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Data Thru August 2022

UPDATE

 Belarus exports excluded from analysis as data is no longer available

USDEC International Demand Analysis

A Note from the Authors

- What is this? This is USDEC's International Demand Analysis from our Economics Department, published monthly. This report outlines the latest global dairy trade trends and data combined with our own commentary analyzing demand in the key markets for cheese, NFDM/SMP, whey (0404.10) and WPC80+, alongside shorter summaries for lactose, butterfat and WMP all with a forward-looking lens and US exporter viewpoint.
- All comparisons are year-over-year unless otherwise noted.
- If you have any questions, comments or suggestions on how to improve the report, send us an email at wloux@usdec.org or scain@usdec.org.

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- c. <u>WMP</u>

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Global Dairy Demand Market Commentary

OVERVIEW

KEY TAKEAWAYS

- Global dairy trade posted the first month of growth in 2022, increasing 6% (+37,259 MT) on a milk solids equivalent (MSE) basis.
- From a supply perspective, while the U.S. did its part by increasing its exports by 6% (+12,147 MT MSE), New Zealand's 55% (+46,461 MT MSE) gain was the primary engine of growth for the month as the country cleared out inventories ahead of the 2022/23 production season.
- However, despite two positive months in a row from New Zealand, year-to-date (YTD) exports from the country still trail prior year levels by 8% (-147,509 MT MSE). Given that NZ's 2022/23 milk production season is off to a rough start, we expect the surprisingly strong August exports from the country were a one-month aberration rather than a fundamental change in market conditions.
- Additionally, **August is the seasonal low ebb of global trade** as exports originating in the Southern Hemisphere, particularly New Zealand, slow with less product available.

- In a positive change from prior months, China returned to growth in August, climbing 5% (+6,610 MT MSE). While certainly better than further declines, the year-over-year comparisons are significantly more favorable and suggest demand stabilization rather than demand growth.
- In contrast, Southeast Asia, which grew 8 out of the previous 9 months, faltered slightly, falling 4% (-4,869 MT MSE).
- Overall, the most optimistic data came from the Middle East-North Africa (MENA) and Latin America, both of which posted strong gains: +11%, +9,213 MT MSE for MENA and +34%, +30,215 MT MSE for Latin America.
- Lack of milk supplies meant European exports declined in most product categories though cheese holding virtually flat (-0%, -334 MT), as well as gains in infant formula (+21%, +7,423 MT) and MPC (+57%, +3,932 MT), suggest growing focus on high value products by European manufacturers.

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Global Dairy Demand Market Commentary

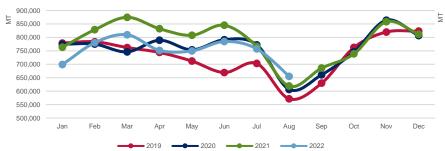
COMPETITOR ASSESSMENT

- New Zealand's sharp jump in trade in August largely came from an increase in whole milk powder exports (+96%, +36,275 MT), though cheese, butterfat and fluid milk/cream did gain slightly as well.
- As opposed to past months when increases in NZ exports went nearly exclusively to China NZ growth was widely distributed in August, particularly for WMP. Southeast Asia and MENA led the way for NZ with WMP exports more than doubling to both markets (+10,042 MT and 8,787 MT, respectively) though China (+38%, +6,179 MT), Central America/Caribbean (+896%, +3,841 MT) and South Asia (+141%, +2,287 MT) impressed as well. However, as mentioned in the overview, the sharp gain is likely an aberration aided by favorable comparisons and the clearing out of inventory ahead of the new production season.
- European exports, on the other hand, continued their steady decline in August, falling 7% (-20,086 MT MSE). Keeping with prior trends, EU27+UK exports faltered to three of their key customers, China, Southeast Asia, and Sub-Saharan Africa, while MENA was prioritized. In August, EU27+UK trade increased to MENA by 9% (+4,981 MT MSE), while exports declined to China by 16% (8,594 MT MSE), to Southeast Asia by 14% (-6,760 MT MSE) and to Sub-Saharan Africa by 28% (-8,547 MT MSE).

LOOKING AHEAD

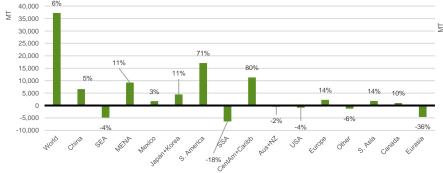
- While the return to growth for global dairy trade is undoubtedly positive, we remain skeptical that August marks the start of a new trend.
- Global milk supplies remain short even with a rebound in the U.S. and improved year-over-year comparisons in Europe and New Zealand. Structural factors and high input costs will continue to limit expansion of global milk supply beyond the U.S. As we wrote last month, "an acceleration of global trade and a return to growth will require additional milk supply."
- Additionally, with weak milk supply keeping prices elevated (August set a new record of \$6.18 per kg of milk solids exported) and stubbornly high inflation and rising interest rates slamming the brakes on the global economy, **a downturn in demand should be expected.**
- And yet, many rays of optimism remain:
 - After two years of declining demand, MENA has quietly increased purchases for five straight months and appears poised for growth in 2022 with an improved economic outlook.
 - Latin America is booming (+12%, +68,783 MT MSE over the last six months).
 - The U.S. continues to claim market share in key markets and around the globe as the sole dairy supplier showing the capacity and appetite for expansion.
 U.S. DAIRY EXPORT COUNCIL

Executive Summary: August 2022

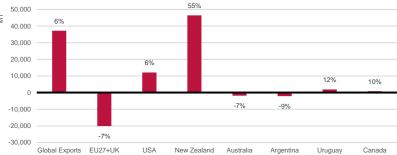


Monthly Global Exports of Total Milk Solids to World (30-Day Months)

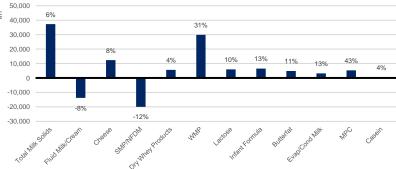
YOY Change in Global Total Milk Solids Trade: Latest Month (Aug), Ranked by Largest Market







YOY Change in Global Dairy Trade: Latest Month (Aug), Ranked by Total Product Trade



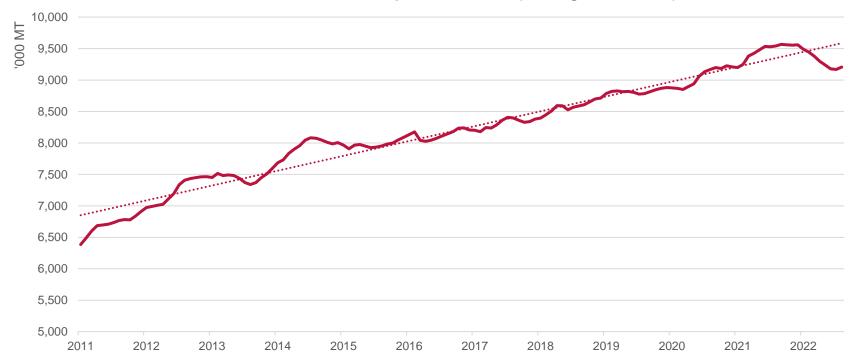
Source: USDEC, Trade Data Monitor

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Global Dairy Trade

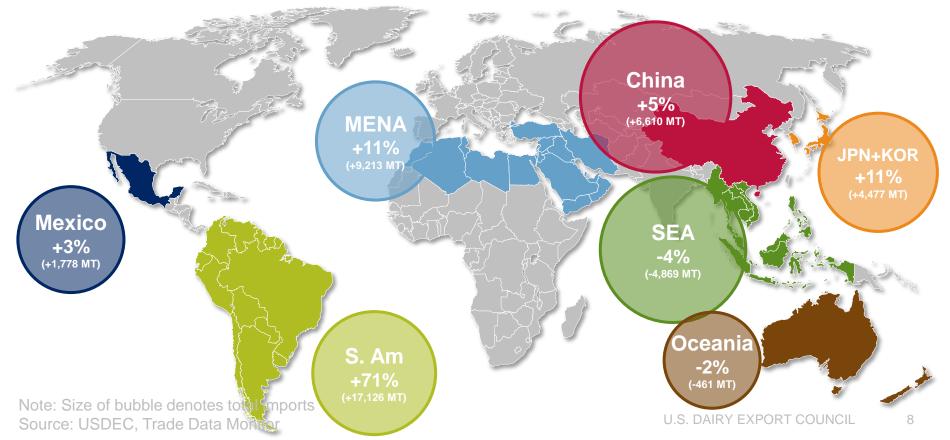
Global Total Milk Solids Exports to World (Rolling 12 Months)



Source: USDEC, Trade Data Monitor

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Month of August 2022, Milk Solids Equiv.



Average Global Export Price

Global Average \$/KG of Milk Solids Exported



Source: USDEC, Trade Data Monitor

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U.S. Dairy Export Council Ingredients | Products | Global Markets

Cheese



Cheese Market Commentary

OVERVIEW

- Global cheese exports jumped 8% (+12,340 MT) in August after being down the same percentage last month (-8%, -14,182 MT).
- An encouraging dynamic in the August cheese data was the widespread increase in imports from many critical markets. Japan and Korea both saw strong growth, up 14% (+2,733 MT) and 46% (+4,586 MT) respectively. Mexico (+16%, +1,818 MT), Southeast Asia (+23%, +2,175 MT) and China (+19%, +1,703 MT) also saw strong growth in August.
- Central America & Caribbean, which had been a consistent region of growth for cheese imports over the last 18 months, returned to growth in August after posting a small decline in July. Global cheese exports to the region jumped +11% (+794 MT) in August, continuing what has been a pleasant surprise for global dairy markets.

