016 Supplies Restore Balance Butter Demand, Push Up Stocks

The recovery of Japanese butter production that began in 2015 continued through the first eight months of 2016, rising another six percent to 48,751 MT (see Table 4). This expansion comes on top of the 13,000 MT of butter that Japan's Agriculture & Livestock Industries Corporation (ALIC) committed to importing (i.e., 7,000 MT from current access commitments and 6,000 MT from additional import tenders) through the end of 2016. While rising production and robust imports through Japan's state owned enterprise have bolstered total supplies, domestic demand appears to be slackening, as ALIC estimates total butter utilization over the first eight months of 2016 has fallen three percent (to 45,600 MT) from 2015 levels. Household butter consumption is up four percent (to 303 grams per household) through August 2016, maintaining strong demand for Japanese-origin, retail packages of butter. However, declining demand from the confectionary and baking sectors, evident in the recent moderation of wholesale prices, has more than outweighed retail sector growth (see Table 7). Combined, these market dynamics have driven August 2016 month-ending butter stocks up 42 percent over 2015 levels to 28,389 MT, equivalent to more than three months' supply at peak monthly utilization levels (see Table 6).

Despite the reduced forecast for fourth quarter milk production in Hokkaido (see above) further tightening factory use milk supplies, solid retail demand should help to push Japan's 2016 total butter production higher for the second year in a row to **67,000 MT** (up three percent from 2015, but still below 2013 levels). Declining utilization of fluid milk for cream (down two percent through August 2016 to 0.851 MMT) and of factory use milk for natural cheese (down five percent through August 2016 to 0.305 MMT) reflect the reallocation of limited milk production towards butter and non-fat dry milk (NFDM). With 2016 total imports at roughly **12,000 MT**, Post projects year ending stocks to rise 16 percent over 2015 levels to **22,000 MT**.

For JFY 2016, Japan fulfilled its current access commitments designated dairy commodity imports (137,200 MT milk weight equivalent) by importing 7,000 MT of butter, 2,000 MT of NFDM, 4,500MT of edible whey, 330 MT of butter spread and 200 MT of butter oil (see Table 13). Through the end of calendar year 2016, in addition to the 7,000 MT of current access butter volumes, Japan will import approximately 5,000 MT of the 6,000 MT specified in the May 2016 additional import announcement. Japan will import the remaining 1,000 MT of the May 2016 announcement volume as well as a further 4,000 MT of butter (announced at the end of September 2016) during the first quarter of calendar year 2017 (which is the final quarter of JFY 2016). The second additional butter import announcement in September 2016 came ahead of Japan's peak November/December baking season and fresh on the heels of the revised fourth quarter outlook for Hokkaido milk production. Following two years of highly visible public criticism related to perceived butter shortages in major urban centers, the Government of Japan took this additional measure to ensure that more than sufficient butter supplies will be on hand through the end of JFY 2016.

NFDM:

Ample Stocks, Rebounding Butter Production Reduce 2016 NFDM Imports

Directly tied to expanding domestic butter production, Japanese NFDM production increased two percent through August 2016 to 90,441 MT (see Table 4). With substantial year-beginning

stocks (up 51 percent over 2015 to 53,000 MT), higher production, 4,000 MT of NFDM arriving in 2016 through current access (2,000 MT), and additional imports announced in May 2016 (2,000 MT), ALIC appears to have taken sufficient measures to meet domestic demand and to halt the upward trend in NFDM wholesale prices (see Table 7). ALIC estimates ingredient demand for NFDM has remained sluggish through August 2016, driven in part by reduced production of processed milk and milk beverages, driving August month-ending stocks up 10 percent over 2015 levels to 55,594 MT (see Note 1 and Table 6).

> Note 1: ALIC's estimates for NFDM demand do not include special tariff rate quota (TRQ) imports for national school lunch programs nor for animal feeds (see Table 5).

As Hokkaido's fourth quarter milk production outlook is reduced, anticipated tightening of factory use milk supplies over the same period should lower the ceiling on increased production of butter and NFDM in 2016. Post projects Japanese 2016 total NFDM production modestly higher at **132,000 MT** (up two percent over 2015), with total imports down nearly forty percent from 2015 to around **33,000 MT** (4,000 MT through current access/additional imports by ALIC, 26,000 MT through the TRQ for animal feed and the rest to be allocated across the TRQs for the national school lunch program and others. Total NFDM consumption is projected down one percent in 2016 to **137,000 MT** (excluding the TRQ for animal feed), leaving year-ending stocks modestly higher at **55,000 MT.**

Cheese:

Global Glut Pushes Price Offers Down, EU Exports to Japan to Set Record High in 2016
After rebounding in 2015 (up seven percent to a record high of 249,285 MT), Japan's total cheese imports have continued to expand through the first eight months of 2016. As overall demand for cheese remains strong, as global price offers have continued to fall, and as the Yen has remained relatively strong against cheese-supplying-country currencies, Japanese imports through the first eight months of 2016 have climbed five percent over record-high 2015 levels to 172,732 MT (see Table 9). According to market sources, sales of natural cheeses for direct consumption (mainly from EU suppliers) and of shredded cheese (mostly from U.S., Oceania and EU suppliers) for the pizza industry, bakery sector, processed food industry, and ready-to-eat foods have been strong, while intense price competition has driven importers' supply sourcing decisions.

