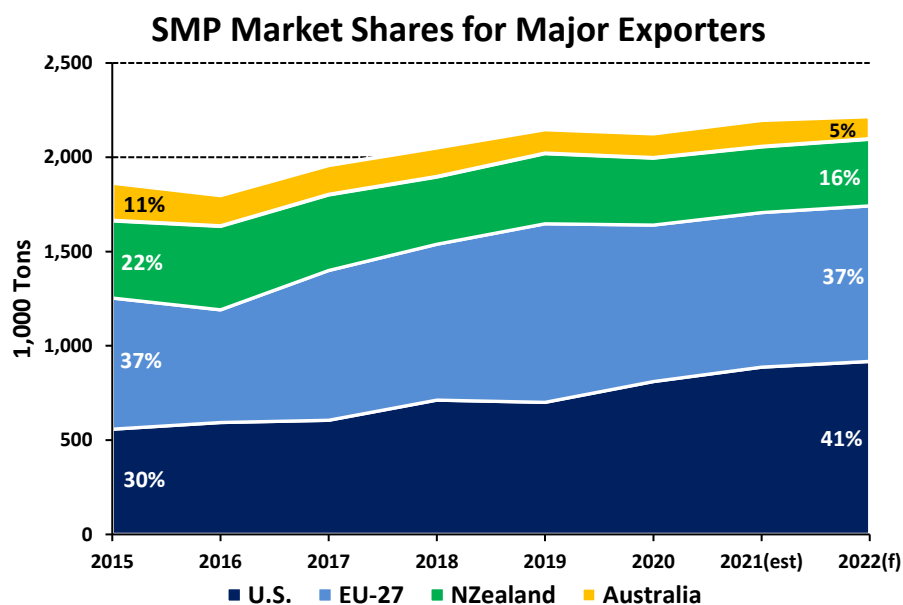


Dairy: World Markets and Trade

Dairy Production and Trade Developments

Despite the logistical challenges posed by the COVID-19 pandemic, U.S. dairy exports are set to record a stellar year led by shipments of skimmed milk powder (SMP), cheese, and butter. SMP shipments through October have already reached 689,000 tons, accounting for nearly one third of the \$6.4 billion of dairy exports already shipped. For the year, SMP exports are forecast to reach a record 887,000 tons – up almost 10 percent – over 2020. For 2022, growth is anticipated to moderate with exports set to grow by 3 percent to reach 917,000 tons. Global prices of SMP have been rebounding recently as a result of lackluster milk production in Oceania and the EU. SMP prices in these regions are currently hovering around \$1.60-\$1.65 per pound. While U.S. prices remain competitive, import demand is expected to be tempered as food processors seek more cost-effective substitutes.

One notable trend is that U.S. global market share of SMP among major exporters has been



steadily climbing from around 30 percent in 2015 and is forecast to reach 41 percent in 2022. Since 2014, the EU has been the dominant supplier; however, this year U.S. exports of SMP are expected to surpass EU shipments. This trend is likely to persist into next year as U.S. milk production is expected to continue to grow.

Exports of other dairy products such as cheese and butter have also posted strong gains this year. In the case of cheese, shipments this year are expected to grow by 16 percent to reach a record 412,000 tons. U.S. butter has also been highly sought after as it is highly competitive in a tight global market. Recent Oceania prices have been around \$2.65 per pound while EU prices have been higher. Exports of U.S. butter this year are expected to more than double from last year to reach 60,000 tons.

Exports of other dairy

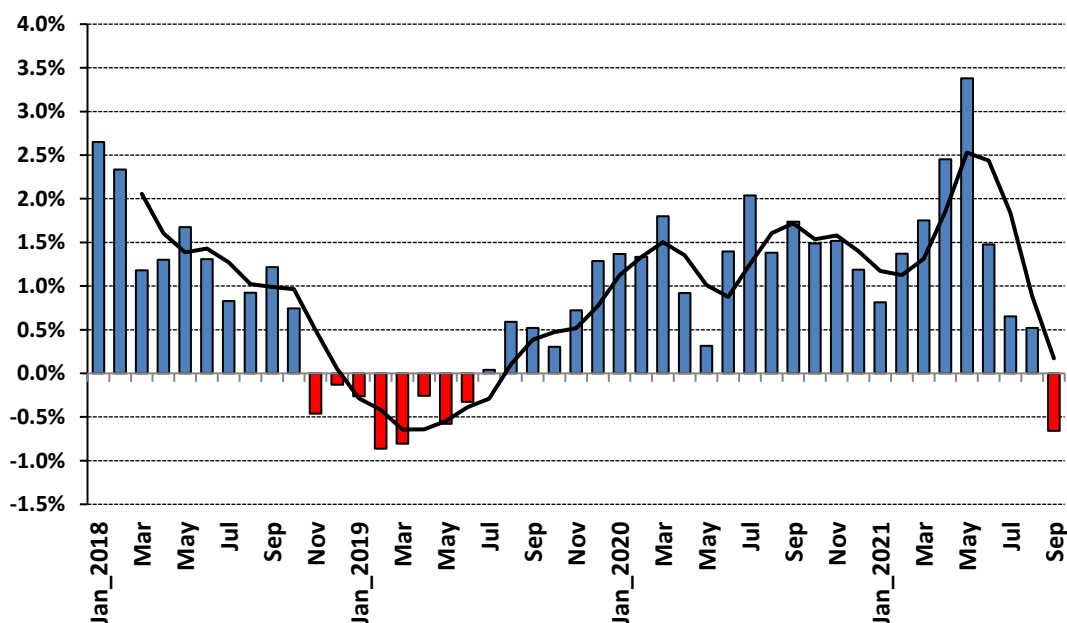
Fluid Milk:

Milk Production Summary for Major Exporters (Million Tons)

	2020	2021 Forecast	2022 Forecast	2021-2022 Change
Argentina	11.4	11.9	12.1	2%
Australia	9.1	9.0	9.1	1%
EU-27	145.4	145.7	146.7	1%
New Zealand	21.0	22.2	22.3	0%
United States	101.3	102.6	103.3	1 %
Major Exporter Total	288.2	291.4	293.5	1%

Note: Data is rounded.