KEY TAKEAWAYS

- Even with the jump in August, global cheese trade still lags last year's volume with year-to-date trade down slightly (-0.7%). This stagnation was expected after 2021's dramatic uptick in cheese trade as economies emerged from the pandemic. However, given the contraction in many other product categories, a decline of less than 1% should be seen as relatively bullish.
- Mexico's cheese demand has been particularly positive with steady growth continuing. An improved peso and tight milk supplies within Mexico leading to lower output of dairy products has contributed to the increase utilization of imported cheese by foodservice, but we also believe underlying consumption of cheese in Mexico is also on the rise.
- The U.S. continues to fill an increasing amount of global cheese demand this year as production in the EU and New Zealand struggle to keep pace with demand. U.S. cheese exports are up 13% year-to-date; taking share from both the EU27+UK (-4%) and New Zealand (-9%).
 U.S. DAIRY EXPORT COUNCIL

Cheese Market Commentary

COMPETITOR ASSESSMENT

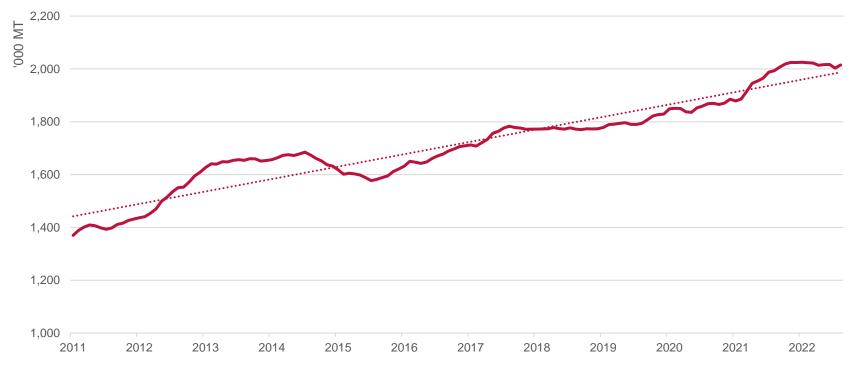
- EU27+UK cheese exports to the world were essentially flat in August with exports falling just 0.4% (-334 MT). Strong increases in exports to Japan and South Korea (+19%, +2,707 MT) held up their overall volume even as EU27+UK exports to the US (-7%, -882 MT), China (-26%, -907 MT) and Eurasia (-16%, -906 MT) fell in August.
- New Zealand manufacturers took advantage of increased processing flexibility during shoulder season to increase cheese production, highlighted by the country's cheese exports climbing 61% (+7,853 MT) in August. With more available supply, NZ exports nearly doubled to Japan and South Korea (+92%, +2,099 MT) and nearly tripled to China (+177%, +3,923 MT). The month also saw a doubling of trade to Southeast Asia (+102%, +1,987 MT). August is a seasonally lower month for export volume coming out of New Zealand. As such, while exports were up significantly in August, the volumes are on average about half the size of any prior month.

LOOKING AHEAD

- As the world edges closer to a global recession, cheese demand may come under threat from inflationary pressures and challenged incomes. While cheese demand eased back to trend in recent months after an accelerated growth in trade through much of 2021, the data suggests consumers around the world still want cheese and are willing to pay for it.
- China's cheese imports increased for the first time since January. Optimistically, the growth could signal a return to the market by Chinese buyers. However, we remain skeptical: more favorable year-over-year comparisons were likely a bigger factor, and COVID-19 restrictions plus a challenged supply chain have dampened demand across most other dairy products. We will keep a close eye on China moving forward, but given the headwinds, we remain hesitant of declaring the growth in China the start of a new trend.

Global Overview: Cheese

Global Cheese Exports to World (Rolling 12 Months)

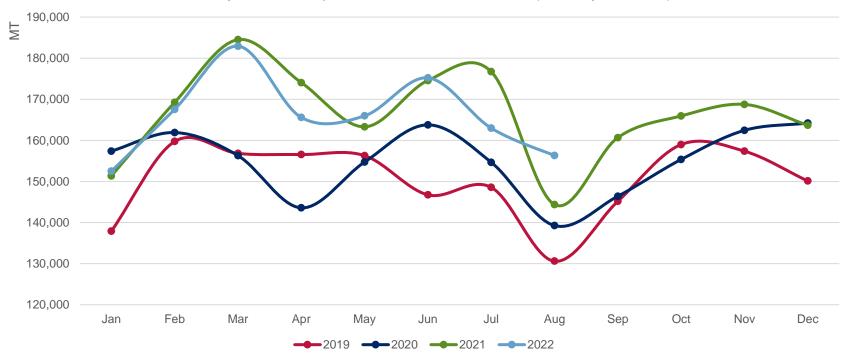


Source: USDEC, Trade Data Monitor

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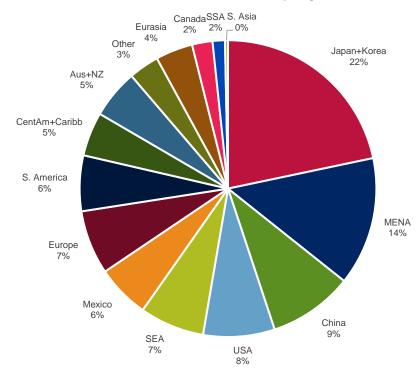
Global Overview: Cheese

Monthly Global Exports of Cheese to World (30-Day Months)

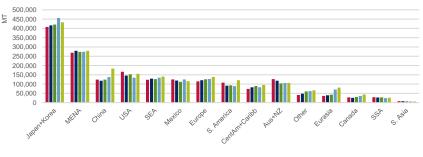


Global Overview: Cheese – Last 12 Months

Global Cheese Trade: L12M, Ranked by Largest Market

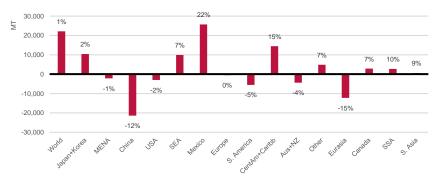


Global Cheese Trade: Last 12 Months, Ending Aug





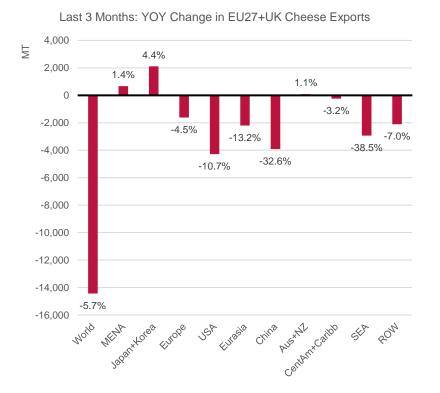




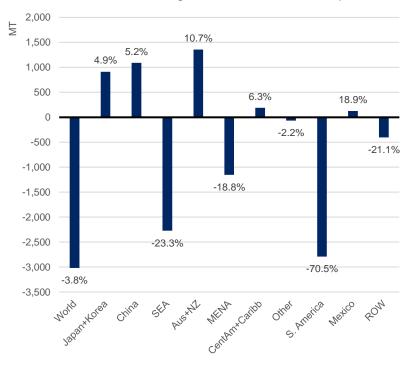
Source: USDEC, Trade Data Monitor

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Trade Flows: Cheese

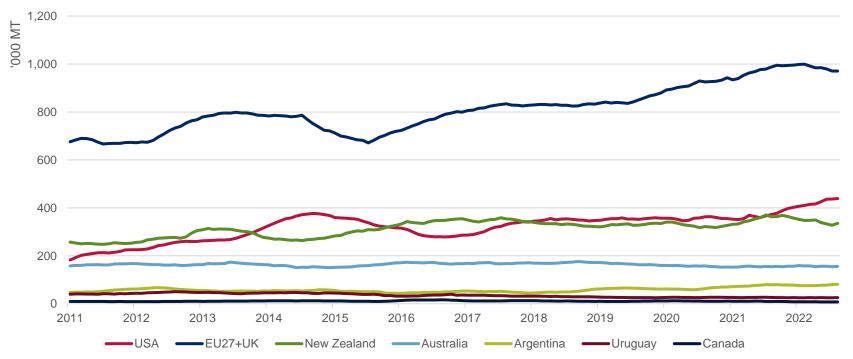


Last 3 Months: YOY Change in New Zealand Cheese Exports



Trade Flows: Cheese

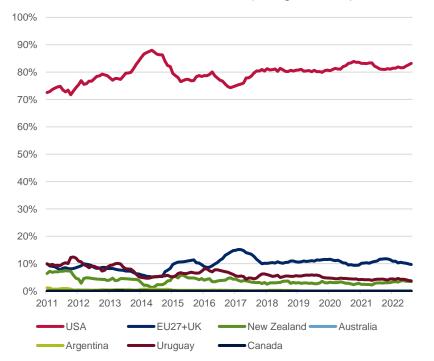
Cheese Exports to World (Rolling 12 Months)



