

FMMO Recommended Decision

- On July 15, 2024, <u>USDA's Recommended Decision</u> on amendments to Federal Milk Marketing Order (FMMO) pricing formulas was published to the Federal Register. USDA made recommendations in each of the five major topic areas.
- The tables below depict the estimated price impacts of the recommended changes from 2019 to 2023. The table at left shows HighGround Dairy's analysis for individual component and class price impacts. The table at right is sourced from USDA's static analysis published on its website, which portrays the uniform price impacts in each of the FMMOs while holding several variables (like pooling decisions) constant.

Combined Impacts to Monthly Average Prices, 2019-2023

_	-	_	
	Average	Minimum	Maximum
Component Prices (\$/lb	o)		
Butterfat	-0.0656	-0.0657	-0.0656
Protein	+0.0701	-0.4553	+0.8283
Other Solids	-0.0682	-0.0682	-0.0681
Nonfat Solids	-0.0584	-0.0585	-0.0584
Class Prices (\$/cwt)			
Base Class I	+0.53	-1.15	+6.76
Class II	-0.45	-0.57	-0.27
Class III	+0.15	-1.57	+2.99
Class IV	-0.45	-0.56	-0.28

Sources: USDA, HighGround Analysis

The above values represent the difference between the current price formulas and the recommended formulas for skim component factors, block-only cheese, make allowances, butterfat yields, and the higher-of Class I mover. This does NOT include Class I differentials or the ESL Class I adjuster. For comparison purposes, the "average of" Class I mover was used in the current formula for January to April 2019 despite being the "higher of" at the time.

Weighted FMMO Uniform Price @ Component Test, 2019-2023

		<u> </u>			
FMMO	Current	Recommended	Difference		
		\$/cwt			
Northeast	21.27	21.70	+0.43		
Appalachian	22.05	24.02	+1.97		
Florida	23.63	25.12	+1.49		
Southeast	22.14	24.01	+1.87		
Upper Midwest	20.01	19.91	-0.10		
Central	20.10	20.69	+0.59		
Mideast	20.05	20.61	+0.56		
California	19.76	19.56	-0.20		
Pacific Northwest	20.71	20.74	+0.03		
Southwest	21.05	21.19	+0.14		
Arizona	19.56	19.53	-0.03		
Orders Combined	20.52	20.84	+0.32		

Source: USDA Regulatory Economic Impact Analysis

For more details and analysis on USDA's recent Recommended Decision, check out HighGround's White Paper.



CME Futures as of August 16, 2024

	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025
Class III (\$/cwt)	21.15	18.72	18.34	18.45	18.50
Vs. Last Month	+1.22	+0.15	-0.01	+0.05	+0.20
10-Yr Percentile	89%	77%	73%	75%	75%
Class IV (\$/cwt)	21.89	20.86	20.40	20.08	19.71
Vs. Last Month	+0.49	+0.12	-0.03	+0.02	+1.12
10-Yr Percentile	88%	84%	83%	82%	79%

Changes shown vs. Jul-16 Settlement Prices

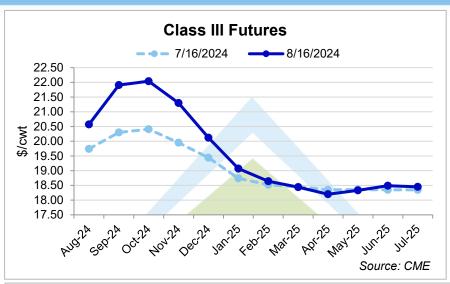
Percentiles compare the Net Price Floor (NPF) to the previous ten years of data for Class III or Class IV. Percentiles are interpreted as: "The Net Price Floor is higher than ___% of months over the last ten years for Class III (or IV)."

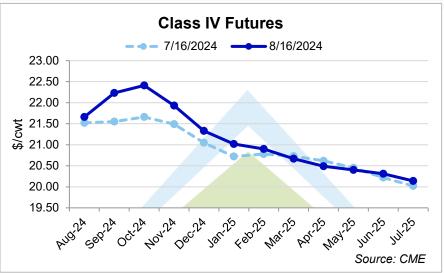
Percentile Shading Key:

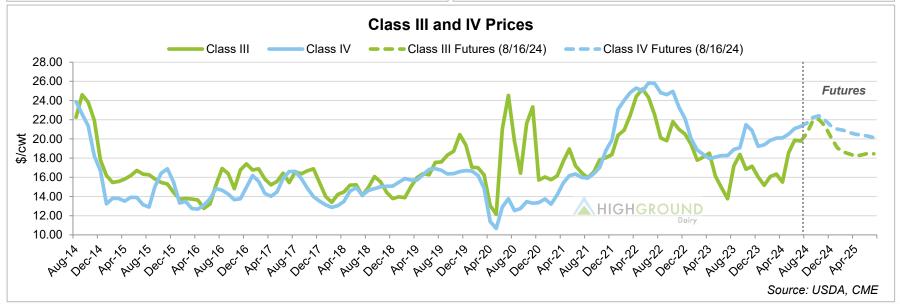
Red: 0 - 25% Brown: 25 - 50% Blue: 50 - 75% Green: 75 - 100%