Following a substantial 49 percent year-on-year increase in 2015, continued abundant supplies of competitively priced cheeses have helped to drive Japanese imports of EU-origin cheeses up another 26 percent through the first eight months of 2016 to 47,626 MT. Persistent low milk prices in the EU region in the wake of the milk quota system abolishment in March 2015, the continued Russian ban on a variety of EU-origin agricultural products (including cheeses and scheduled to continue until July 2017), and a relatively weaker Euro (in part due to "Brexit"-related economic uncertainty) have contributed to the significant expansion of EU-origin cheeses in the Japanese market through August 2016. The Netherlands (up 19 percent to 12,916 MT), Germany (up 20 percent to 8,763 MT), Denmark (up 37 percent to 8,414 MT), France (up 17 percent to 6,131 MT) and Ireland (up 104 percent to 2,907 MT) have collectively

surpassed the United States and New Zealand, moving the EU into position as Japan's second-largest supplier (second only to Australia).

As imports of Australian natural cheese has remained roughly flat (at 59,242 MT) and imports of New Zealand natural cheese has expanded by seven percent through August 2016 to 42,254 MT (largely on lower New Zealand milk prices, lower global prices for butter and NFDM, and earlier stagnation of Chinese demand for cheese), EU gains in market share have largely come at the expense of U.S. suppliers. As EU and Oceania have expanded their shipments to Japan through the first eight months of 2016, Japanese imports of U.S. cheese in 2016 have fallen 22 percent (to 20,581 MT) following a 27 percent annual contraction in 2015. Despite a significant accumulation of U.S. cheese stocks and significantly lower domestic prices for milk and cheese, U.S. cheese export offers to Japan have not been as competitive as European and Oceania offers through the first eight months of 2016. According to industry sources, prices for U.S. natural cheese for shredding (a major source of U.S. cheese export growth in recent years) have remained relatively high, driving Japanese traders towards lower-priced offers from less-traditional suppliers.

Steady Japanese demand for processed cheese continued to drive utilization of the duty free quota for imported natural cheese for blending, comprising nearly 25 percent of the total imports from Oceania (New Zealand up slightly to 13,838 MT; Australia up four percent to 11,215 MT). The overall cheese import dynamics through August 2016 are reflected within the duty free quota for imported natural cheese for blending, where EU suppliers like Germany (up 19 percent to 1,446 MT) and Ireland (up 40 percent to 911 MT) expanded their share at the expense of the United States (down 55 percent at 2,286 MT). In JFY 2016, Japan allocated 62,600 MT for the duty free quota for imported natural cheese for blending, which requires Japanese cheese manufactures to blend Japanese domestic natural cheese with imported natural cheese at a 1:2.5 ratio to produce processed cheese products.

> Note 2: January – August 2016 breakdown of Japanese natural cheese imports: duty free quota for blending down six percent to 30,686 MT; fresh cheese down six percent to 57,394 MT; grated/powdered cheese down 22 percent to 2,095 MT; blue cheese down five percent to 704 MT; and "other" (including semi-hard and hard types for direct consumption and for shredding) up 21 percent to 76,919 MT.

The total volume of Japanese factory use milk for natural cheese production fell seven percent in 2015 to 466,069 MT, resulting in Japanese 2015 total natural cheese production of 46,000 MT. Over the first eight months of 2016, Japanese factory use milk for natural cheese production has fallen an additional five percent to 305,368 MT. With ample supplies of lower priced, imported natural cheeses and greater utilization of limited supplies of factory use milk for butter/NFDM production, Post forecasts Japanese 2016 total natural cheese production to contract moderately to **45,000 MT**. Meanwhile, though still small in volume, Japanese production of natural cheese for direct consumption has grown five percent over the first eight months of 2016, reaching 15,048 MT, as Japanese manufacturers continue to focus their efforts on producing domestically branded fresh, soft-type cheeses (such as camembert) for retail distribution.

Following Japan's 2015 and early 2016 cheese import surge, Post expects the anticipated recovery in global cheese prices in the fourth quarter will moderate the pace of imports through the end of 2016. However, year-on-year import volumes are expected to climb six percent to

265,000 MT, surpassing the record high set in 2015. EU suppliers are expected to capture a record share of the market in 2016, collectively supplying more than 70,000 MT (equivalent to better than 26 percent market share) for the first-time ever. Post projects Japanese 2016 total cheese consumption to also set a new record, growing five percent to **310,000 MT**.

2017 Outlook

Fluid Milk:

Japan Milk Production Projected Down as Beef Demand Diverts Replacement Stock

The long-term effects on the condition of Hokkaido dairy cattle, as a result of the 2016 typhoon season, could have a significant impact on Japanese total dairy production in 2017. With limited scope for expanding production outside of Hokkaido, and with aging operators across Japan continuing to exit from the industry without successors, Post anticipates the recent downward trend in nation-wide milk production to continue in 2017. Accordingly, Hokkaido producers will need to continue to expand their production to forestall the possibility of a fluid milk supply deficit in 2017.