Percent Change in Monthly Milk Production for Major Producers and 3-month Moving Average



Note: --Includes, Argentina, Australia, EU, New Zealand, and the United States.
--Adjusted for Leap Year 2020

- Summary:** In recent months, global prices for major dairy commodities have been rising rapidly due to strong demand and faltering milk production in key producing countries. As the chart above highlights, month-to-month gains in milk output among major producers has been declining since May 2021. In September, growth was negative and initial production figures for October point to further declines. In Oceania, a cold wet

spring has undercut the spring flush season. In the EU, weather has also negatively impacted output to the extent that milk production is expected to be stagnant in 2021. In the United States, after a strong start in the first half of the year milk output slowed due to unfavorable climatic conditions and the high costs of production. In October, milk production was one-half percent less than the prior year. In contrast to other major producers, Argentina's milk production has thus far been expanding and cumulative output through September was up 4 percent year-over-year. However, Argentina typically accounts for less than 5 percent of the global milk supply among major producers.

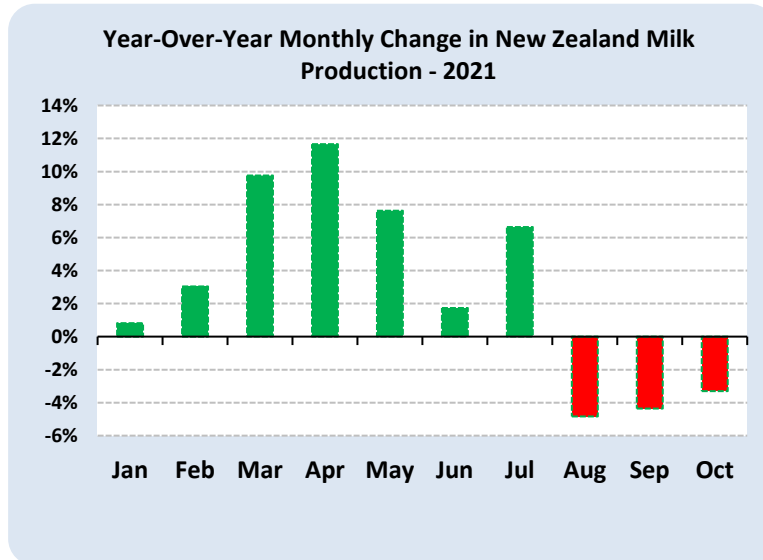
- In **Australia**, milk production in 2022 is expected to grow 1 percent to 9.1 million tons as easing travel restrictions in Victoria and New South Wales allow labor availability, which constrained production in 2020, to improve. Furthermore, margins are expected to be supported by continued strong milk prices and further improvement in feed and water availability.

Milk production during 2021 is estimated at 9.0 million tons, 1 percent below a year ago, despite improved feed quality and availability and strong milk prices. Production has been hindered by excessively wet conditions during the winter months, leading producers to dry-off animals early. Additionally, extended COVID-19 related lockdowns made securing labor difficult, leading some dairy farms to be fully or partially converted to less labor-intensive cattle operations.

- Milk output in **Argentina** is expected to grow nearly 2 percent in 2022, reaching 12.1 million tons. While this will be the third consecutive year of increasing milk production, the pace of growth is expected to slow from 2021 and 2020. Producer margins remain positive but are increasingly coming under pressure from rising input costs.
- In the **European Union**, milk production is forecast to expand by 1 percent in 2022 to 146.7 million tons. In a longstanding pattern, the number of milk cows are expected to contract by 1 percent, but this is likely to be offset by a 2 percent increase in milk-per-cow output. In the period from 2016-2020, the number of cows has contracted by an annual average of 1 percent while yields have grown annually by 2 percent.

For the current year, the EU milk production forecast is cut by 500,000 tons to 145.7 million tons which represents a marginal rise in output compared to 2020. After a strong start in the spring, milk production in the subsequent months has been uneven due to weather and higher feed costs affecting some Member States. Cumulative milk production through September was virtually unchanged from last year. However, good fodder supplies, and higher farm gate prices are expected to boost production in the last quarter of the year.

- **New Zealand** milk production is forecast to grow marginally in 2022 after an exceptionally good season in 2021 that benefitted from relatively strong gains in output per cow early in the year. In 2022, cow numbers are forecast to decline by one half of 1



percent to 4.88 million head. However, the herd has become more productive and slightly higher milk-per-cow yields are expected to offset the smaller herds. Further, the farmgate milk price paid by Fonterra is forecast to be exceptionally, high ranging from NZ\$8.40-NZ\$9.00 per kilogram milk solids. The decline in cow numbers conforms to a longer-term trend that has seen the

number of cows peaking in 2014 at 5.2 million head and has since been decreasing. This downward slide is expected to continue over the long-term as farmers face freshwater environmental protection regulations and potential climate change regulations.