- The dairy markets are as volatile as ever! Class III bounced back and forth over the past month, but futures are mostly higher. CME spot block and barrel cheese both eclipsed the \$2.00/lb. mark this past week, with barrels reaching their highest level in over two years and blocks climbing to their highest point in a year. Dry whey also reached a new two-year high this month, marking its highest price since April 2022 on August 1, 2024. Nearby Class III futures are up over \$0.50/cwt from last month for contracts through 2024, with October above \$22.00/cwt as of August 16, 2024. Q4 2024 ranks in the massive 89th percentile.
- Class IV futures remain historically elevated, with nearby months experiencing greater gains than the deferred. On August 16, 2024, CME spot butter reached its highest price since October 2023—the period when butter surged to its all-time high. Q4 2024 Class IV futures on August 16, 2024, rose \$0.49/cwt versus last month, placing the quarter in the 88th percentile.



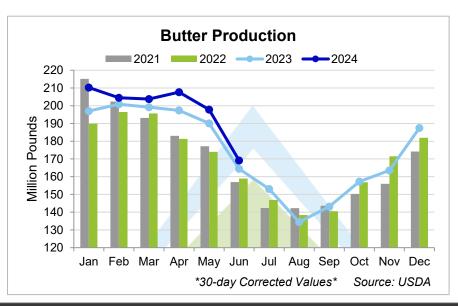


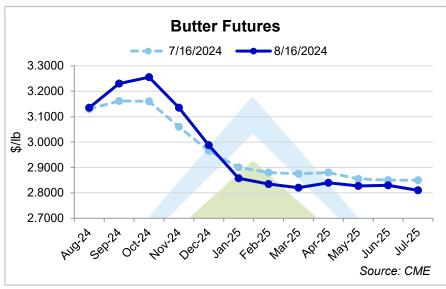


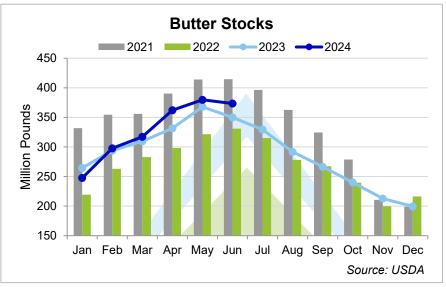




- In June, butter production climbed year-over-year for the seventh consecutive month (+2.8% YoY) and set a record for the highest output for the month. Compared to May, butter production slowed by 14.5%, more than the fiveyear average drop of 10%. This does not seem overly concerning, considering May's big butter print.
- June butter stocks were healthy (+6.8% YoY), recording their second-highest level for the month in the past 30 years. Lots of product has been made and put away for holiday sales in the second half of 2024.

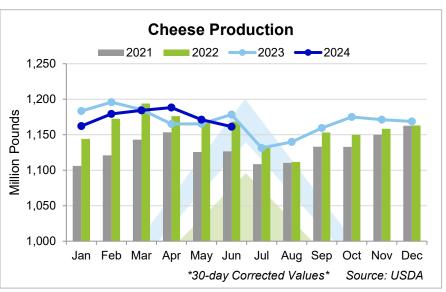


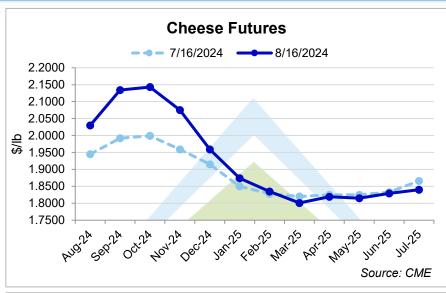


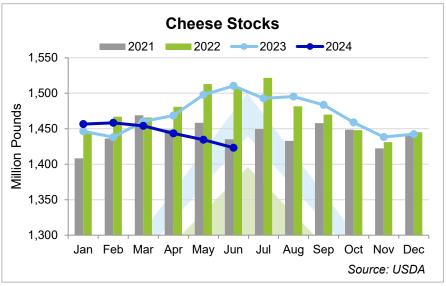




- In June, total cheese production declined 1.4% versus last year. It also fell from last month (-0.8% MoM), counter to the seasonal trend of a slight increase. Cheddar production dropped 9% year-over-year, marking the eighth straight month of decline and falling to its lowest June level since 2020. In contrast, Mozzarella turned in the highest total for the month, up 2% from the prior year, likely due to export sales booked in March and April.
- June's total cheese inventories were down 0.8% yearover-year and 5.8% month-on-month, recording the smallest total since November 2021 and the lowest June level since 2020.