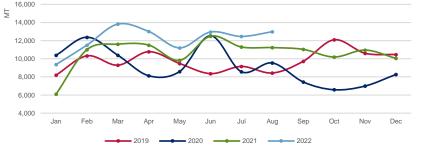
Source: USDEC, Trade Data Monitor

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Mexico

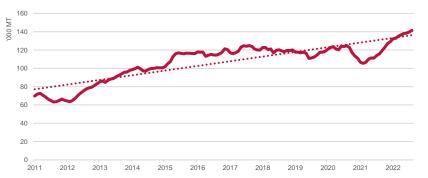


Cheese Market Share in Mexico (Rolling 12 Months)

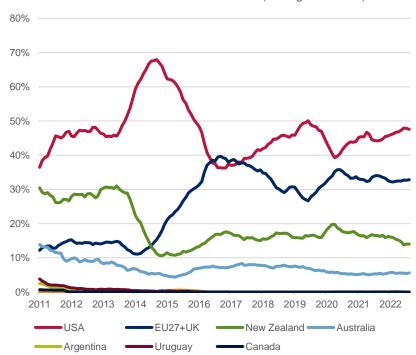


Monthly Global Exports of Cheese to Mexico (30-Day Months)



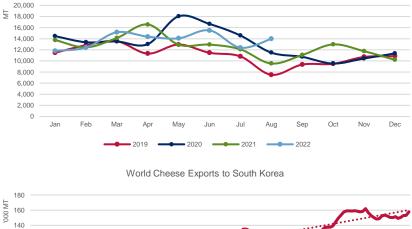


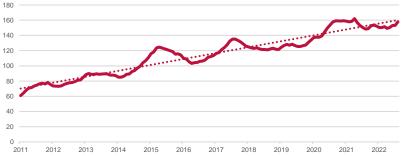
Korea



Cheese Market Share in South Korea (Rolling 12 Months)

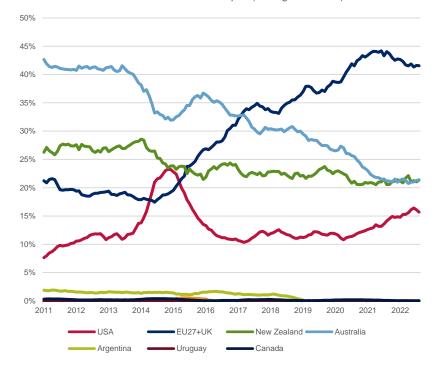
Monthly Global Exports of Cheese to South Korea (30-Day Months)





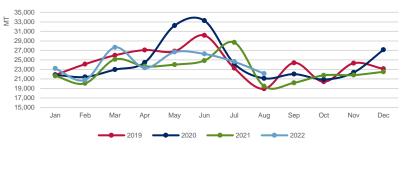
7000 MT

Japan



Cheese Market Share in Japan (Rolling 12 Months)

Monthly Global Exports of Cheese to Japan (30-Day Months)



World Cheese Exports to Japan



Australia

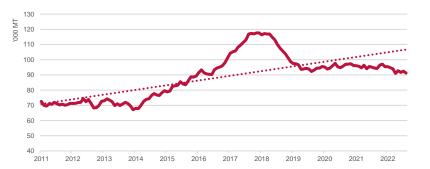


Cheese Market Share in Australia (Rolling 12 Months)

10,000 9,000 7,000 6,000 5,000 4,000 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec -2019 -2020 -2021 -2022

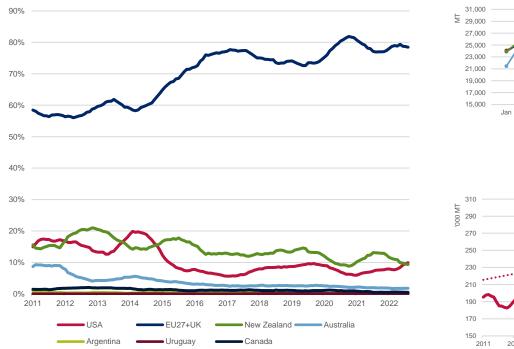
Monthly Global Exports of Cheese to Australia (30-Day Months)

11,000



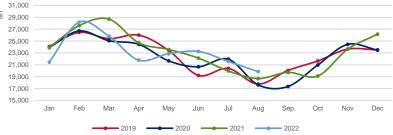
World Cheese Exports to Australia

MENA



Cheese Market Share in MENA (Rolling 12 Months)

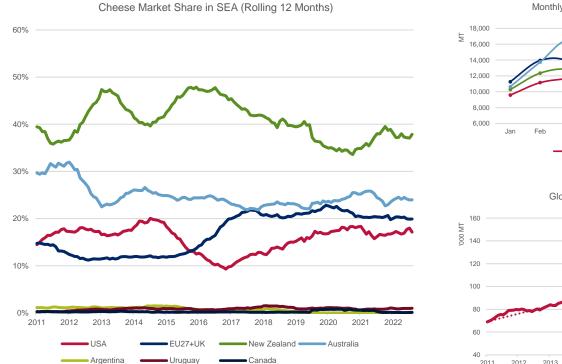
Monthly Global Exports of Cheese to MENA (30-Day Months)



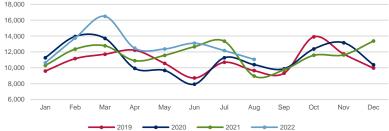




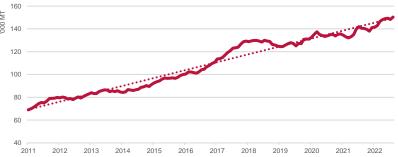
Southeast Asia



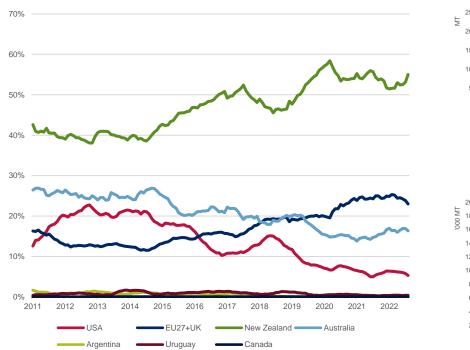
Monthly Global Exports of Cheese to SEA (30-Day Months)



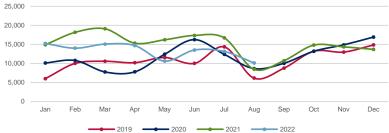




China

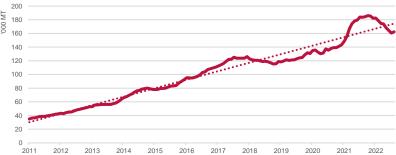


Cheese Market Share in China (Rolling 12 Months)



Monthly Global Exports of Cheese to China (30-Day Months)

Global Cheese Exports to China (Rolling 12 Months)





NFDM/SMP

NFDM/SMP Market Commentary

OVERVIEW

- Global NFDM/SMP exports dropped 12% (-19,954 MT) in August, pushing the overall year-to-date decline in NFDM/SMP exports down to -8% (-119,422 MT)
- Although we held optimism that the growth in trade to Southeast Asia would persist after a strong July, the region's purchases fell 28% (-15,758 MT) in August, continuing the month-to-month rollercoaster for the market.
- Aside from Southeast Asia, China contributed heavily to the decline as SMP/NFDM exports to the country lagged 29% yearover-year (-7,017 MT), further highlighting the demand troubles for the market as the country's economy wavers.
- The strong decline in Southeast Asia and China were enough to offset gains in MENA (+5%, +1,381 MT), Central America & Caribbean (+113%, +4,129 MT) and South America (+39%, +2,167 MT).

KEY TAKEAWAYS

- The global shortage of NFDM/SMP continues to hamper trade expansion. The shortage of product pushed prices to the highest levels since 2014, and buyers have pushed back at these prices – ultimately leading to lower trade volumes.
- China's demand lagged again in August, which we attribute to high global prices, despite the recent easing, and underlying economic difficulties. Our calculations estimate that SMP inventory in the country has returned to more normal levels, but purchasing has not picked up.
- Southeast Asian imports were down significantly in August, suggesting the high prices we saw earlier in the year burned off some demand in the region. Southeast Asian imports of NFDM/SMP have moderated since prices started their runup during the onset of COVID-19, suggesting more hand-to-mouth buying.