For 2021, the milk production forecast is projected to grow by 1 percent over 2020 to 22.2 million tons. Despite an ideal early season start that resulted in cumulative milk output through June gaining nearly 6 percent compared to 2020, milk production was adversely affected by cold and wet spring conditions. By the end of October, cumulative gains in milk output had been whittled down to just 1 percent relative to the previous year. For the balance of this year and early in 2022, milk production is likely to improve due to favorable weather conditions. The New Zealand National Institute of Water and Atmospheric Research (NIWA) has indicated that La Niña conditions have developed in the equatorial Pacific in November and summer temperatures from December 2021 to February 2022 are likely to be above average.¹

¹ <https://niwa.co.nz/climate/seasonal-climate-outlook>

CHEESE:

Cheese Exports Summary for Major Exporters (1,000 Tons)

	2020	2021 Forecast	2022 Forecast	2021-2022 Change
Australia	153	160	165	3%
Belarus	275	295	310	5%
EU-27	1,402	1,410	1,420	1%
New Zealand	327	372	355	5%
United States	355	412	413	0%
Major Exporter Total	2,512	2,649	2,663	1%

Note: Data is rounded.

- **Australian** cheese production in 2022 is estimated at 370,000 tons, growing nearly 3 percent year-over-year on greater milk availability and a shift back to cheese production after pricing favored the butter/powder stream during much of 2021. Over the course of the last year, prices for butter and milk powder rose much more quickly than for cheese. In 2022, it is expected that conditions will normalize, and manufacturing milk use will return to the long-term trend favoring cheese production.

Cheese exports are forecast to grow 3 percent in 2022, reaching 165,000 tons. Trade will be supported by further demand growth in China, the second-largest market for Australian cheese.

- Despite stagnant milk output in 2021, **European Union** cheese production is forecast to grow by 1 percent in 2021 due in part to the opening of several new cheese plants producing mozzarella for the food processing industry. For 2022, cheese production is expected to moderate and grow by one-half percent to reach 10.4 million tons. This will account for about two thirds of the available milk for factory use. Cheese consumption remains strong driven in part due to consumer popularity for cheeses designated under the Geographical Indicator status. In addition, the hotel, restaurant, and institutional (HRI) sector remains an important component driving cheese consumption and this sector is assumed to recover from the COVID-19 crisis in 2022.

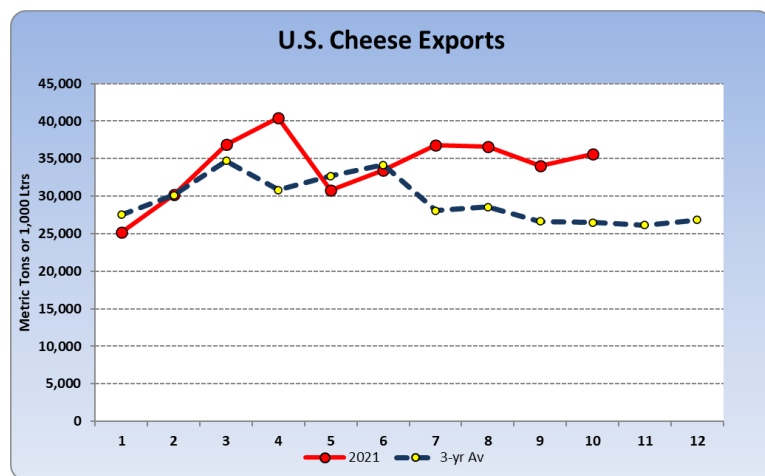
For 2022, EU cheese exports are forecast to grow by 1 percent with the bulk of the cheese likely destined for the UK, the United States and Japan. In 2021, shipments are up 1 percent through August with about 30 percent of exports going to the U.K. While shipments to the U.K. are down 12 percent over this period, the EU is successfully expanding in the Japanese market. EU cheese exports to Japan have grown by an annual average rate of 13 percent between 2016-2020 and Japan's import data indicates that the EU will have a strong second half of this year. The United States is an equally important market for the EU and while exports to the United States fell by 10 percent in

2020, cumulative shipments in 2021 through August are up 17 percent year-over-year. This rebound was largely attributable to the 5-year suspension of U.S. import tariffs originally imposed due to Boeing-Airbus World Trade Organization dispute.

- After a strong 2021 during which **New Zealand's** cheese production ramped up by 11 percent, cheese output in 2022 is slated to drop by 1 percent as more milk is expected to move into the production of higher valued dairy products such as butter and SMP. However, it is likely that more mozzarella cheese will be produced at the expense of cheddar as there is strong demand in Asia for New Zealand produced mozzarella.

Exports for 2022 are forecast down 5 percent to 355,000 tons following a banner year when exports are on track to reach a record 372,000 tons. Exports to China have grown rapidly and shipments through October 2021 compare to the same period in 2020 have grown by 39 percent from last year and account for about a quarter of the total volume of cheese shipped.

- Cheese consumption in **Russia** grew at a rapid 6 percent annual average rate between 2016 and 2020 and has been met by both domestic production and rising imports. For 2022, cheese output is pegged to grow by 1 percent to 1.1 million tons and imports are expected to grow by 2 percent to 340,000 tons. This would be a slowdown from the 8 percent growth in imports expected for this year. Historically Belarus has been the main supplier of dairy products to Russia and accounted for about 85 percent of Russian cheese imports from January-October 2021. Belarussian cheese is considered to be comparable to Russian cheese in terms of taste and quality but is sold at discounted prices.
- In the **United States**, cheese exports in 2022 are forecast to be fractionally higher than 2021. A slowdown in the growth of milk production coupled with relatively strong domestic demand is anticipated to limit exportable supplies. However, shipments of cheese have been strong in 2021 and the export forecast has been revised-up by 9 percent to 412,000 tons. This has largely been due to shipments to Mexico which through October have grown by 9 percent year-over-year and account



for about one quarter of U.S. shipments. Other major destinations are South Korea, Japan, and Australia that combined account for about one third of U.S. cheese shipments.