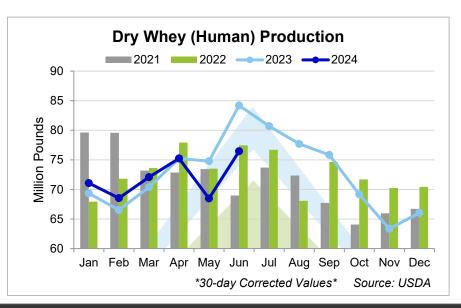


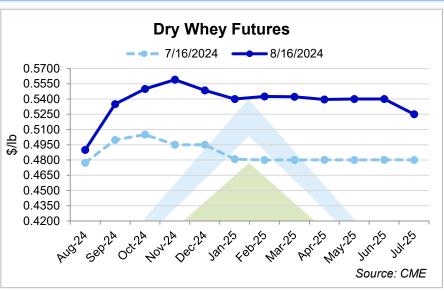


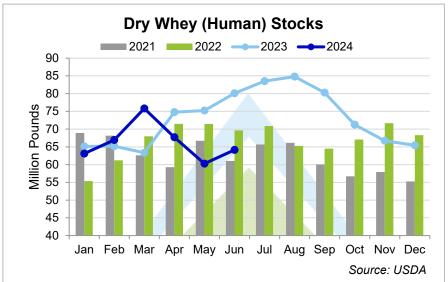


Dry Whey Prices and Supply

- Dry whey production in June fell 9.2% from the prior year. Less milk made its way to cheese vats, helping to explain some of the lower output. However, dry whey production was up nearly eight million pounds (+11.6% MoM) from the prior month. After May's weak dry whey production and dip in stock levels, the month-on-month increase suggests that processors may be trying to keep supply in line with demand.
- Dry whey stocks climbed nearly four million pounds (+6.4% MoM) from May to June, another data point suggesting that manufacturers are trying to get the right product mix.

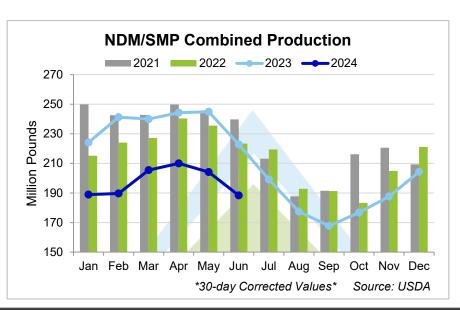


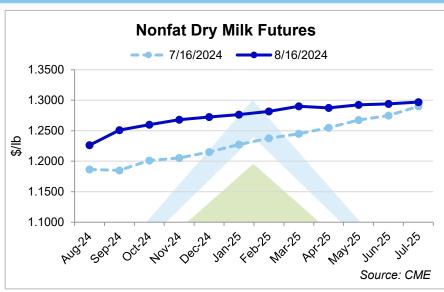


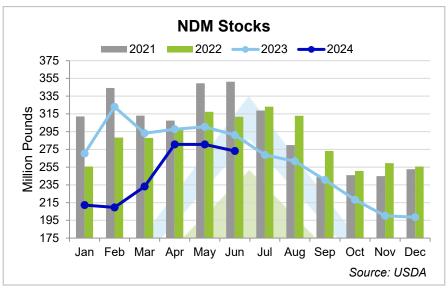




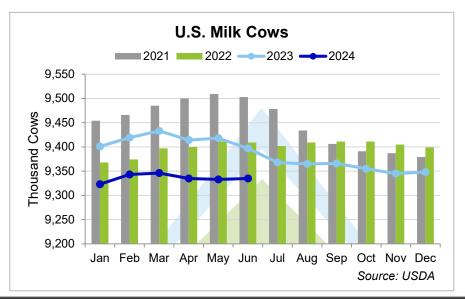
- Combined production of NDM and SMP dropped 15.5% from June 2023, logging the weakest June output since 2011. Individually, NDM production was down 26% versus the prior year, sinking to its lowest value for the month since 2007.
- Despite the abysmal production numbers, stocks fared okay. June's NDM inventories were down 6.2% from last year and 2.7% from last month. Although recording declines, the consolidation from May to June seemed tempered relative to the plunge in production.