NFDM/SMP Market Commentary

COMPETITOR ASSESSMENT

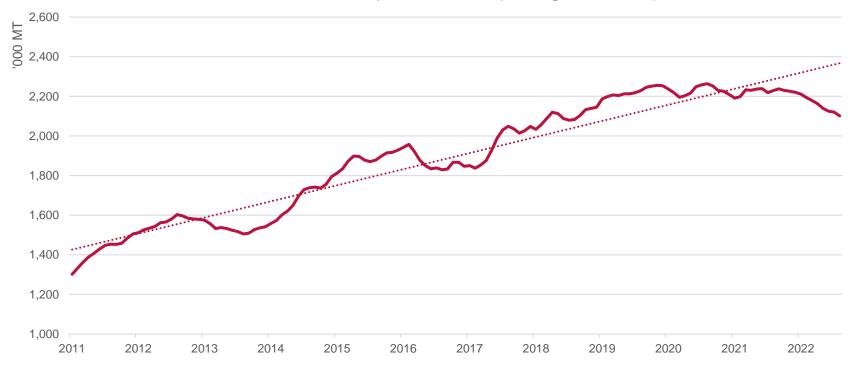
- EU27+UK NFDM/SMP exports fell 12% in August, driven by lack of supply. Large declines in exports to Southeast Asia (-23%, -4,299 MT) and China (-48%, -6,198 MT) offset gains in Middle East-North Africa (+9%, +2,055 MT), South Asia (+111%, +1,313 MT) and Central America & Caribbean (+202%, +1,752 MT). We expect to see weak SMP exports from Europe continue through winter.
- New Zealand NFDM/SMP exports in August were roughly ٠ flat, increasing just 1% (+92 MT). NZ did increase its shipments to Southeast Asia slightly (+15%, +752 MT) even as buyers in China (-18%, -590 MT) and Australia (-42%, -220 MT) pulled back. In general, New Zealand's SMP exports in August 2022 looked a lot like August 2021.

LOOKING AHEAD

- Global NFDM/SMP production continues to be tight, and we do not expect significant shift in this dynamic heading into the final quarter of the year - or even 2023 unless U.S. production ramps up sharply and Class IV maintains a strong premium over Class III. Even if we do see price weakness and buyers pull back, international SMP prices are roughly 40% higher than they were pre-pandemic. This means that even if prices do ease, they will still be relatively expensive compared to recent history as the weak global production outlook will likely limit downside movement.
- China's import data continues to be weak, but with easing prices and more normal inventory levels. Chinese buyers may start to return to the market. If the frequency and severity of COVID-19 lockdowns ease, perhaps that would encourage more buying activity. Unfortunately, we have not seen evidence of a recovery yet, just stabilization as we enter the seasonal peak of China's imports.
- Questions remain around European SMP production as the bloc heads into winter with an exceptionally high cost of natural gas. High natural gas prices, if gas even is available, are likely to reduce margins for **EU SMP processors,** further limiting available supply for international customers.

Global Overview: NFDM/SMP

Global SMP/NFDM Exports to World (Rolling 12 Months)

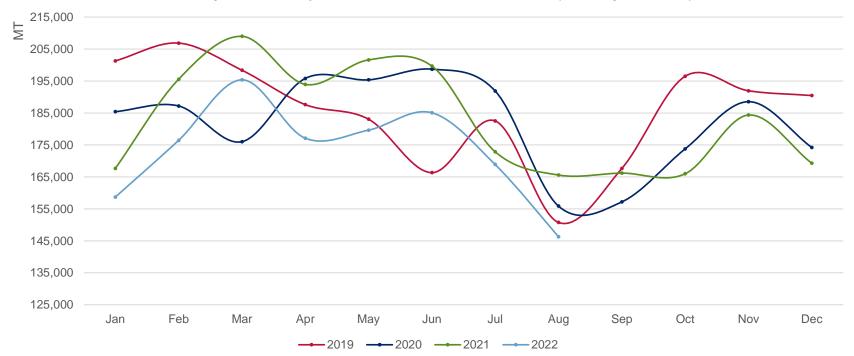


Source: USDEC, Trade Data Monitor

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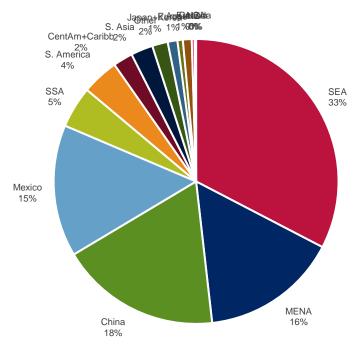
Global Overview: NFDM/SMP

Monthly Global Exports of SMP/NFDM to World (30-Day Months)

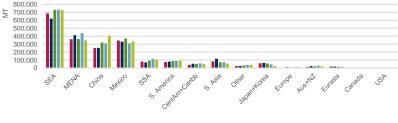


Global Overview: NFDM/SMP – Last 12 Months

Global SMP/NFDM Trade: L12M, Ranked by Largest Market



Global SMP/NFDM Trade: Last 12 Months, Ending Aug



■2016-17 ■2017-18 ■2018-19 ■2019-20 ■2020-21

YOY Change in Global SMP/NFDM Trade: L12M, Ranked by Largest Market

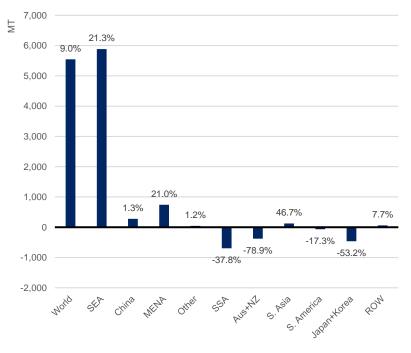


Trade Flows: NFDM/SMP

Last 3 Months: YOY Change in EU27+UK SMP/NFDM

Exports 15,000 МΤ 14.7% 10,000 5.000 31.1% ^{85.5%} 59.5% 3.0% 0 -76.7% -59.2% -5.000 -18.5% -10,000 -21.1% -15.000 -20,000 -46.6% -25,000 5h 5. his realing the south of -12.6% -30.000 Notid MENA China SEA SSA



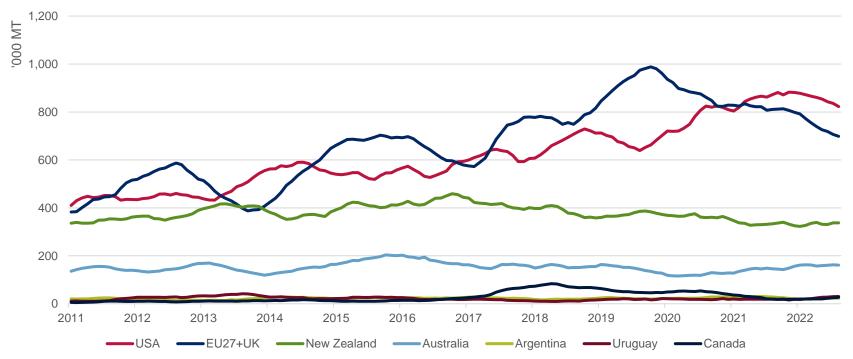


Source: USDEC, Trade Data Monitor

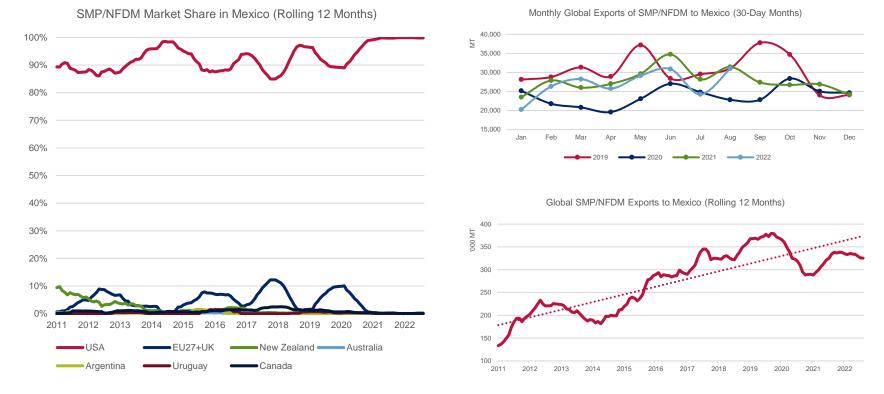
U.S. DAIRY EXPORT COUNCIL 31

Trade Flows: NFDM/SMP

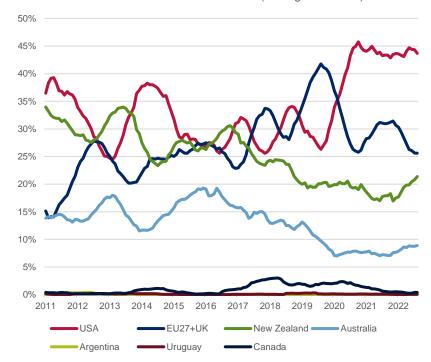
SMP/NFDM Exports to World (Rolling 12 Months)



Mexico

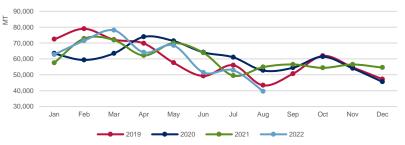


Southeast Asia

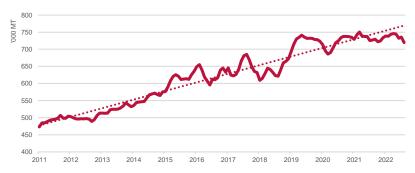


SMP/NFDM Market Share in SEA (Rolling 12 Months)

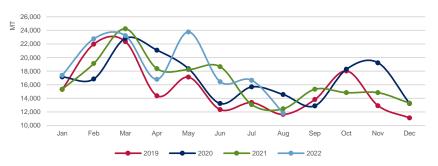
Monthly Global Exports of SMP/NFDM to SEA (30-Day Months)