Anticipating lingering negative impacts from the 2016 typhoon season, Post is projecting flat growth in Hokkaido milk production and marginally lower total national milk production at **7.400 MMT** in 2017. Lower global feed grain prices and a relatively strong Yen could keep down the cost of formula mixed feeds and imported fodder in 2017 and improve dairy profitability. Continued strong demand for Japanese domestic beef has pushed beef cattle feeder calf prices up across the board, with monthly average *wagyu* feeder calf prices nearly doubling since 2012 (see JA6019 Table 9).

Japanese dairy operators have benefitted from rising feeder calf prices by expanding the use of *wagyu* genetics in their artificial insemination programs, increasing production of so-called 'F1' cross-bred offspring for the beef cattle feeding industry. As a result of the sustained increase in beef cattle feeder calf prices over the last few years, the Japanese dairy industry is entering 2017 with replacement heifer inventories down seven percent (Hokkaido down six percent to 277,100 head and the rest of Japan down seven percent to 121,200 head) (See Tables 10 and 12). According to industry sources, live cattle auction prices for first-bred replacement heifers have skyrocketed in 2016. At an October 17, 2016 dairy cattle auction in Hokkaido, the average price for first-bred heifers topped 830,000 Yen (approximately $8,250), nearly 50 percent above 2015 average prices and well above prices paid for high quality black *wagyu* feeder calves at an auction observed by Post in September 2016. While some dairy operators are reportedly using sexed semen to effectively manage their replacement herd, others are facing mounting difficulty securing replacement heifers at such extraordinary prices.

Post projects 2017 total national fluid use milk utilization to fall slightly to **3.955 million MT**. With the possibility of greater volumes of Hokkaido fluid use milk for drinking delivered to urban centers across the rest of Japan in 2017, Post anticipates approximately **3.390 million MT** of factory use milk will remain for processing (down less than one percent from 2016).

Butter and NFDM:

Butter, NFDM Markets Could Return to Balance in 2017
Anticipating sufficient year-ending butter stocks heading into 2017and tighter factory use milk supplies persisting through 2017, Post expects Japanese domestic butter and NFDM production to contract modestly from projected 2016 levels. Post projects Japanese 2017 butter production down three percent to **65,000 MT**. Assuming roughly flat demand for butter in 2017 (76,000 MT), Japan would need to import **11,000 MT** of butter in calendar year 2017 (5,000 MT remaining from JFY 2016 additional imports to be delivered in the first quarter of calendar year 2017 as well as 6,000 MT through JFY 2017 current access commitments) to maintain the supply-demand balance without reducing 2017 year-ending stocks below **22,000 MT**. Barring an unanticipated increase in demand for butter, or a reallocation of JFY 2017 current access commitments away from butter and toward other designated dairy commodities, Post does not foresee additional butter imports in 2017.

Post projects that ample 2016 year-ending stocks and relatively weak ingredient market demand for NFDM will result in 2017 imports falling slightly to **32,000 MT** as Japanese 2017 total national utilization remains flat at 140,000 MT, excluding volumes imported under the TRQ for animal feed. Alongside lower butter production, Post projects Japanese 2017 NFDM production down five percent to **125,000 MT** with current access import volumes in calendar year 2017 at **3,000 – 4,000 MT**.

Cheese:

Import Price Increases Could Dampen Import, Consumption Growth
Considerable uncertainty in global dairy markets could continue into 2017 as major milk producers (including the EU, Oceania, and the United States) continue to adjust production levels in response to the accumulation of significant surplus dairy product stocks over the last two years. Australian milk production is projected modestly lower in 2017 following flooding in certain regions and production adjustments in response to 2016 global dairy prices. EU measures to reduce total milk and dairy production announced in September 2016 and U.S. measures to utilize accumulated cheese stocks for domestic feeding programs announced in October 2016 should also contribute to a moderate recovery in global cheese prices in 2017.

Post projects Japanese 2017 total natural cheese imports and consumption unchanged from projected 2016 levels at **265,000 MT** and **310,000 MT** respectively. Post projects that modest increases in price offers for imported cheeses could dampen further import and consumption growth in 2017.

Supplemental Tables:

Table 1: Japanese Household Consumption of Milk and Dairy Products
(two or more person household)