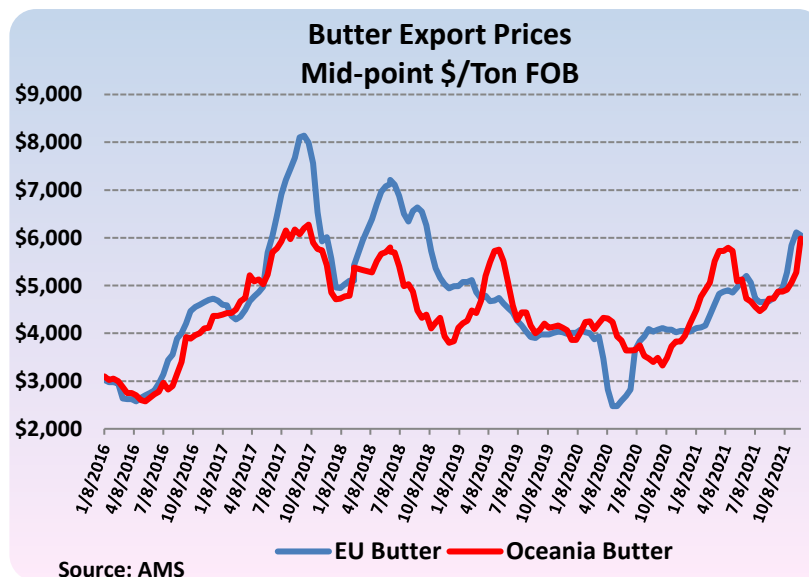
BUTTER (Includes Butteroil/AMF):

Butter Exports Summary for Major Exporters (1,000 Butter Equivalent Tons)

	2020	2021 Forecast	2022 Forecast	2021-2022 Change
Belarus	69	75	75	0%
EU-27	316	250	255	2%
New Zealand	471	435	455	5%
United States	27	60	54	-10%
Major Exporter Total	883	820	839	2%

Note: Data is rounded.

- After several years of declining production, butter output in **New Zealand** for 2022 is forecast to reverse course and grow moderately by 3 percent to 485,000 tons. The 2021 estimate is revised down by 4 percent to 470,000 tons – a drop of 6 percent over the previous year. The 2022 forecast is supported by the higher expected global prices of SMP and butter which will likely channel milk away from cheese. In November, EU butter prices were around \$2.74 per pound while Oceania prices were about \$2.70 per



pound. However, there is an increasing volume of milkfat being used to produce Ultra High Temperature (UHT) cream for export rather than butter. Already, shipments of cream and high-fat liquid products this year through October are up 23 percent year-over-year to reach 132,000 tons. Nearly 80 percent of

this product is being shipped to China.

- The butter import market in **China** continues to grow at a rapid pace with butter imports in 2022 forecast to reach 170,000 tons, up 17 percent from 2021. China butter imports rose at an average annual growth rate of 9 percent between 2016 and 2020 to become the largest butter import market in the world. The production of butter in China is limited by production capacity and milk supplies and cannot effectively compete with lower priced imports. Consumption of butter is being driven by higher disposable

incomes allowing consumers to purchase not just butter but products such as bakery goods and food service products containing butter.

SKIMMED MILK POWDER (SMP):

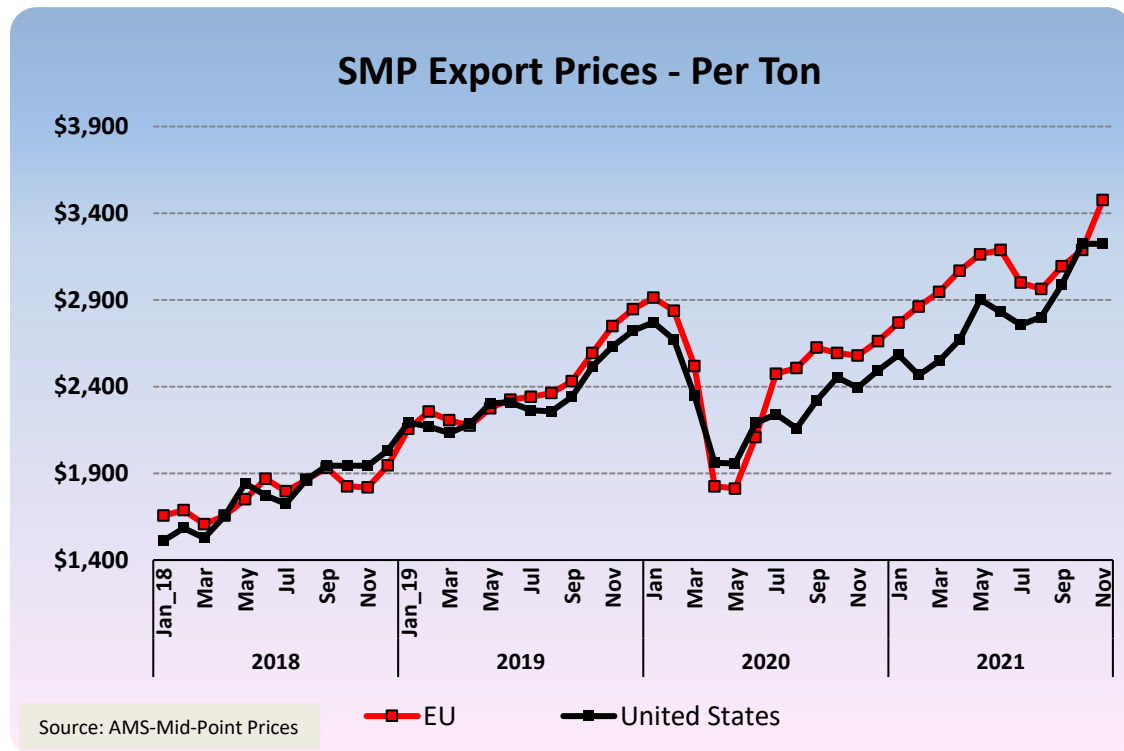
**SMP Exports Summary for Major Exporters
(1,000 Tons)**

	2020	2021 Forecast	2022 Forecast	2021-2022 Change
Australia	129	140	120	-14%
Belarus	123	123	125	2%
EU-28	831	820	825	1%
New Zealand	356	350	355	1%
United States	810	887	917	3%
Major Exporter Total	2,249	2,320	2,342	1%

Note Data is rounded.