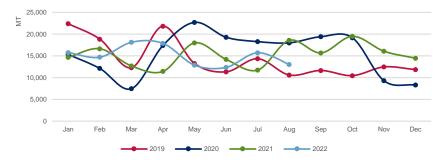


Southeast Asia: Country Breakdown

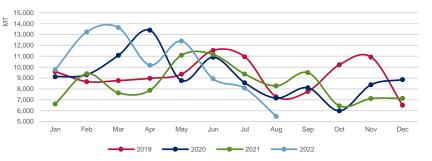


Monthly Global Exports of SMP/NFDM to Indonesia (30-Day Months)

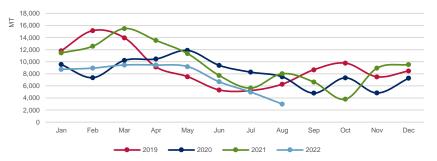
Monthly Global Exports of SMP/NFDM to Philippines (30-Day Months)



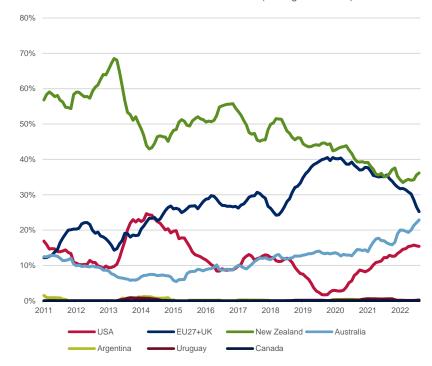
Monthly Global Exports of SMP/NFDM to Malaysia (30-Day Months)



Monthly Global Exports of SMP/NFDM to Vietnam (30-Day Months)

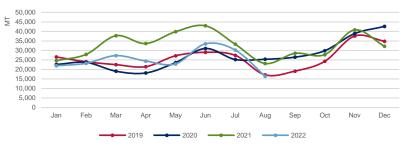


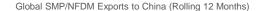
China

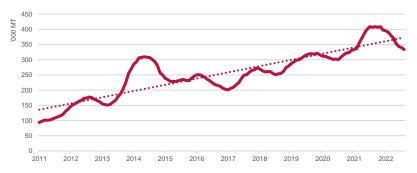


SMP/NFDM Market Share in China (Rolling 12 Months)

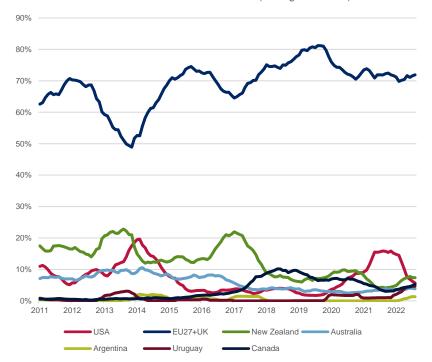
Monthly Global Exports of SMP/NFDM to China (30-Day Months)





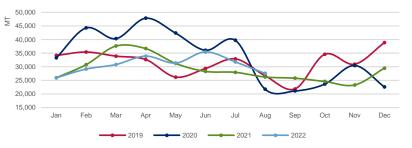


MENA



SMP/NFDM Market Share in MENA (Rolling 12 Months)

Monthly Global Exports of SMP/NFDM to MENA (30-Day Months)



Global SMP/NFDM Exports to MENA (Rolling 12 Months)





Whey Products (0404.10)

Whey (0404.10) Market Commentary

OVERVIEW

- Whey trade has turned a corner over the last four months. Whey products traded under the HS code 0404.10 (predominantly low-protein whey varieties of sweet whey and permeate) climbed 7% (+7,473 MT) in August, almost entirely led by gains from the U.S. suppliers.
- A 22% (+9,484 MT) increase in global shipments to China, the highest single month in over a year, is particularly welcome news. Even after a year of declining trade, China still accounts for over a third of global whey imports. As such, any improvement in demand from China is welcome news for global demand.
- As an interesting aside to keep an eye on, in 2022, Argentina the only other whey exporter to grow in August – is supplying a surprisingly resurgent Brazil (+37%, +2,885 MT YTD) after nearly a decade of declining whey demand in country. While still nowhere near the size of many Asian markets, Brazil is the second largest importer of whey in Latin America after Mexico, importing over 20,000 MT annually of low protein whey products.

KEY TAKEAWAYS

- The correlation between pork prices and China's whey purchases continues to hold. While pork prices are nowhere near the highs during the worst of the African Swine Fever outbreak, they have recovered over the past several months. As such, improved margins for pork producers in China should support whey utilization and imports moving forward.
- Outside of China, there has been a substantial jump in demand from Vietnam that continued into August (+22%, +10,549 MT). Over the past two years, as the country's pork industry recovered from African Swine Fever, whey demand grew consistently from a low ebb of roughly 32,000 MT on an annualized basis in late 2019 to nearly 62,000 MT annualized today. The U.S. has been the primary beneficiary of the growth, holding a majority market share.

Whey (0404.10) Market Commentary

COMPETITOR ASSESSMENT

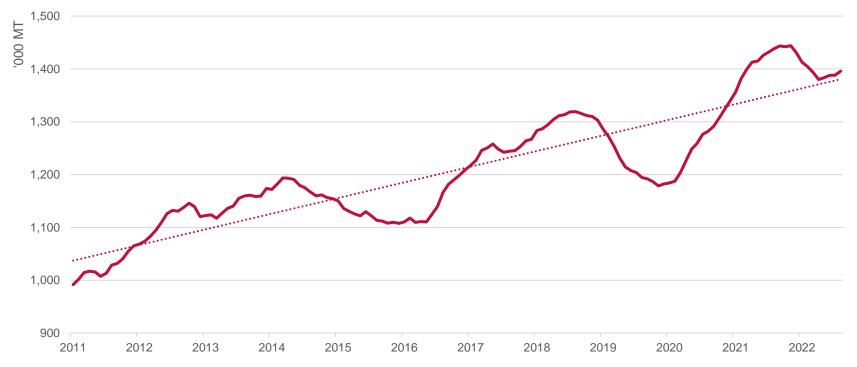
- While every major exporter except for the U.S. and Argentina which increased exports by 8% (+358 MT) – declined, none were particularly steep. Canadian shipments fell the most, but by less than 1,000 MT (-19%, -952 MT). European exports of low protein whey dropped by just 693 MT in August, Uruguay by 768 MT, Australia by 642 MT, and New Zealand by 380 MT.
- Preferred destinations varied slightly by supplier. EU27+UK shipped more to New Zealand (+1,487 MT), Vietnam (+932 MT) and China (+850 MT) but pulled back from Thailand (-1,129 MT), South Africa (-801 MT) and Egypt (-616 MT). Argentina favored Brazil (+820 MT), and Canada sent product to Vietnam (+693 MT) even as the U.S.' northern neighbor retreated from the Philippines (-622 MT).

LOOKING AHEAD

- Bills of lading data obtained by USDEC suggests that whey permeate has been the driver behind the increase in whey to China over the last six months while sweet whey volumes have fallen sharply, at least supplied by the U.S.
- Higher prices of sweet whey seem to have supported switching to permeate where possible. Looking ahead, with sweet whey prices easing and product increasingly available (if still not plentiful), a rebound in sweet whey trade should be anticipated for 2023 with permeate leading the way through the end of year... provided, of course, that rising pork prices continue to incentivize increased whey utilization.

Global Overview: Whey (0404.10)

Global Whey (0404.10) Exports to World (Rolling 12 Months)

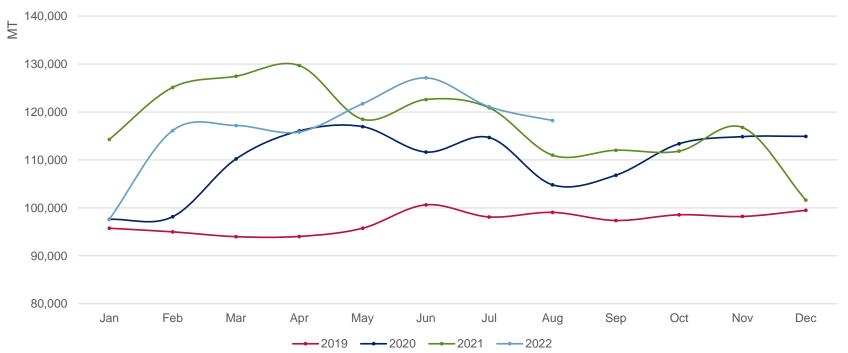


Source: USDEC, Trade Data Monitor

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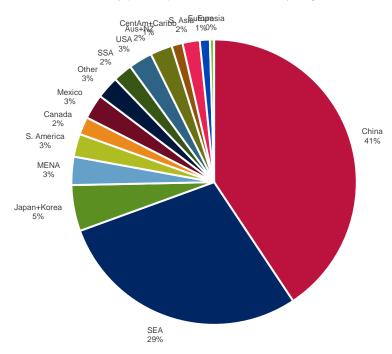
Global Overview: Whey (0404.10)

Monthly Global Exports of Whey (0404.10) to World (30-Day Months)

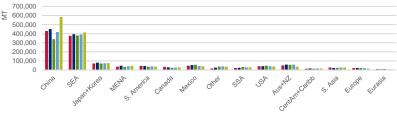


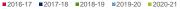
Global Overview: Whey (0404.10) – Last 12 Months