Unit: JP Yen

	Bread	Milk	Milk Powder	Yogurt	Butter	Cheese	Confec-tionary	Coffee Beverage	Lactic Acid Bacterial Drinks	Milk Beverage	Mar-garine	Ice Cream and Sherbet*
2015												
Jan.	2,399	1,124	71	983	66	393	6,326	244	274	107	65	401
Feb.	2,357	1,129	63	964	85	394	6,704	233	284	97	74	345
Mar.	2,688	1,251	59	1,042	88	438	7,639	303	307	122	72	480
Apr.	2,625	1,262	55	1,036	74	405	6,330	324	316	137	72	590
May	2,620	1,333	49	1,031	78	412	7,000	426	302	133	68	928
Jun.	2,525	1,321	39	1,004	83	402	6,206	455	314	140	66	894
Jul.	2,549	1,409	38	1,020	68	382	6,732	520	355	153	62	1,257
Aug.	2,513	1,416	38	984	68	380	7,850	508	323	151	59	1,384
Sept.	2,464	1,335	44	1,016	80	411	6,391	417	300	144	65	768
Oct.	2,606	1,314	52	1,054	84	419	6,261	383	301	143	67	603
Nov.	2,569	1,243	41	987	84	423	6,371	327	298	136	65	478
Dec.	2,593	1,297	58	1,013	101	477	9,216	313	328	131	64	581
2016												
Jan.	2,512	1,146	50	1,056	75	399	6,725	282	302	121	56	464
Feb.	2,521	1,190	54	1,116	98	416	7,038	267	307	120	65	397
Mar.	2,740	1,266	63	1,180	93	434	7,758	328	342	127	64	493
Apr.	2,670	1,245	70	1,155	72	418	6,567	359	327	129	58	617
May	2,668	1,339	61	1,205	73	449	6,972	431	327	147	58	890
Jun.	2,508	1,322	58	1,158	78	434	6,179	431	355	137	61	883
Jul.	2,509	1,375	64	1,148	74	406	6,885	506	357	154	53	1,292
Aug.	2,401	1,437	45	1,086	69	406	7,778	507	370	160	55	1,387
2012	28,281	15,266	679	10,270	906	4,284	77,778	3,707	3,558	1,336	888	7,592
2013	27,973	15,211	594	10,856	929	4,376	78,949	4,004	3,441	1,380	856	8,116
2014	29,212	15,176	643	11,458	995	4,721	80,129	4,159	3,503	1,469	770	8,007
2015	30,508	15,434	607	12,134	959	4,936	83,026	4,453	3,702	1,594	799	8,709
% Chg.	4%	2%	-6%	6%	-4%	5%	4%	7%	6%	9%	4%	9%
Jan. - Aug., 2015	20,276	10,245	412	8,064	610	3,206	54,787	3,013	2,475	1,040	538	6,279
Jan. - Aug., 2016	20,529	10,320	465	9,104	632	3,362	55,902	3,111	2,687	1,095	470	6,423
% Chg.	1%	1%	13%	13%	4%	5%	2%	3%	9%	5%	-13%	2%

*Ice Cream and Sherbet are also included in Confectionary Data

Source: Ministry of Internal Affairs and Communications (Statistics Bureau)

	Milk (liter)	Powdered Milk (gram)	Cheese (gram)	Butter (gram)	Margarine (gram)	Bread (gram)
2015						
Jan.	5.97	37	237	33	87	3,493
Feb.	5.74	31	240	41	101	3,668
Mar.	6.28	29	263	42	97	4,121
Apr.	6.2	28	230	36	98	3,882
May	6.68	24	244	38	91	4,038
Jun.	6.76	18	224	40	89	3,848
Jul.	7.11	17	224	32	84	3,763
Aug.	7.06	18	228	31	74	3,564
Sept.	6.71	21	231	37	87	3,834
Oct.	6.62	24	245	39	92	3,735
Nov.	6.16	22	254	41	91	3,839
Dec.	6.34	23	282	48	84	3,859
2016						
Jan.	5.9	22	228	36	76	3,693
Feb.	6.05	23	234	46	85	3,694
Mar.	6.35	34	264	46	94	3,961
Apr.	6.25	33	252	36	81	3,978
May	6.61	29	256	35	76	3,991
Jun.	6.6	25	262	37	84	3,767
Jul.	7.29	26	238	35	71	3,833
Aug.	7.45	21	246	33	70	3,560
2012	81	362	2,760	504	1,255	44,820
2013	80	305	2,843	503	1,230	44,935
2014	79	309	2,864	512	1,156	44,931
2015	78	292	2,902	458	1,075	45,644
% Chg.	-2%	-6%	1%	-11%	-7%	2%
Jan. - Aug., 2015	52	202	1,890	293	721	30,377
Jan. - Aug., 2016	53	213	1,980	304	637	30,477
% Chg.	1%	5%	5%	4%	-12%	0%

Source: Ministry of Internal Affairs and Communications (Statistics Bureau)

Table 2: Government Subsidy Payment and Eligible Milk Quota for Factory Use

For Factory Use Fluid Milk (Designated Dairy Commodities)			
	Unit Subsidy Payment		Eligible Volume
	Yen/Kg.	Type	Million MT
JFY 2009	11.85	direct payment	1.95
JFY 2010	11.85	direct payment	1.85
JFY 2011	11.95	direct payment	1.85
JFY 2012	12.20	direct payment	1.83
JFY 2013	12.55	direct payment	1.81
JFY 2014	12.80	direct payment	1.80
JFY 2015	12.90	direct payment	1.78
JFY 2016	12.69	direct payment	1.78
For Factory Use Fluid Milk (Natural Cheese)			
JFY 2014	15.41	direct payment	0.52
JFY 2015	15.53	direct payment	0.52
JFY 2016	15.28	direct payment	0.52