- **Australia** exports of SMP are expected at 120,000 tons in 2022, 14 percent below the year prior. Following strong SMP exports during 2021, stocks have been depleted to their lowest level since 2009. This, coupled with expectations for flat production and higher consumption in 2022, will weigh on exportable supplies.
- Reflecting higher forecast milk supplies, **European Union** SMP production in 2022 is expected to grow by 1 percent to 1.56 million tons. Exports are also expected to rise modestly by 1 percent to 825,000 tons but this is well below the peak of 946,000 attained in 2019. China and Algeria have been the principal destinations for most of the SMP shipped by the EU and this is unlikely to change in the coming year. This year through August, China has accounted for about 18 percent of exports – up 24 percent in comparison to last year. However, about 28 percent of SMP is shipped to some of the key Asian markets and competes directly with U.S. SMP.
- SMP output in the **United States** is forecast to grow by 5 percent in 2022 while exports are slated to expand by 3 percent to a record 917,000 tons. Although SMP exports are projected to grow by 10 percent in 2021, they are forecast to slow in 2022 reflecting lower available milk supplies. U.S. milk production is forecast to grow by slightly over 1 percent in 2021, but growth in 2022 is anticipated to moderate and only expand by slightly half of 1 percent. In addition, the price gap between U.S. and EU SMP is expected to narrow during the next several months creating a more challenging environment for U.S. exporters. Currently EU prices for SMP are being quoted at around

\$1.68 per pound FOB while the U.S. price for Western SMP FOB ex-plant is about \$1.56 per pound.²



WHOLE MILK POWDER (WMP):

WMP Exports Summary for Major Exporters (1,000 Tons)

	2020	2021 Forecast	2022 Forecast	2021-2022 Change
Argentina	148	138	145	5%
Australia	37	52	50	-4%
EU-28	345	310	280	-10%
New Zealand	1,533	1,620	1,600	-1%
Major Exporter Total	2,063	2,120	2,075	-2%

Note: Data is rounded.

² https://mymarketnews.ams.usda.gov/filerepo/reports?field_slug_id_value=2998

- For 2022, **China** imports of WMP are forecast to remain flat at 880,000 tons as a rise in domestic production is expected to meet growth in domestic demand for WMP. Consumption is anticipated to grow as declines in infant formula and reconstituted milk products are more than offset by booming demand from the bakery sector. Further, there is a growing niche market for adult-and-elderly focused supplemental and fortified milk drinks that include WMP.

The 2021 import forecast is revised-up by 55,000 tons to 880,000 tons which, if realized, would represent slightly more than a one-third increase from 2020 imports. Dairy consumption in China remains strong as it is perceived as a product that can enhance a person's immune system.

- The **New Zealand** WMP production forecast for 2022 is set at 1.6 million tons, about 1 percent less than expected for 2021 as the milk supply available for WMP is likely to be reduced. Milk production in 2022 is expected to be virtually unchanged, and additional volumes are forecast to be channeled into the production of higher value-added products. With weaker WMP output, shipments of WMP are also forecast to drop by 1 percent.

New Zealand is highly reliant on the Chinese import market which accounted for 43 percent of WMP exported in 2020. This percentage is likely to rise this year as exports through October indicate that nearly 47 percent of WMP exports have been shipped to China.

U.S. Dairy Export Forecasts:

U.S. Dairy Products Export Forecast - Calendar Year 2021-2022

	2021(For)	Milk Equivalent (Bil. Lbs.)		2022 (For)	Milk Equivalent (Bil. Lbs.)	
		Fat	Skims		Fat	Skims
NON-FAT DRY AND SKIM MILK PWDR	886,644 MT	0.4	20.7	917,000 MT	0.4	21.5
MILK POWDER > 1.5% MILK FAT	38,102 MT	0.6	0.6	46,000 MT	0.7	0.8
BUTTER/MILKFAT/SPREADS	57,476 MT	2.7	0.0	51,850 MT	2.4	0.0
CHEESE AND CURD	411,717 MT	6.2	3.3	412,850 MT	6.1	3.3
FLUID PRODUCTS 4/	207,412 Liters	0.5	0.4	183,450 Liters	0.5	0.4
DRIED WHEY PRODUCTS	626,075 MT	0.7	14.4	609,000 MT	0.7	14.0
LACTOSE	397,510 MT	0.0	9.7	394,400 MT	0.0	9.6
OTHER DAIRY PRODUCTS	209,521 MT	0.7	2.2	214,450 MT	0.7	2.4
TOTAL - Billion Pounds		11.8	51.5		11.5	52.0

Note: 1) CY 2021 includes actual exports through October 2021
2) Milk Equivalent figures are rounded and totals may not add up.
3) Forecasts assume current policy
4/ Includes milk based drinks, fluid whey, cream and fluid milk

Exports on a Milk Equivalent Basis Through October 2021

Top Dest. -M.E. Milkfat Basis (Mill. lbs)	2021	Top Dest.-M.E. Skim Basis (Mill. lbs)	2021
MEXICO	1,940 20%	MEXICO	9,508 22%
CANADA	1,091 11%	CHINA (MAINLAND)	8,658 20%
SOUTH KOREA	1,086 11%	PHILIPPINES	3,402 8%
CHINA (MAINLAND)	691 7%	INDONESIA	2,663 6%
JAPAN	625 6%	VIETNAM	2,635 6%
AUSTRALIA	438 4%	JAPAN	1,736 4%
Other	3,982 40%	Other	14,851 34%
TOTAL	9,853	TOTAL	43,453