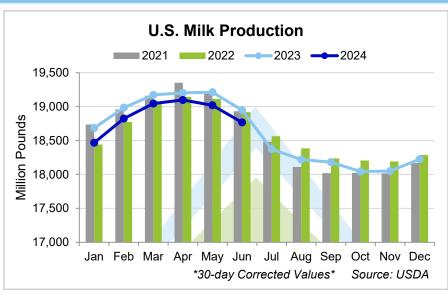


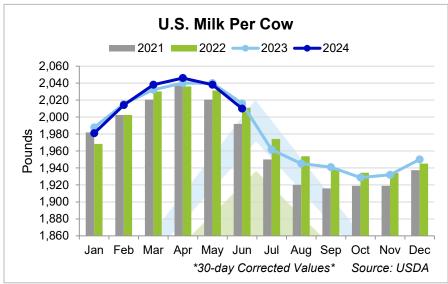




- U.S. milk production dropped 1% year-over-year in June, marking the twelfth consecutive month of decreases. HighGround's estimates show that the last instance of milk volumes falling for over a year dates back to the 1980s.
- The national herd remained below prior-year levels, down 62,000 head from June 2023. USDA substantially revised May's cow numbers, reducing the count by 17,000 head. This led to a month-on-month decline from April to May, bucking the typical seasonal build. As a result, June's cow numbers rose 2,000 head from May.
- Milk per cow was down 0.3% from last June, the lowest June yield since 2021. Hot temperatures in the West and avian influenza were likely culprits for lower productivity.

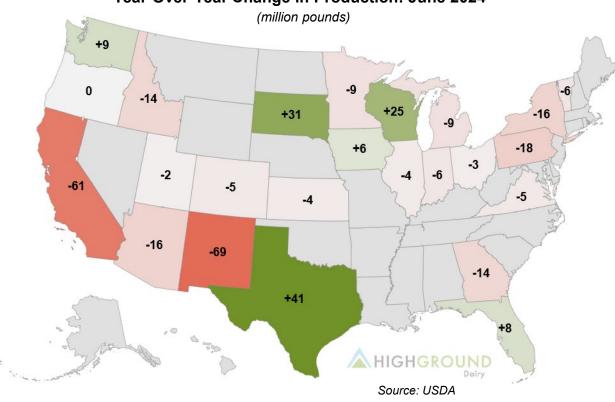








Year-Over-Year Change in Production: June 2024



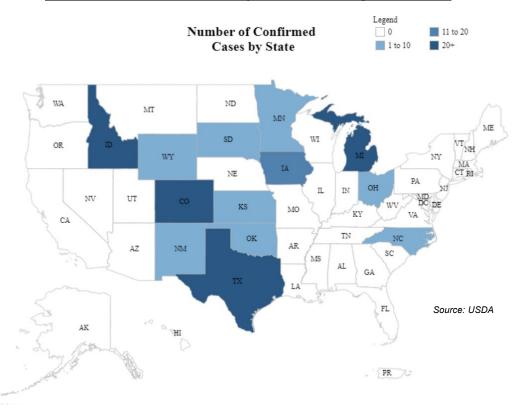
- Regionally, milk flows in the West suffered in June. California's production fell 1.8% against June 2023, recording the lowest total for the month since 2019. While the herd has decreased for several years, lower milk per cow—down both year-over-year and month-onmonth—was the primary driver of the smaller output in the Golden State. Arizona, Colorado, Idaho, New Mexico, and Utah also lost milk.
- Milk per cow is recovering in Texas, up 1% versus the prior year after plummeting over 2% year-over-year in March and April. In total, Texas milk production rose 3.1% from June 2023. However, Texas' volumes were flat compared to two years ago, as June 2023 was the first month impacted by the deadly barn fire in Dimmitt, Texas, that shrunk the herd by 10,000 head.
- In the Midwest, milk production climbed in South Dakota, Wisconsin, and Iowa.



Highly Pathogenic Avian Influenza (HPAI)

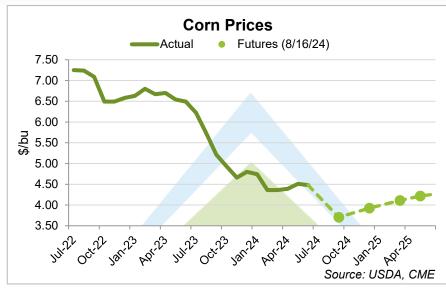
- As of August 12, 2024, HPAI has been confirmed in 192 dairy herds in the U.S.
- On July 22, the <u>Colorado Department of Agriculture</u> announced that all dairy farms in the state must submit weekly bulk tank samples for testing.
- On August 13, the <u>FDA released results</u> from a second retail dairy product sampling survey. The survey tested 167 dairy products for HPAI. Dairy products were collected at retail locations, including fluid milk, cheese, cream cheese, butter, and ice cream. The FDA reported that no viable H5N1 virus was detected.
- Producers are reporting that milk production in affected areas is recovering.
- The FDA confirms that pasteurized milk/dairy products and ground beef are SAFE for human consumption.