Source: ALIC Monthly

Table 3: Japanese Utilization of Fluid Milk for Drinking Milk Products

Unit: 1,000 Kilo Liters

	2013	2014	2015	% Chg.	2015	2016	% Chg.
	Jan/Dec	Jan/Dec	Jan/Dec		Jan/Aug	Jan/Aug	
Total Drinking Milk Products	3,507	3,456	3,456	0%	2,283	2,305	1%
Regular Milk	3,031	2,989	3,005	1%	1,983	2,010	1%
Processed Milk	476	468	451	-4%	300	295	-2%
Milk Beverages	1,367	1,330	1,306	-2%	878	832	-5%
Fermented Milk	1,003	1,001	1,055	5%	704	751	7%
Lactic Acid Bacteria Drinks	157	146	148	1%	105	97	-7%

Note: Processed Milk: low fat, high fat, vitamin and mineral fortified, calcium enriched
Milk Beverages: flavored milk (coffee and fruits flavored)
Fermented Milk: Yogurt etc.
Source: ALIC Monthly

Table 4: Japanese Production of Dairy Products

Unit: Metric Ton

	2013	2014	2015	% Chg.	2015	2016	% Chg.
	Jan/Dec	Jan/Dec	Jan/Dec		Jan/Aug	Jan/Aug	
Butter	68,303	60,762	64,810	7%	45,786	48,751	6%
Cream	113,502	116,911	114,205	-2%	74,084	71,637	-3%
Whole Milk Powder	10,765	12,077	11,862	-2%	8,739	8,295	-5%
Prepared Milk Powder	22,915	26,659	26,309	-1%	16,999	19,332	14%
Skim Milk Powder (NFDM)	136,354	119,844	128,610	7%	88,563	90,441	2%
Ice Cream (Unit: kilo liter)	143,433	144,724	134,093	-7%	91,650	94,784	3%

Source: ALIC Monthly

Table 5: Japanese NFDM Imports

Unit: Metric Ton

	2013	2014	2015	% Chg.	2015	2016	% Chg.
	Jan/Dec	Jan/Dec	Jan/Dec		Jan/Aug	Jan/Aug	
For School Lunch Program	1,966	1,874	1,803	-4%	1,343	1,345	0%
For Feeds	26,886	24,040	25,483	6%	16,245	17,206	6%
For Other Use (Current Access and ordinary imports)	3,436	16,611	25,716	55%	20,094	3,294	-84%
Total NFDM Imports	32,288	42,525	53,002	25%	37,682	21,845	-42%

Source: ALIC Monthly

Table 6: Monthly Ending Stocks of Butter and NFDM

Unit: 1,000 Metric Ton

Butter							
	2013	2014	% Chg.	2015	% Chg.	2016	% Chg.
Jan	21,887	19,112	-13%	17,543	-8%	21,085	20%
Feb	22,156	18,209	-18%	17,731	-3%	21,660	22%
Mar	23,469	17,317	-26%	17,833	3%	22,050	24%
Apr	24,368	17,248	-29%	18,307	6%	23,170	27%
May	25,822	17,966	-30%	19,580	9%	25,454	30%
Jun	25,713	18,374	-29%	20,274	10%	27,818	37%
July	25,040	17,123	-32%	20,228	18%	28,512	41%
Aug	24,473	16,606	-32%	19,972	20%	28,389	42%
Sept	23,005	17,220	-25%	23,385	36%		
Oct	21,458	15,372	-28%	23,518	53%		
Nov	20,041	17,116	-15%	20,127	18%		
Dec	18,223	15,263	-16%	18,826	23%		
NFDM							
	2013	2014		2015		2016	
Jan	45,267	41,972	-7%	40,716	-3%	56,281	38%
Feb	46,656	40,956	-12%	43,291	6%	56,774	31%
Mar	49,459	40,264	-19%	46,542	16%	56,419	21%
Apr	52,109	39,907	-23%	47,578	19%	57,718	21%
May	53,298	40,613	-24%	51,203	26%	58,818	15%
Jun	53,070	39,158	-26%	51,951	33%	58,748	13%
July	50,732	37,178	-27%	51,720	39%	56,943	10%
Aug	48,292	35,522	-26%	50,357	42%	55,594	10%
Sept	44,137	34,651	-21%	51,025	47%		
Oct	40,268	30,503	-24%	51,178	68%		
Nov	38,042	31,833	-16%	50,402	58%		
Dec	40,285	34,920	-13%	53,372	53%		

Source: ALIC Monthly

Table 7: Average Wholesale Price of Dairy Products YTD

Unit: JP Yen/Kg.

Butter									
	2012	2013	% Chg.	2014	% Chg.	2015	% Chg.	2016	% Chg.
Jan	1,140	1,224	7%	1,237	1%	1,320	7%	1,363	3%
Feb	1,142	1,233	8%	1,240	1%	1,320	6%	1,357	3%
Mar	1,158	1,233	6%	1,239	0%	1,319	6%	1,357	3%
Apr	1,172	1,236	5%	1,275	3%	1,375	8%	1,356	-1%
May	1,179	1,237	5%	1,278	3%	1,355	6%	1,356	0%
Jun	1,189	1,237	4%	1,281	4%	1,374	7%	1,356	-1%
July	1,192	1,236	4%	1,295	5%	1,378	6%	1,356	-2%
Aug	1,203	1,237	3%	1,309	6%	1,374	5%	1,356	-1%
Sept	1,212	1,237	2%	1,305	5%	1,374	5%		
Oct	1,213	1,236	2%	1,310	6%	1,374	5%		
Nov	1,217	1,237	2%	1,321	7%	1,374	4%		
Dec	1,219	1,237	1%	1,321	7%	1,367	3%		

Unit: JP Yen/25Kg.