Additional Resources:

For additional information, please contact Paul Kiendl at 202-720-8870 or Paul.Kiendl@usda.gov or Jacob Vuillemin at 202-690-4476 or Jacob.Vuillemin@usda.gov

Subscription services for FAS circulars can be obtained at:
<https://public.govdelivery.com/accounts/USDAFAS/subscriber/new>

Individual FAS country reports covering dairy are available at: <https://gain.fas.usda.gov/#/>

The USDA Production, Supply and Demand database is available at:
<https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>

A monthly “Livestock, Dairy, and Poultry Outlook” for the United States published by the Economic Research Service is available at: <https://www.ers.usda.gov/publications/>

U.S. trade data is available on the Global Agricultural Trade System (GATS):
<https://apps.fas.usda.gov/gats/default.aspx>

The next publication of this circular will be on July 19, 2021.

Circular Notes:

EU and UK Production, Supply and Distribution (PSD) Datasets and “Brexit”

Effective January 1, 2021, the separation of the United Kingdom (UK) from the European Union (EU) was complete, including trade between both entities.

Starting in December 2021 with the release of the 2022 data, dairy PSDs reflect EU27 (shown in the PSD system as “European Union”) and the UK separately. This change is reflected with the PSD data starting in 2016. For data prior to 2016, the “European Union” reflects the EU27+UK.

- Fluid milk in liters is converted to kilograms using a 1.03 conversion factor.
- U.S. cheese imports only include cow’s milk cheeses.
- For the United States, SMP includes nonfat dry milk for human and animal use and skimmed milk powder.
- The Butter PS&D’s include butter, anhydrous milk fat (AMF), and butteroil. The AMF and butteroil are converted to a butter-equivalent basis by multiplying by 1.25.
- Production data for fluid milk, butter, SMP, and WMP for China is based on data published by the National Bureau of Statistics and the Organization for Economic Co-operation and Development (OECD). The production data for cheese has been revised for the past ten years to reflect research by FAS.

Fluid Milk - Cow Numbers: Summary For Selected Countries
1,000 Head

	2017	2018	2019	2020	2021	2022 Dec
Cows In Milk						
India	54,000	52,482	54,600	56,450	58,000	59,800
European Union	21,634	21,409	21,029	20,766	20,565	20,300
Brazil	16,262	16,300	16,500	16,400	16,646	16,896
Mexico	6,550	6,550	6,500	6,550	6,600	6,650
Russia	7,080	6,815	6,711	6,615	6,495	6,430
China	7,000	6,200	6,100	6,150	6,200	6,300
New Zealand	4,861	4,993	4,946	4,922	4,900	4,875
United Kingdom	1,898	1,904	1,879	1,867	1,856	1,840
Ukraine	2,170	2,078	1,970	1,789	1,722	1,640
Argentina	1,672	1,640	1,598	1,610	1,615	1,630
Belarus	1,502	1,500	1,498	1,485	1,480	1,475
Australia	1,512	1,525	1,440	1,420	1,410	1,420
Canada	945	970	968	972	991	990
Japan	735	731	730	715	726	730
Korea, South	198	205	204	202	204	203
Taiwan	61	62	62	63	66	66
Philippines	12	11	11	11	11	12
Subtotal	128,092	125,375	126,746	127,987	129,487	131,257
United States	9,406	9,398	9,337	9,388	9,450	9,385
Total	137,498	134,773	136,083	137,375	138,937	140,642

Cows Milk Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Cows Milk Production						
European Union	140,848	142,258	143,060	145,415	145,700	146,700
India	83,634	89,800	92,000	93,800	96,000	98,000
China	30,386	30,750	32,012	34,400	34,600	35,500
Russia	29,972	30,398	31,154	32,010	32,020	32,150
Brazil	23,624	23,745	24,262	24,965	24,845	25,095
New Zealand	21,530	22,017	21,896	21,980	22,240	22,250
United Kingdom	15,145	15,189	15,429	15,447	15,500	15,600
Mexico	12,121	12,368	12,650	12,750	12,850	12,980
Argentina	10,090	10,837	10,640	11,445	11,900	12,100
Canada	9,675	9,944	9,903	10,035	10,185	10,330
Australia	9,462	9,451	8,832	9,099	9,000	9,100
Ukraine	10,275	10,070	9,646	9,258	8,800	8,300
Belarus	7,321	7,345	7,394	7,765	7,830	7,900
Japan	7,281	7,289	7,314	7,438	7,515	7,570
Korea, South	2,081	2,041	2,035	2,088	2,030	2,040
Taiwan	380	385	410	437	437	440
Philippines	15	16	17	17	16	17
Subtotal	413,840	423,903	428,654	438,349	441,468	446,072
United States	97,762	98,688	99,084	101,252	102,604	103,284
Total	511,602	522,591	527,738	539,601	544,072	549,356
Fluid Use Dom. Consum.						
India	72,185	77,000	79,000	81,000	83,000	85,000
European Union	23,738	23,313	23,373	23,912	23,900	23,950
China	12,810	12,700	13,200	13,000	14,501	14,995
Brazil	9,993	10,762	10,900	11,170	11,120	11,231
Russia	7,500	7,318	7,270	7,080	6,990	6,900
United Kingdom	6,910	6,763	6,404	6,376	6,280	6,250
Ukraine	4,998	4,862	4,967	5,025	4,960	4,593
Mexico	4,174	4,183	4,190	4,145	4,149	4,166
Japan	3,974	3,995	4,000	4,020	4,050	4,065
Canada	2,884	2,832	2,816	2,844	2,835	2,825
Australia	2,530	2,620	2,536	2,528	2,470	2,500
Argentina	1,681	1,771	1,645	1,800	1,710	1,710
Korea, South	1,561	1,566	1,575	1,523	1,540	1,530
Belarus	1,065	1,050	1,055	1,075	1,085	1,080
New Zealand	497	515	520	525	530	535
Taiwan	408	420	446	476	471	480
Philippines	86	96	117	119	124	130
Subtotal	156,994	161,766	164,014	166,618	169,715	171,940
United States	21,894	21,425	21,050	21,027	21,000	20,975
Total	178,888	183,191	185,064	187,645	190,715	192,915