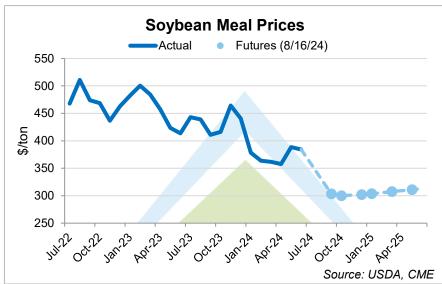
USDA HPAI Detection in Dairy Cows as of August 12, 2024



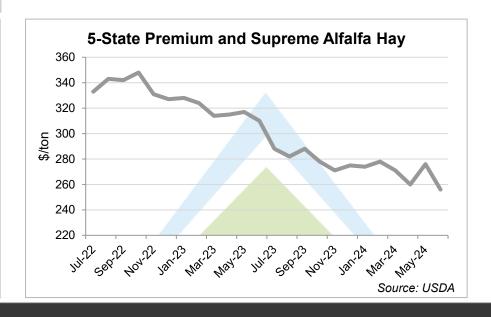
To stay up to date on news surrounding this issue, check out the resource center on our website: "Navigating HPAI: Dairy Market Resource Center".





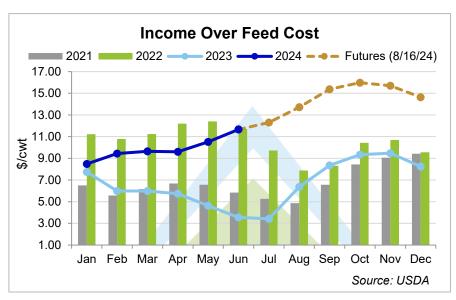


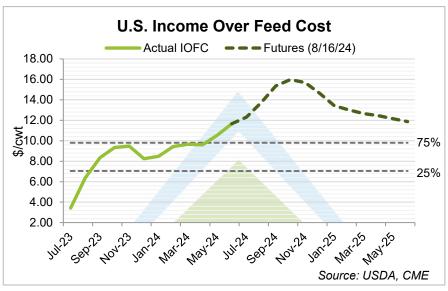
- Crops are looking good, and yields are forecasted to be large! 2024/25 season corn and soybean meal futures recorded life-of-contract lows this past week. As of August 16, 2024, September and December 2024 corn futures are below \$4.00/bu and September and October 2024 soybean meal futures hover around \$300/ton. It's been a long time since producers have seen these low marks.
- June's average premium and supreme quality alfalfa hay price in the top five major dairy states dropped \$20 per ton from last month to \$256. This represents a drop of 17% versus last year.





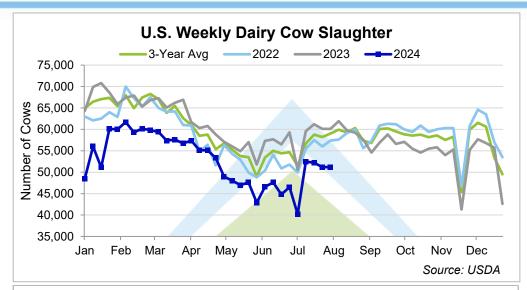
- The Dairy Margin Coverage program's margin calculation rose to \$11.66/cwt in June, up a substantial \$1.14/cwt. from May. Higher Class III (+\$1.32/cwt) and Class IV (+\$0.58/cwt) prices resulted in an \$0.80/cwt increase in USDA's all-milk price. While corn and soybean meal prices decreased slightly from May to June, the \$20/ton decline in alfalfa hay had the largest impact on lower feed costs.
- Margins are looking VERY different than a year ago. Life-of-contract lows in corn and soybean meal futures coupled with higher Class III and IV prices have led to an impressive income over feed cost (IOFC) outlook this month. IOFC estimates are at some of the highest levels seen in the past ten years. Through June 2025, projected monthly IOFCs rank in the top 92% of monthly margins with three months estimated higher than any month since July 2014.

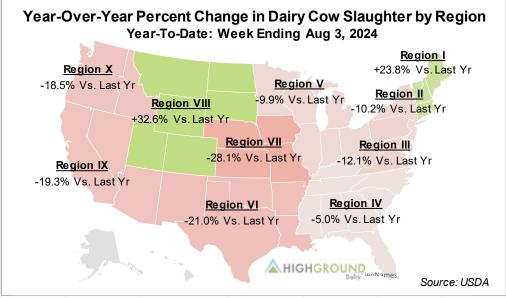




Income over feed cost is calculated using USDA-FSA Dairy Margin Coverage program formulas. The projected margin utilizes milk and feed futures as inputs. An estimate for milk is calculated using dairy product futures and historical trends for component levels. Feed is calculated from corn and soybean meal futures along with recent premium alfalfa hay prices.