NFDM									
	2012	2013	% Chg.	2014	% Chg.	2015	% Chg.	2016	% Chg.
Jan	15,200	15,761	4%	15,727	0%	16,846	7%	17,537	4%
Feb	15,211	15,753	4%	15,736	0%	16,856	7%	17,537	4%
Mar	15,236	15,759	3%	15,779	0%	16,923	7%	17,537	4%
Apr	15,246	15,767	3%	16,323	4%	17,457	7%	17,537	0%
May	15,251	15,763	3%	16,478	5%	17,534	6%	17,537	0%
Jun	15,243	15,749	3%	16,601	5%	17,545	6%	17,537	0%
July	15,264	15,755	3%	16,703	6%	17,581	5%	17,537	0%
Aug	15,449	15,750	2%	16,736	6%	17,577	5%	17,537	0%
Sept	15,567	15,737	1%	16,780	7%	17,574	5%		
Oct	15,638	15,729	1%	16,794	7%	17,548	4%		
Nov	15,699	15,726	0%	16,826	7%	17,548	4%		
Dec	15,685	15,728	0%	16,835	7%	17,537	4%		

Source: ALIC Monthly

Table 8: Japanese Butter Imports (Volume/CIF) YTD

Unit: Metric Ton (Customs Clearance Basis)

Partner Country	Calendar Year							Year To Date		
	2013	Share (%)	2014	Share (%)	2015	Share (%)	% Change (2015/2014)	08/2015	08/2016	%Change
World	3,888	100%	10,914	100%	15,794	100%	45%	6,014	6,747	12%
New Zealand	2,997	77%	6,103	56%	11,289	71%	85%	4,021	2,721	-32%
Netherlands	149	4%	2,322	21%	1,837	12%	-21%	976	2,107	116%
Germany	0	0%	633	6%	1,323	8%	109%	599	1,365	128%
France	230	6%	170	2%	481	3%	183%	214	288	35%
Australia	275	7%	353	3%	118	1%	-67%	66	101	53%
United States	223	6%	1,297	12%	25	0%	-98%	25	0	-100%
Others	14	0%	36	0%	721	5%	1903%	113	165	46%

Source of Data: Source: Global Trade Atlas (Japan Ministry of Finance)

Unit: United States Dollars per Metric Ton

Partner Country	Calendar Year				Year To Date		
	2013	2014	2015	% Change (2015/2014)	08/2015	08/2016	%Change
World	4,558	4,458	3,479	-22%	3,670	3,600	-2%
New Zealand	4,014	3,996	3,215	-20%	3,272	3,324	2%
Netherlands	5,742	4,673	3,826	-18%	3,923	3,420	-13%
Germany	0	5,065	3,877	-23%	4,078	3,486	-15%
France	10,195	13,919	7,085	-49%	7,944	7,370	-7%
Australia	5,506	5,002	5,512	10%	5,691	4,818	-15%
United States	3,885	4,503	4,053	-10%	4,053	0	-100%

Source of Data: Global Trade Atlas (Japan Ministry of Finance)

Table 9: Japanese Cheese Imports (Volume/CIF) YTD

Unit: Metric Ton (Customs Clearance Basis)

Partner Country	Calendar Year							Year To Date		
	2013	2013 Share (%)	2014	2014 Share (%)	2015	% Change (2015/2014)	2015 Share (%)	08/2015	08/2016	%Change
World	236,191	100%	231,946	100%	249,285	7%	100%	164,832	172,732	5%
Australia	94,428	40%	79,444	34%	89,437	13%	36%	58,630	59,242	1%
New Zealand	63,881	27%	55,459	24%	57,118	3%	23%	39,469	42,254	7%
United States	30,322	13%	51,003	22%	37,043	-27%	15%	26,516	20,581	-22%
Netherlands	6,795	3%	7,003	3%	17,711	153%	7%	10,814	12,916	19%
Germany	8,599	4%	6,868	3%	12,018	75%	5%	7,311	8,763	20%
Denmark	7,676	3%	7,853	3%	10,041	28%	4%	6,121	8,414	37%
France	9,080	4%	8,862	4%	8,628	-3%	3%	5,259	6,131	17%
Italy	8,123	3%	8,275	4%	8,383	1%	3%	5,627	5,968	6%
Argentina	3,367	1%	3,213	1%	3,372	5%	1%	1,761	2,577	46%
Ireland	1,624	1%	1,462	1%	2,859	96%	1%	1,426	2,907	104%
Belgium	886	0%	709	0%	1,405	98%	1%	1,074	658	-39%
Others	1,410	1%	1,795	1%	1,270	-29%	1%	824	2,321	182%
EU-28	**43,245**	**18%**	**41,373**	**18%**	**61,470**	**49%**	**25%**	**37,869**	**47,626**	**26%**