Global Whey (0404.10) Trade: L12M, Ranked by Largest Market

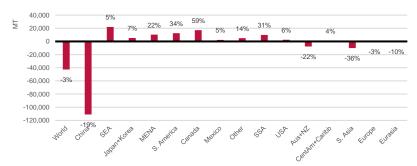


Global Whey (0404.10) Trade: Last 12 Months, Ending Aug

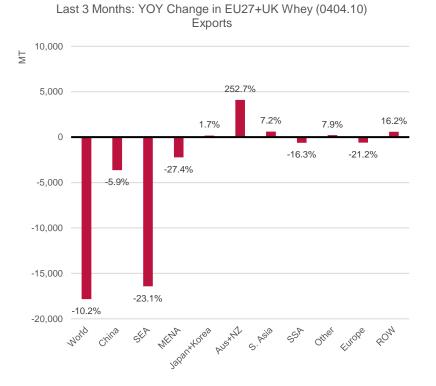




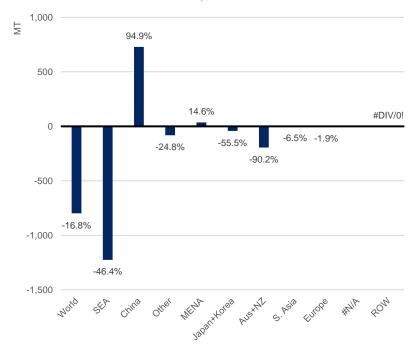
YOY Change in Global Whey (0404.10) Trade: L12M, Ranked by Largest Market



Trade Flows: Whey (0404.10)



Last 3 Months: YOY Change in New Zealand Whey (0404.10) Exports

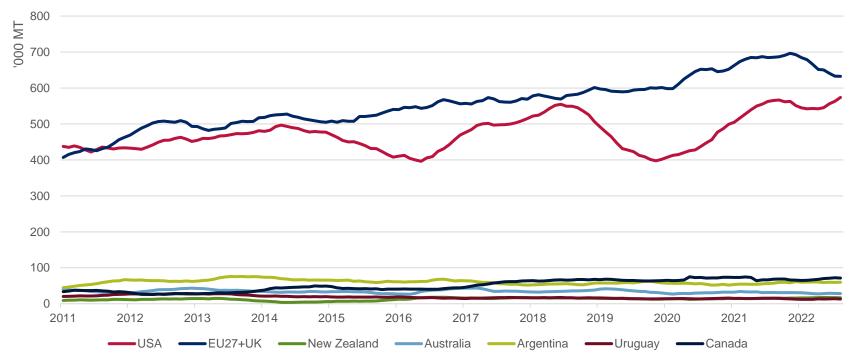


Source: USDEC, Trade Data Monitor

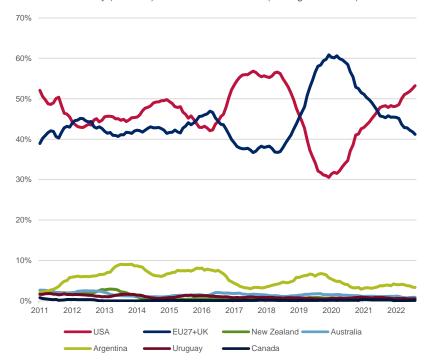
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Trade Flows: Whey Products

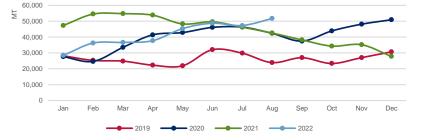
Whey (0404.10) Exports to World (Rolling 12 Months)



China



Whey (0404.10) Market Share in China (Rolling 12 Months)

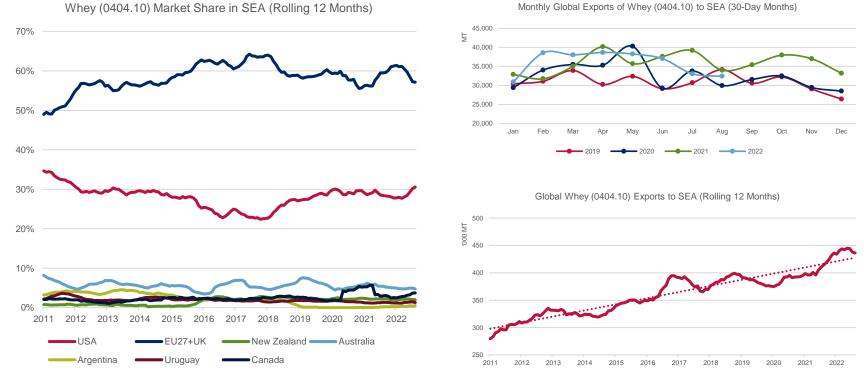


Monthly Global Exports of Whey (0404.10) to China (30-Day Months)



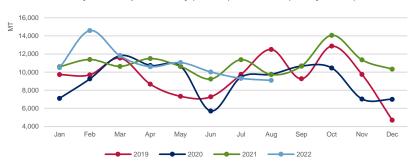


Southeast Asia



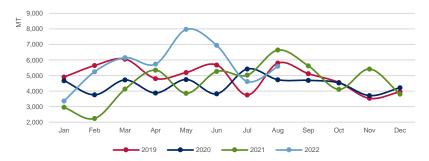
Monthly Global Exports of Whey (0404.10) to SEA (30-Day Months)

Southeast Asia: Country Breakdown

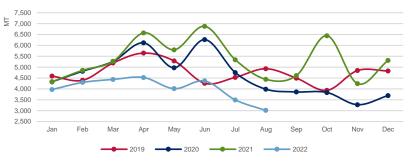


Monthly Global Exports of Whey (0404.10) to Indonesia (30-Day Months)

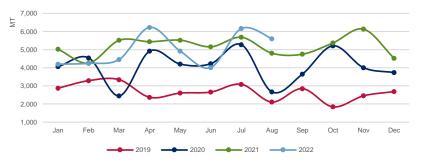
Monthly Global Exports of Whey (0404.10) to Philippines (30-Day Months)



Monthly Global Exports of Whey (0404.10) to Thailand (30-Day Months)



Monthly Global Exports of Whey (0404.10) to Vietnam (30-Day Months)





WPC80+ (3502.20)

WPC80+ Market Commentary

OVERVIEW

- The acceleration of global WPC80+ trade seen in 2021 as global consumers chased protein concentrates is decisively over. Global trade of WPC80+ has declined in all but one month in 2022. August was no exception as trade fell 15% (-1,813 MT).
- On an annualized basis, global trade remains above trend and the U.S. retains a market share greater than 40%, but the demand outlook is clearly challenged. Year-to-date, trade to most of the major markets has declined. Trade to China the largest market by a significant margin is down 16% YTD (-4,220 MT); exports to South Asia (primarily India) are down 22% (-2,208 MT) and Southeast Asia purchases trail prior year levels by 16% (-1,182 MT).
- Instead, Japan, Korea and Brazil are the only major markets to show substantial growth in 2022. Japan is up 14% (+2,275 MT), South Korea 32% (+1,203 MT) and Brazil 48% (+946 MT).

KEY TAKEAWAYS

- Very few markets managed to eke out gains in August with the EU27+UK purchasing an additional 262 MT and China's 154 MT increase being the two largest.
- While internationally traded prices for WPC80+ were below the June peak of \$14,596/MT, they remained elevated at \$13,163/MT in August – 60% higher than 2021 average of \$8,254/MT when trade was booming.
- The combination of high prices dissuading importers from increasing whey protein utilization – even when health and wellness remains a key trend at the consumer level – and lack of exportable supply in Europe and the U.S. (as proteins stay in the domestic market) will likely continue to limit global trade growth of WPC80+.

WPC80+ Market Commentary

COMPETITOR ASSESSMENT

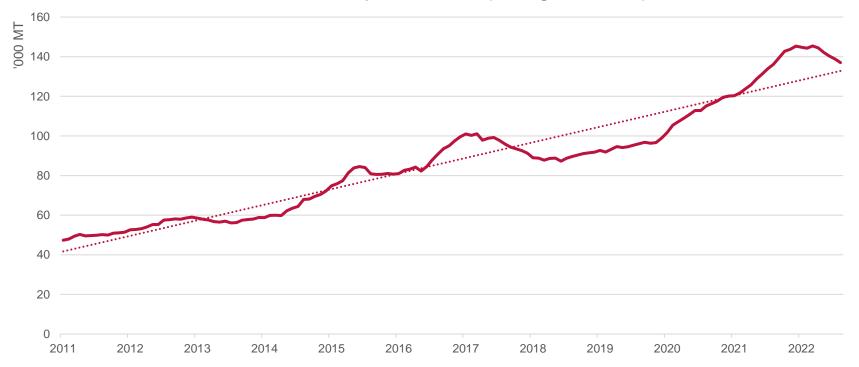
- As mentioned in the other product categories, New Zealand's August export data reflects the country clearing out inventory ahead of the new season's production. NZ WPC80+ exports increased by 39% in August, a gain of 318 MT. Nearly all of the incremental growth in WPC80+ trade from the country went to China (+218%, +281 MT).
- While not a large increase in volume terms, NZ's gain was a noticeable contrast from the declines of the U.S. and the EU27+UK.
- EU27+UK shipments dropped by 18% (-836 MT) and, as mentioned in the key takeaways, imported an additional 262 MT – highlighting the shortage of the local market.
- With less product available, European supplies declined to nearly all their primary markets – shipments to the U.S. dropped 33% (-181 MT), South Asia fell by 28% (-206 MT), Southeast Asia declined by 49% (-181 MT) and Japan and Korea fell a combined 19% (-172 MT),

LOOKING AHEAD

- The outlook for WPC80+ trade remains challenged as we head into the fourth quarter of 2022. Supply, while recovering in the U.S., is still tight globally as European milk production struggles. Additionally, while prices have come down, they are still expensive by historic standards, particularly in an uncertain economic environment where food and beverage manufacturers are likely looking to cut costs rather than move up the value chain.
- Looking ahead to 2023, it is hard to envision a rapid expansion in global WPC80+ trade unless production growth in the U.S. and economic hardship reducing domestic consumption leads to an increase in exportable supplies and pushes prices to levels that could incentivize additional imports. However, even in that scenario, we should not expect growth like the 37% increase of 2021.