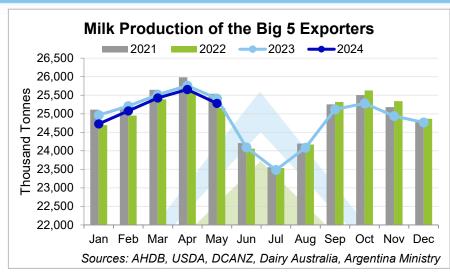


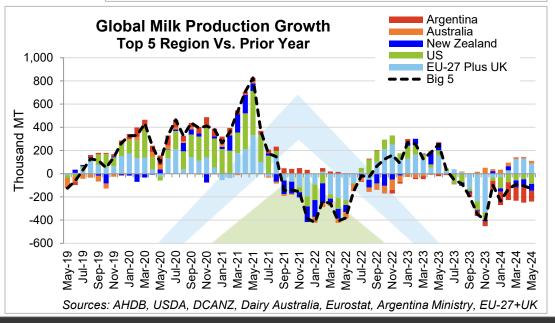
- Slaughter continues to lag prior-year levels. Total U.S. dairy cow slaughter for the week ending August 3, 2024, was down 8,900 head from the same week last year (-14.8% YoY).
- Year-to-date, dairy cow slaughter is 277,200 head lower than the same period last year (-14.5% YoY). The largest losses have been observed in the West (Region IX; -90,200 head), Southwest (Region VI; -55,400 head), and Pacific Northwest (Region X; -46,000 head).



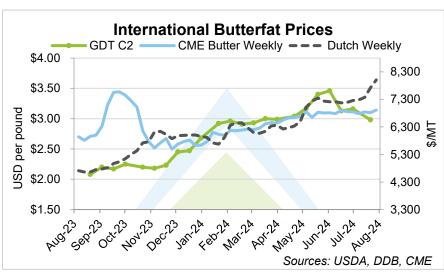
- Milk production in the top five dairy-exporting countries decreased 0.5% year-over-year in May, marking the eleventh straight month of annual declines.
- Argentina and the U.S. declined by the largest amounts versus the prior year, dropping 95,100 MT and 90,700 MT, respectively. Milk production was also lower yearover-year in New Zealand, which decreased 61,000 MT from last May.
- The EU-27+UK and Australia increased production compared to last year. The EU-27+UK grew 92,300 MT, while Australia rose 21,800 MT.

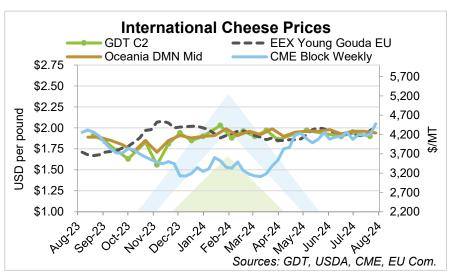
Year-Over-Year Percent Change in Production: May-24								
Country Percent Change								
EU-27 Plus UK	0.6%							
United States	-1.0%							
New Zealand	-6.2%							
Australia	3.5%							
Argentina	-10.8%							
Big 5	-0.5%							