Source of Data: Global Trade Atlas (Japan Ministry of Finance)

Unit: United States Dollars per Metric Ton

Partner Country	Calendar Year				Year To Date		
	2013	2014	2015	%Change (2015/2014)	08/2015	08/2016	%Change
World	4,735	5,122	4,217	-18%	4,315	3,843	-11%
Australia	4,115	4,444	3,727	-16%	3,843	3,389	-12%
New Zealand	4,029	4,738	3,895	-18%	3,977	3,601	-9%
United States	4,814	4,797	4,766	-1%	4,840	4,268	-12%
Netherlands	4,800	4,945	3,272	-34%	3,299	3,086	-6%
Germany	4,415	4,801	3,299	-31%	3,367	3,041	-10%
Denmark	6,689	6,944	4,765	-31%	4,892	4,371	-11%
France	8,840	8,490	6,937	-18%	6,897	6,392	-7%
Italy	10,654	10,621	8,628	-19%	8,656	8,363	-3%
Argentina	4,107	4,713	3,668	-22%	4,132	2,956	-28%
Ireland	4,244	5,093	3,923	-23%	4,245	3,213	-24%
Belgium	4,419	5,105	3,797	-26%	3,903	3,661	-6%
EU-28	7,022	7,247	4,839	-33%	4,948	4,415	-11%

Source of Data: Global Trade Atlas (Japan Ministry of Finance)

Table 10: Japanese National Dairy Herd Year Beginning Inventory

Unit: Farm/Head

National Dairy Cow Inventory

Year Beginning (As of February 1)	Total Number of Dairy Farms	Total Number of Dairy Cows	Dairy Cows (Over Two Years of Age)					Heifer (Less Than Two Years of Age)	Total Heifer	Animals Raised per Farm
			Total	Cow			Heifer			
				Sub Total	Milking	Dry				
2012	20,100	1,449,000	1,012,000	942,600	812,700	129,900	69,700	436,700	506,400	72
2013	19,400	1,423,000	992,100	923,400	798,300	125,100	68,700	431,300	500,000	73
% Chg.	-3%	-2%	-2%	-2%	-2%	-4%	-1%	-1%	-1%	2%
2014	18,600	1,395,000	957,800	893,400	772,500	121,000	64,400	436,800	501,200	75
% Chg.	-4%	-2%	-3%	-3%	-3%	-3%	-6%	1%	0%	2%
2015	17,700	1,371,000	934,100	869,700	750,100	119,600	64,400	437,200	501,600	77
% Chg.	-5%	-2%	-2%	-3%	-3%	-1%	0%	0%	0%	3%
2016	17,000	1,345,000	936,700	871,000	751,700	119,300	65,800	408,300	474,100	79
% Chg.	-4%	-2%	0%	0%	0%	0%	2%	-7%	-5%	2%

Hokkaido Inventory

Year Beginning (As of February 1)	Total Number of Dairy Farms	Total Number of Dairy Cows	Dairy Cows (Over Two Years of Age)					Heifer (Less Than Two Years of Age)	Total Heifer	Animals Raised per Farm
			Total	Cow			Heifer			
				Sub Total	Milking	Dry				
2012	7,270	821,900	533,200	495,400	421,200	74,200	37,800	288,800	326,600	113
2013	7,130	806,800	522,100	485,200	413,100	72,100	37,000	284,700	321,700	113
% Chg.	-2%	-2%	-2%	-2%	-2%	-3%	-2%	-1%	-2%	0%
2014	6,900	795,400	506,100	470,300	401,000	69,400	35,800	289,300	325,100	115
% Chg.	-3%	-1%	-3%	-3%	-3%	-4%	-3%	2%	1%	2%
2015	6,680	792,400	496,400	459,700	389,800	69,900	36,700	296,000	332,700	119
% Chg.	-3%	0%	-2%	-2%	-3%	1%	3%	2%	2%	3%
2016	6,490	785,700	508,600	470,900	400,500	70,400	37,700	277,100	314,800	121
% Chg.	-3%	-1%	2%	2%	3%	1%	3%	-6%	-5%	2%

Rest of Japan Inventory

Year Beginning (As of February 1)	Total Number of Dairy Farms	Total Number of Dairy Cows	Dairy Cows (Over Two Years of Age)					Heifer (Less Than Two Years of Age)	Total Heifer	Animals Raised per Farm
			Total	Cow			Heifer			
				Sub Total	Milking	Dry				
2012	12,830	627,100	478,800	447,200	391,500	55,700	31,900	147,900	179,800	49
2013	12,270	616,200	470,000	438,200	385,200	53,000	31,700	146,600	178,300	50
% Chg.	-4%	-2%	-2%	-2%	-2%	-5%	-1%	-1%	-1%	3%
2014	11,700	599,600	451,700	423,100	371,500	51,600	28,600	147,500	176,100	51
% Chg.	-5%	-3%	-4%	-3%	-4%	-3%	-10%	1%	-1%	2%
2015	11,020	578,600	437,700	410,000	360,300	49,700	27,700	141,200	168,900	53
% Chg.	-6%	-4%	-3%	-3%	-3%	-4%	-3%	-4%	-4%	2%
2016	10,510	559,300	428,100	400,100	351,200	48,900	28,100	131,200	159,300	53
% Chg.	-5%	-3%	-2%	-2%	-3%	-2%	1%	-7%	-6%	1%

Note: 99 percent of dairy cows raised in Japan are Holstein breed.