Cheese Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Production						
European Union	9,796	9,872	10,155	10,232	10,350	10,400
Russia	951	970	983	1,059	1,075	1,085
Brazil	771	760	770	790	790	795
Argentina	514	444	523	488	544	550
Canada	497	510	515	523	540	550
United Kingdom	457	472	472	488	505	515
Mexico	396	419	437	446	448	452
New Zealand	386	370	365	350	390	385
Australia	348	366	364	373	360	370
Belarus	260	275	300	346	355	370
Others	281	284	285	289	294	308
Total Foreign	14,657	14,742	15,169	15,384	15,651	15,780
United States	5,733	5,914	5,959	6,012	6,206	6,299
Total	20,390	20,656	21,128	21,396	21,857	22,079
Total Dom. Consumption						
European Union	8,727	8,790	9,019	9,052	9,135	9,180
Russia	1,141	1,200	1,231	1,338	1,367	1,380
United Kingdom	780	804	801	794	760	825
Brazil	799	785	795	817	818	824
Canada	504	537	539	555	571	594
Mexico	511	526	551	549	565	569
Argentina	485	380	461	420	452	455
Japan	324	329	346	335	342	345
Australia	291	293	297	305	305	310
Ukraine	188	198	205	222	229	240
Others	459	453	477	516	586	627
Total Foreign	14,209	14,295	14,722	14,903	15,130	15,349
United States	5,494	5,675	5,751	5,750	5,956	6,080
Total	19,703	19,970	20,473	20,653	21,086	21,429

Cheese Trade: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Total Exports						
European Union	1,275	1,279	1,348	1,402	1,410	1,420
New Zealand	343	322	335	327	372	355
Belarus	189	211	244	275	295	310
Australia	171	172	160	153	160	165
United Kingdom	171	190	209	193	155	165
Argentina	44	61	61	70	80	85
Russia	25	24	26	30	40	45
Others	34	39	30	35	37	38
Total Foreign	2,252	2,298	2,413	2,485	2,549	2,583
United States	340	348	357	355	412	413
Total	2,592	2,646	2,770	2,840	2,961	2,996
Total Imports						
United Kingdom	494	522	538	499	410	475
Russia	226	250	273	311	335	340
Japan	273	286	303	292	295	295
China	108	108	115	129	170	200
European Union	191	197	212	222	195	200
Korea, South	125	124	131	148	155	160
Mexico	122	123	121	114	130	130
Others	277	265	277	309	351	359
Total Foreign	1,816	1,875	1,970	2,024	2,041	2,159
United States	138	138	139	126	187	190
Total	1,954	2,013	2,109	2,150	2,228	2,349

Butter Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Production						
India	5,400	5,600	5,850	6,100	6,300	6,500
European Union	2,031	2,069	2,125	2,153	2,134	2,145
New Zealand	525	550	525	500	470	485
Russia	270	256	268	282	270	280
Mexico	223	228	231	233	235	236
United Kingdom	161	140	194	194	205	210
Belarus	120	115	116	120	121	125
Canada	109	116	112	118	122	125
China	99	108	110	108	109	109
Brazil	83	85	85	82	82	83
Others	302	292	254	270	275	267
Total Foreign	9,323	9,559	9,870	10,160	10,323	10,565
United States	838	893	905	973	948	990
Total	10,161	10,452	10,775	11,133	11,271	11,555
Domestic Consumption						
India	5,387	5,577	5,803	6,080	6,275	6,470
European Union	1,862	1,898	1,901	1,889	1,939	1,935
Russia	357	346	384	402	396	394
China	195	226	198	230	252	277
Mexico	264	250	277	266	257	258
United Kingdom	188	155	197	206	205	215
Canada	121	124	141	141	147	149
Australia	115	117	104	105	105	105
Brazil	88	91	89	85	89	90
Japan	72	78	83	79	80	81
Others	209	186	201	200	193	197
Total Foreign	8,858	9,048	9,378	9,683	9,938	10,171
United States	849	898	940	978	985	1,011
Total	9,707	9,946	10,318	10,661	10,923	11,182

Note: Butter includes butter, butteroil and anhydrous milk fat on a butter equivalent basis.

Butter Trade: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Total Imports						
China	98	120	91	123	145	170
Russia	99	88	117	128	125	120
United Kingdom	84	80	76	77	60	60
Australia	35	42	40	43	40	45
European Union	62	76	78	52	55	45
Canada	22	22	25	24	28	30
Mexico	49	33	59	42	23	24
Taiwan	24	23	24	22	22	23
Japan	8	16	25	18	11	11
Brazil	5	6	5	3	7	7
Others	5	3	5	11	11	6
Total Foreign	491	509	545	543	527	541
United States	41	59	66	70	73	73
Total	532	568	611	613	600	614
Total Exports						
New Zealand	476	501	509	471	435	455
European Union	255	247	302	316	250	255
Belarus	73	78	67	69	75	75
United Kingdom	57	65	73	65	60	55
Argentina	4	11	15	21	30	35
India	15	33	47	20	25	30
Australia	16	17	18	16	23	20
Ukraine	28	29	16	9	8	8
Russia	3	3	2	3	3	3
China	2	2	3	1	2	2
Others	9	13	16	14	2	3
Total Foreign	938	999	1,068	1,005	913	941
United States	29	49	26	27	60	54
Total	967	1,048	1,094	1,032	973	995