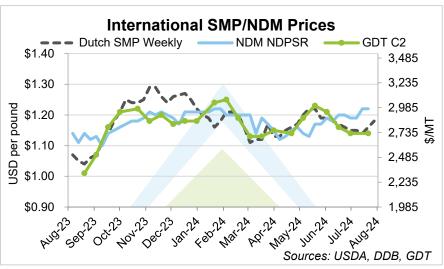


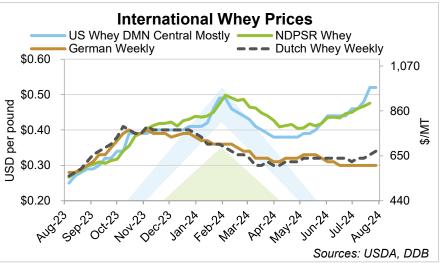


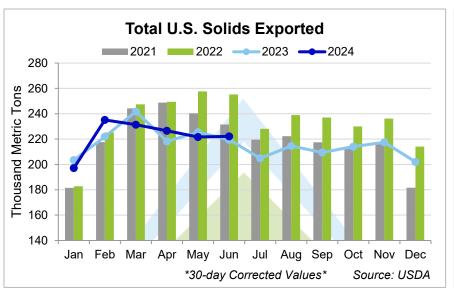


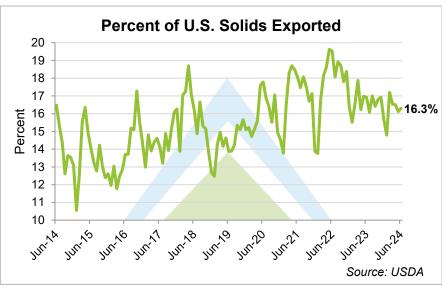








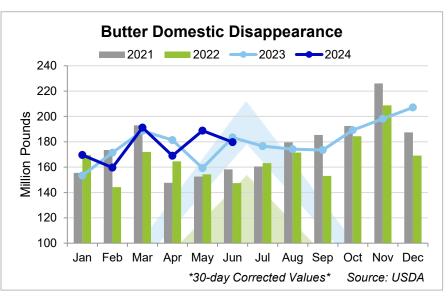


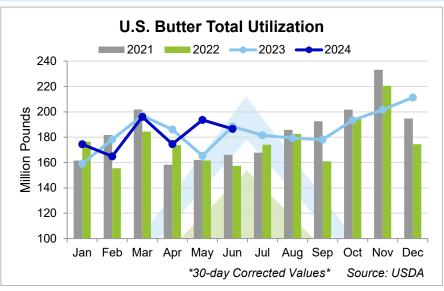


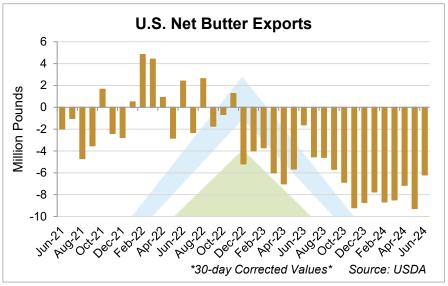
- U.S. dairy exports in June were 1.2% higher than last year but still below the levels seen in June 2020, 2021, and 2022. The year-over-year increase was driven by stronger demand from Southeast Asia, Canada, South Korea.
- The U.S. exported 16.3% of its milk solids in June, down 3.7% from the same time last year.



- Butter exports were up for the second month in 2024, recording an increase of 31.8% from June 2023 and surpassing 3,000 MT for the first time since March 2023. Still, the U.S. is a long way from the record shipments sent abroad in 2022 and 2021 and remains a net importer of butter.
- Total butter usage has been inconsistent in 2024, driven by domestic consumption. In June, domestic butter utilization fell 2% year-over-year. Despite the decline, June 2024 still recorded the second-highest domestic butter usage for the month, trailing only last year's levels.

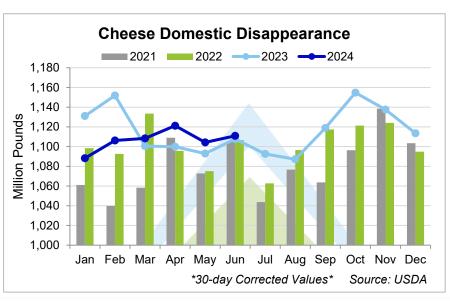


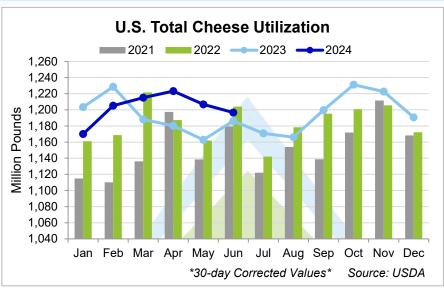


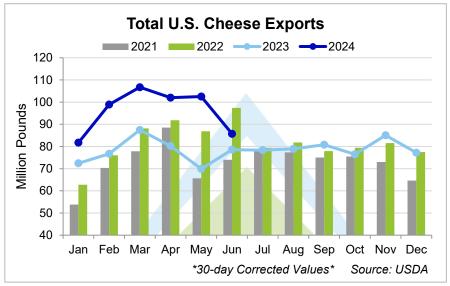




- Total U.S. cheese exports saw a sharp decline in June, down 16.4% from May, suggesting that the surge in monthly export sales driven by significantly lower U.S. cheese prices compared to the global market may have run its course for the year. Despite the month-on-month drop, June's total remained higher than the same period in 2023 (+9.1% YoY) and marked the sixth consecutive month of year-over-year growth in cheese exports.
- Domestic cheese consumption in June rose 0.3% from last year and 0.6% from last month. Higher utilization of other-than-American cheese drove the growth, while American cheese consumption declined year-over-year and month-on-month.

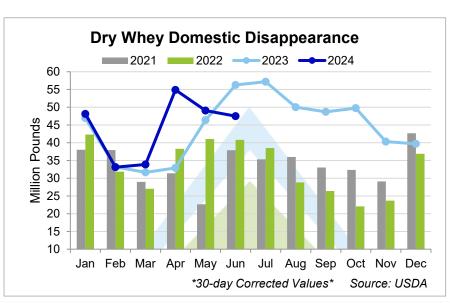


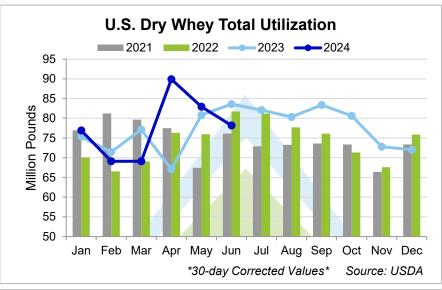


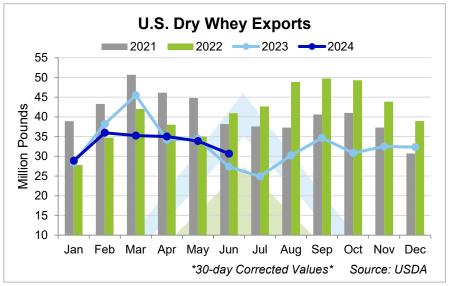




- Dry whey exports rose year-over-year in June, up 12.2% from June 2023, as demand from China continued to pick up steam (+19.1% YoY).
- Domestically, dry whey usage dropped 3.2% from last month and 15.6% from last year.
- Total dry whey utilization moved counter-seasonally from May to June, falling 5.7%.