Global Overview: WPC80+

Global WPC80+ Exports to World (Rolling 12 Months)

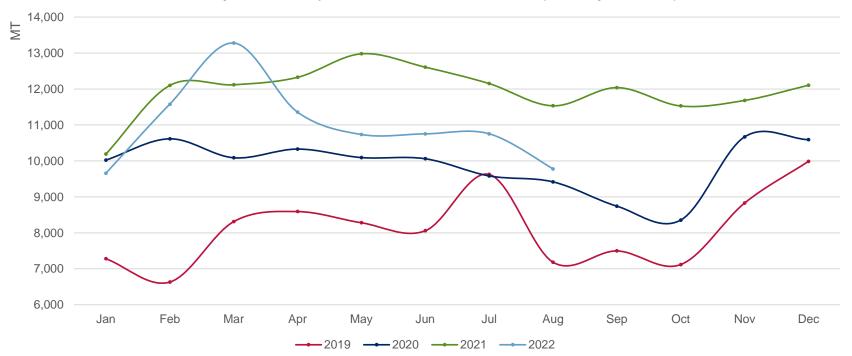


Source: USDEC, Trade Data Monitor

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Global Overview: WPC80+

Monthly Global Exports of WPC80+ to World (30-Day Months)

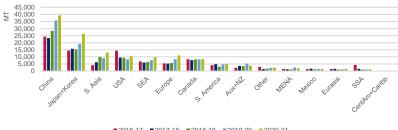


Trade Flows: WPC80+

Global WPC80+ Trade: L12M, Ranked by Largest

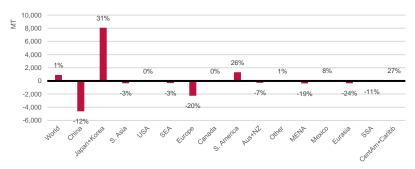
Market Other 1% 1% 1% 1% 1% 1% 1% 1% 3% S. America 4% China 29% Canada 6% Europe 8% SEA 7% USA Japan+Korea 8% 19% S. Asia 10%

Global WPC80+ Trade: Last 12 Months, Ending Aug

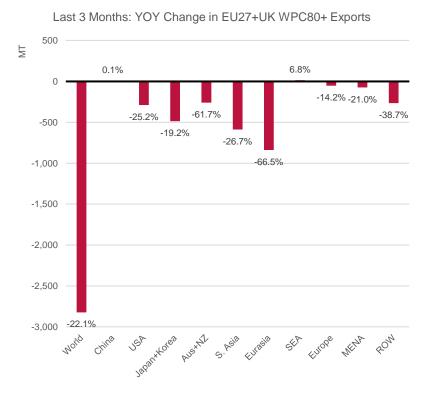


■2016-17 ■2017-18 ■2018-19 ■2019-20 ■2020-21

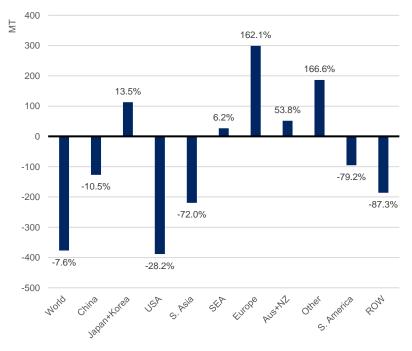
YOY Change in Global WPC80+ Trade: L12M, Ranked by Largest Market



Trade Flows: WPC80+

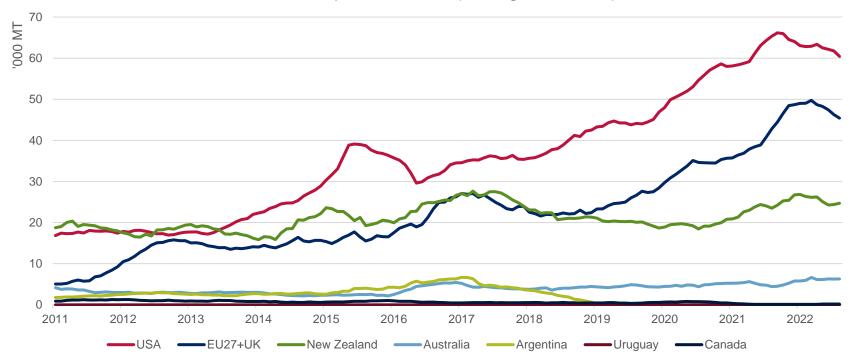




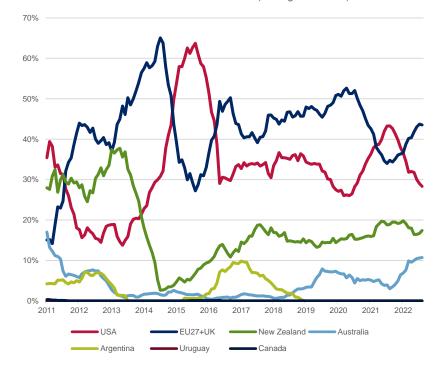


Trade Flows: WPC80+

WPC80+ Exports to World (Rolling 12 Months)

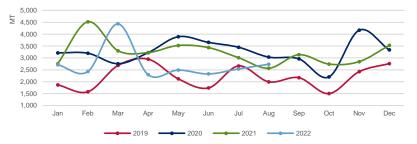


China



WPC80+ Market Share in China (Rolling 12 Months)

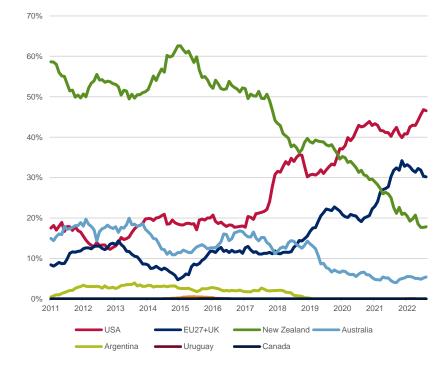
Monthly Global Exports of WPC80+ to China (30-Day Months)





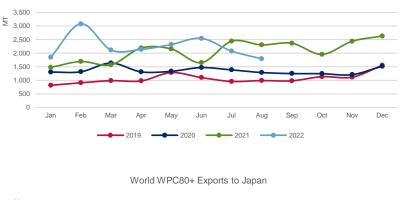


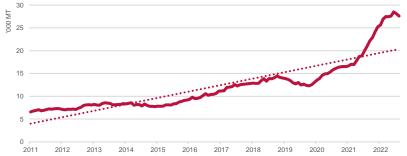
Japan



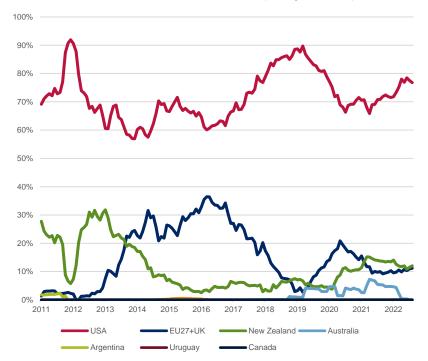
WPC80+ Market Share in Japan (Rolling 12 Months)

Monthly Global Exports of WPC80+ to Japan (30-Day Months)

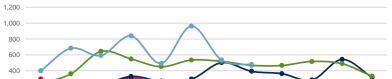




Korea



WPC80+ Market Share in South Korea (Rolling 12 Months)



Monthly Global Exports of WPC80+ to South Korea (30-Day Months)

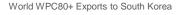
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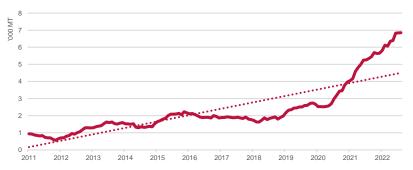
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Source: USDEC, Trade Data Monitor

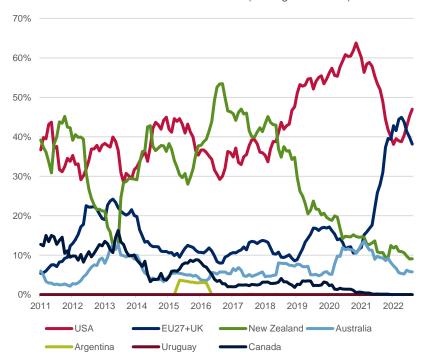
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- 2022