Nonfat Dry Milk Production and Consumption: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Production						
European Union	1,555	1,568	1,556	1,590	1,550	1,560
India	570	600	635	660	680	700
New Zealand	402	410	375	362	330	355
Brazil	158	155	158	161	164	165
Australia	187	201	150	154	150	150
Japan	121	120	125	140	150	150
Belarus	110	122	126	126	125	127
Others	469	418	421	432	432	452
Total Foreign	3,572	3,594	3,546	3,625	3,581	3,659
United States	1,073	1,060	1,099	1,218	1,179	1,235
Total	4,645	4,654	4,645	4,843	4,760	4,894
Total Dom. Consumption						
European Union	854	992	834	795	755	755
India	576	572	601	636	668	682
China	276	299	358	355	461	498
Mexico	351	347	340	353	379	385
Indonesia	146	161	187	196	199	204
Brazil	189	184	183	187	188	191
Philippines	147	159	177	204	175	180
Others	830	780	736	716	747	762
Total Foreign	3,369	3,494	3,416	3,442	3,572	3,657
United States	425	362	414	393	309	315
Total	3,794	3,856	3,830	3,835	3,881	3,972

Nonfat Dry Milk Trade: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Total Imports						
China	247	280	344	336	440	475
Mexico	331	360	361	309	335	340
Indonesia	147	162	188	197	200	205
Philippines	157	159	177	179	165	175
Algeria	162	167	120	144	140	145
Russia	126	95	88	60	60	55
Brazil	31	29	25	26	24	26
Taiwan	24	23	23	24	25	24
European Union	55	46	56	36	25	20
United Kingdom	36	30	27	22	15	20
Others	112	111	108	101	76	81
Total Foreign	1,428	1,462	1,517	1,434	1,505	1,566
United States	1	1	1	1	1	1
Total	1,429	1,463	1,518	1,435	1,506	1,567
Total Exports						
European Union	794	826	946	831	820	825
New Zealand	401	358	373	356	350	355
Belarus	109	121	124	123	123	125
Australia	157	155	128	129	140	120
United Kingdom	56	60	82	72	55	65
India	10	43	8	5	30	32
Argentina	20	23	22	28	26	30
Canada	72	66	47	40	16	16
Ukraine	29	23	20	16	12	12
Russia	2	1	1	2	2	2
Others	32	59	67	4	6	4
Total Foreign	1,682	1,735	1,818	1,606	1,580	1,586
United States	606	712	701	810	887	917
Total	2,288	2,447	2,519	2,416	2,467	2,503

Whole Milk Powder Production And Consumption: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Production						
New Zealand	1,380	1,450	1,490	1,570	1,615	1,600
China	1,080	965	1,052	992	950	970
Brazil	596	585	596	590	594	595
European Union	733	684	697	708	630	590
Argentina	170	192	188	213	235	240
Mexico	139	119	120	122	123	124
Indonesia	76	81	82	85	96	100
Chile	58	62	70	73	65	72
Belarus	50	50	45	49	58	60
Russia	63	56	65	55	52	55
Others	111	98	77	58	67	61
Total Foreign	4,456	4,342	4,482	4,515	4,485	4,467
United States	56	65	64	63	63	63
Total	4,512	4,407	4,546	4,578	4,548	4,530
Total Dom. Consumption						
China	1,598	1,534	1,722	1,585	1,803	1,919
Brazil	664	652	657	678	641	648
European Union	363	381	424	390	330	315
Algeria	235	245	250	248	210	215
Indonesia	128	142	135	134	156	167
Mexico	110	103	106	105	114	113
Argentina	75	75	84	80	81	90
Chile	65	66	71	75	77	79
Russia	91	100	110	94	79	78
Australia	32	35	33	40	42	44
Others	148	137	145	114	104	106
Total Foreign	3,509	3,470	3,737	3,543	3,637	3,774
United States	42	31	36	34	37	28
Total	3,551	3,501	3,773	3,577	3,674	3,802

Whole Milk Powder Trade: Summary For Selected Countries

1,000 Metric Tons

	2017	2018	2019	2020	2021	2022 Dec
Total Imports						
China	470	521	671	644	880	880
Algeria	228	271	233	233	200	205
Indonesia	47	59	54	51	66	67
Brazil	73	68	61	89	53	60
Australia	28	28	37	43	38	40
Taiwan	32	34	32	36	33	35
Philippines	19	23	32	29	25	25
Russia	49	27	46	31	27	25
Chile	12	8	3	9	7	9
Mexico	4	7	3	3	7	8
Others	56	56	58	29	13	8
Total Foreign	1,018	1,102	1,230	1,197	1,349	1,362
United States	21	7	9	13	9	11
Total	1,039	1,109	1,239	1,210	1,358	1,373
Total Exports						
New Zealand	1,342	1,369	1,536	1,533	1,620	1,600
European Union	404	346	315	345	310	280
Argentina	71	135	97	148	138	145
Australia	55	55	42	37	52	50
Belarus	29	33	23	27	38	39
Mexico	33	23	17	20	16	19
Brazil	5	1	0	1	6	7
Ukraine	4	4	9	4	5	4
Chile	4	4	4	2	1	2
Russia	1	0	0	1	1	2
Others	2	2	2	3	3	1
Total Foreign	1,950	1,972	2,045	2,121	2,190	2,149
United States	27	48	39	39	38	46
Total	1,977	2,020	2,084	2,160	2,228	2,195