Source: MAFF Livestock Statistics

Table 11: Average per Cow Fluid Milk Output

Average per Cow Fluid Milk Output				
	Hokkaido		Other Prefectures	
	(kg)	% Chg.	(kg)	% Chg.
2013 Avg.	**28.8**		**28.5**	
2014 Avg.	**28.8**	**0%**	**28.5**	**0%**
2015				
Jan.	28.8	101.4	29.0	101.4
Feb.	29.0	101.4	29.2	101.4
Mar.	29.2	101.7	29.4	101.4
Apr.	29.2	101.4	29.6	101.7
May	29.8	101.4	29.7	102.1
Jun.	30.5	102.0	29.5	102.8
Jul.	30.1	102.0	28.7	102.1
Aug.	29.6	102.8	27.8	101.5
Sept.	29.3	102.8	28.3	101.4
Oct.	28.9	103.2	28.3	100.7
Nov.	28.9	103.2	28.6	101.1
Dec.	29.3	103.2	28.9	101.0
2015 Avg.	**29.4**	**2%**	**28.9**	**2%**
2016				
Jan.	29.6	102.8	29.0	100.0
Feb.	29.8	102.8	29.2	100.0
Mar.	29.9	102.4	29.6	100.7
Apr.	30.1	103.1	29.8	100.7
May	30.7	103.0	29.7	100.0
Jun.	31.1	102.0	29.5	100.0
Jul.	30.8	102.3	28.7	100.0
Aug.	-	-	28.0	100.7

Source: Livestock Improvement Association of Japan

Table 12: Percent Share of Artificial Insemination on Holstein Cow Crossed With *Wagyu* Bull

Unit: Head

	Hokkaido			Rest of Japan*		
	Holstein AI Total	Holstein Crossed with Wagyu Bull	Wagyu AI Share (%)	Holstein AI Total	Holstein Crossed with Wagyu Bull	Wagyu AI Share (%)
2000	1,007,281	154,744	15.4	389,650	168,505	43%
2001	1,032,266	168,710	16.3	392,637	163,941	42%
2002	1,077,587	147,664	13.7	392,551	151,797	39%
2003	1,137,550	177,588	15.6	361,813	146,298	40%
2004	1,134,422	185,078	16.3	367,090	146,674	40%
2005	1,160,203	186,102	16.0	366,901	150,521	41%
2006	1,139,977	228,756	20.1	351,814	160,828	46%
2007	1,126,871	202,405	18.0	320,957	148,315	46%
2008	1,120,843	162,291	14.5	313,508	129,232	41%
2009	1,116,950	163,741	14.7	304,200	123,098	40%
2010	1,116,118	194,461	17.4	292,423	127,084	43%
2011	1,113,168	210,326	18.9	273,329	121,566	44%
2012	1,109,927	182,695	16.5	265,934	116,856	44%
2013	1,070,215	193,825	18.1	256,227	120,836	47%
2014	1,039,609	212,536	20.4	237,749	120,559	51%
2015	1,030,168	216,147	21.0	229,019	119,047	52%

Source: Japan Livestock AI Technician Association

* Rest of Japan data: Post summed up data from seven regions to derive the Rest of Japan Wagyu AI share.

Table 13: Japan's Current Access and Additional Importation of Designated Dairy Commodities

Unit: Metric Ton

Current Access								
	JFY 2013	Milk Equivalent Volume	JFY 2014	Milk Equivalent Volume	JFY 2015	Milk Equivalent Volume	JFY 2016	Milk Equivalent Volume
Butter	3,500	43,190	3,000	37,020	2,800	34,552	7,000	86,380
NFDM	8,768	56,817	9,178	59,473	10,000	64,800	2,000	12,960
Dairy Spread	225	2,777	500	6,170	330	4,072	330	4,072
Butter Oil	242	3,666	250	3,788	200	3,030	200	3,030
Whey/Prepared Whey	4,500	30,780	4,500	30,780	4,500	30,780	4,500	30,780
Subtotal		**137,229**		**137,231**		**137,234**		**137,222**
Japan's Additional Importation of Designated Dairy Commodities								
	JFY 2013	Milk Equivalent Volume	JFY 2014	Milk Equivalent Volume	JFY 2015	Milk Equivalent Volume	JFY 2016	Milk Equivalent Volume
Butter	0	0	10,000	123,400	10,000	123,400	10,000	123,400
NFDM	0	0	10,000	64,800	5,000	32,400	2,000	12,960
Subtotal	0	0	20,000	188,200	15,000	155,800	12,000	136,360
Ground Total		**137,229**		**325,431**		**293,034**		**273,582**

Source: Agriculture and Livestock Industry Corporation

Milk Equivalent Conversion Coefficient:

Butter	**12.34**
NFDM	**6.48**
Dairy Spread	**12.34**
Butter Oil	**15.15**
Whey Powder	**6.84**