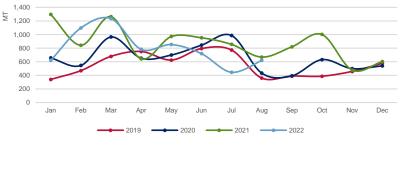
Nov

Southeast Asia



WPC80+ Market Share in SEA (Rolling 12 Months)

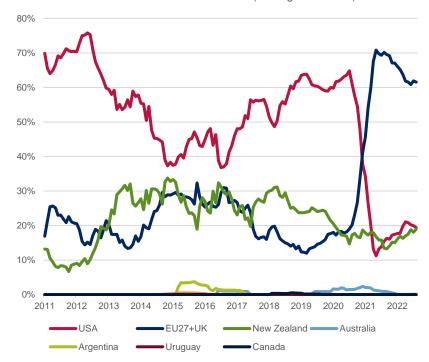
Monthly Global Exports of WPC80+ to SEA (30-Day Months)



Global WPC80+ Exports to SEA (Rolling 12 Months)

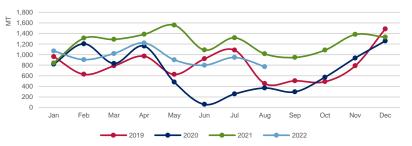


India

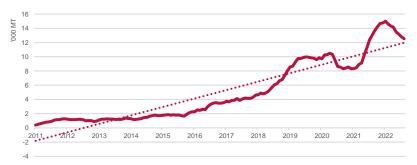


WPC80+ Market Share in India (Rolling 12 Months)

Monthly Global Exports of WPC80+ to India (30-Day Months)





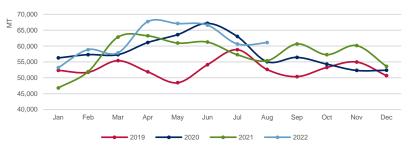




Other Dairy Products

Global Overview: Lactose

- **Key Takeaway:** Lactose trade climbed again in August (+10%, +5,938 MT) as U.S. product secured passage to Asian markets.
- U.S. exports jumped 33% in August (+9,889 MT) while EU27+UK shipments dropped by 15% (-699 MT), a continuation of recent trends.
- Gains in lactose trade were widespread as shipping to Asian markets improved in 2022. Global lactose trade to China climbed 27% (+2,716 MT) in August, Japan jumped 18% (+1,079 MT), and New Zealand bought 11% more (+773 MT).
- With improved shipping conditions and generally available supply, growth in lactose trade should continue into Q4 and even 2023.

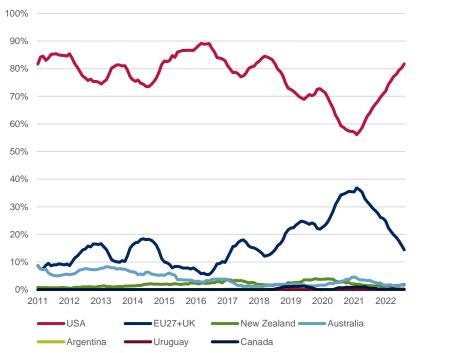






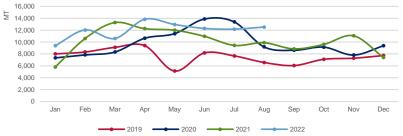
Global Lactose Exports to World (Rolling 12 Months)

Lactose – China



Lactose Market Share in China (Rolling 12 Months)

Monthly Global Exports of Lactose to China (30-Day Months)



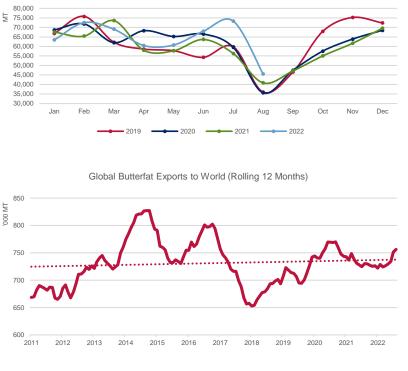




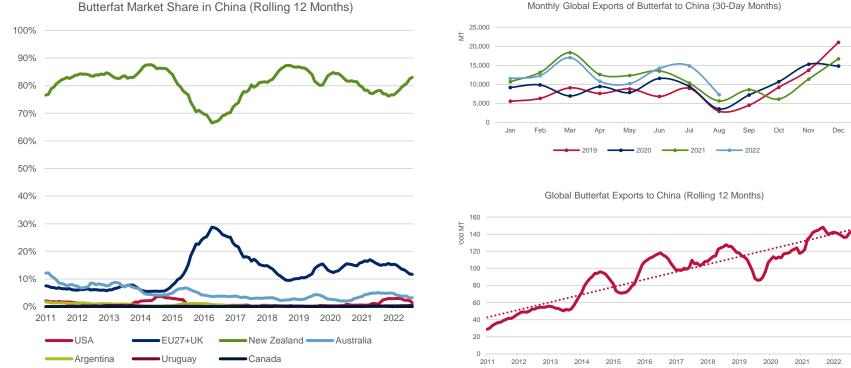
Global Overview: Butterfat

- **Key Takeaway:** Despite sky-high butterfat prices, global trade continued to climb in August (+11%, +4,850 MT).
- New Zealand clearing inventories (+50%, +6,855 MT) and the U.S. maintaining its astonishing growth in butter exports (+71%, +3,276 MT) enabled global butterfat trade to grow in spite of average international prices setting a new record of \$6,641/MT.
- Despite not being a major importer of butterfat, Mexico increased its purchases more than any other market (+279%, +2,897 MT) with a substantial uptick in AMF (+286%, +2,253 MT). The increase in Mexican imports was near evenly split by the U.S. (+1,570 MT) and New Zealand (+1,400 MT) as the Mexico's milk production continues to trail prior year levels.

Monthly Global Exports of Butterfat to World (30-Day Months)

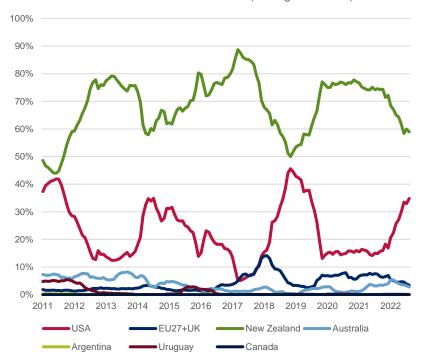


Butterfat – China

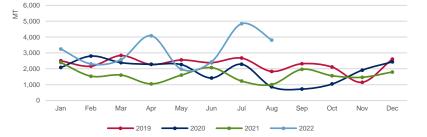


Monthly Global Exports of Butterfat to China (30-Day Months)

Butterfat – Mexico



Butterfat Market Share in Mexico (Rolling 12 Months)



Monthly Global Exports of Butterfat to Mexico (30-Day Months)



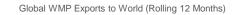


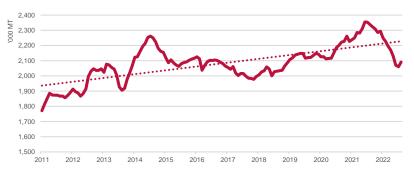
Global Overview: WMP

Key Takeaway: New Zealand nearly doubling WMP exports (albeit at the seasonal low ebb) drove a sharp jump in global WMP trade in August (+31%, +29,883 MT) as the exporter prepared for the new season.

- Unusually, the sharp jump in New Zealand exports (+96%, +36,275 MT in total; +38%, +6,179 MT to China) did not lead to an overall increase in purchases by China. In aggregate, WMP trade to China only increased by 2% (+649 MT), as the country reduced imports from the EU27+UK and Uruguay. The lack of activity from China, even when supply was available, should highlight how weak demand in the country has been as COVID lockdowns persist and consumer confidence falters. Still, Q4 data will be the key bellwether for China when purchases seasonally peak.
- Interestingly, South America increased its purchases the most of any market in August (+231%, +11,347 MT), led by Brazil (+277%, +8,819 MT) with Argentina and Uruguay as the primary suppliers rather than New Zealand, which instead focused its efforts on Southeast Asia (+176%, +10,042 MT) and MENA (+140%, +8,787 MT).

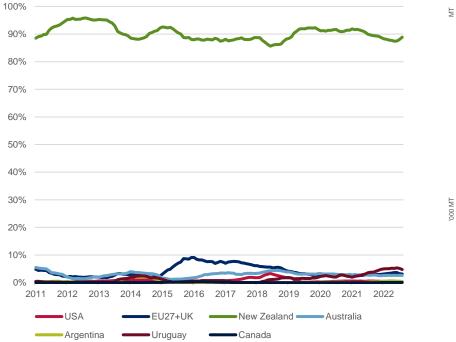
325,000 275,000 175,000 125,000 75,000 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2019 2020 2021 2022





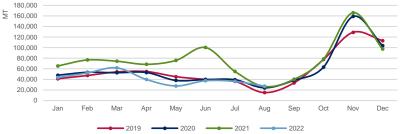
Monthly Global Exports of WMP to World (30-Day Months)

WMP – China



WMP Market Share in China (Rolling 12 Months)

Monthly Global Exports of WMP to China (30-Day Months)







Reach Out for Questions & Comments

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