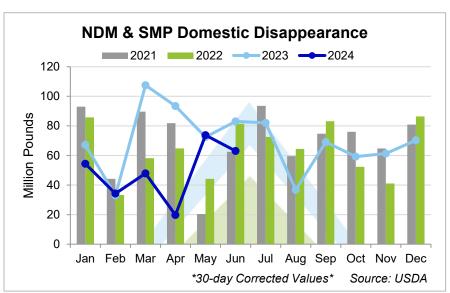


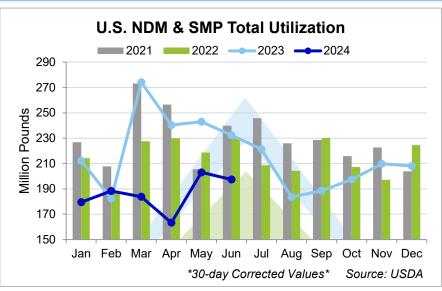


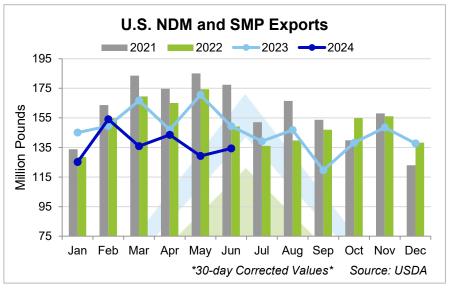




- International demand for powders remains lackluster. In June, NDM/SMP exports grew 4% versus May but remained lower compared to last year (-10% YoY). Slower shipments to Mexico (-21% YoY) brought the total down.
- Domestic disappearance of NDM/SMP recorded a double-digit, year-over-year decrease (-24.1% YoY) for the fourth month in 2024.
- Total NDM/SMP usage remained depressed in June, recording the lowest total for the month since 2014.







Product Balance Sheets

Year-Over-Year Volumes: Jun-24

	Total Cheese			Dry Whey			Butter			Dry Skim Milk Products		
	Jun-23	Jun-24	YOY	Jun-23	Jun-24	YOY	Jun-23	Jun-24	YOY	Jun-23	Jun-24	YOY
	millio	n Ibs	%	million lbs		%	millio	million lbs		million lbs		%
Supply												
Beginning Stocks	1,497.8	1,434.5	-4.2%	78.1	64.5	-17.4%	367.9	379.8	3.2%	306.6	290.1	-5.4%
Production	1,178.4	1,161.4	-1.4%	88.2	81.5	-7.6%	164.5	169.2	2.9%	223.6	189.0	-15.5%
Imports	20.3	24.1	18.7%	0.0	0.0	-	5.9	11.1	88.1%	0.2	0.2	0.0%
Total Supply	2,696.5	2,620.0	-2.8%	166.3	146.0	-12.2%	538.3	560.1	4.0%	530.4	479.3	-9.6%
<u>Utilization</u>												
Domestic Disappearance	1,107.6	1,110.9	0.3%	56.3	47.5	-15.6%	183.4	179.7	-2.0%	83.0	63.0	-24.1%
Exports	78.6	85.8	9.2%	27.3	30.7	12.5%	5.1	6.8	33.3%	149.4	134.4	-10.0%
Total Utilization	1,186.2	1,196.7	0.9%	83.6	78.2	-6.5%	188.5	186.5	-1.1%	232.4	197.4	-15.1%
<u>Stocks</u>												
Ending Stocks	1,510.3	1,423.3	-5.8%	82.6	67.8	-17.9%	349.8	373.5	6.8%	298.0	281.9	-5.4%

Year-To-Date Volumes

	Total Cheese			Dry Whey			Butter			Dry Skim Milk Products		
	2023	2024	YOY	2023	2024	YOY	2023	2024	YOY	2023	2024	YOY
	millior	ı lbs	%	millio	n Ibs	%	million lbs		%	million lbs		%
Supply	`											
Production	7,111.5	7,124.5	0.2%	470.3	469.0	-0.3%	1,155.1	1,206.5	4.4%	1,429.9	1,203.9	-15.8%
Imports	139.5	152.5	9.3%	1.3	0.9	-30.8%	57.9	70.8	22.3%	1.0	0.7	-30.0%
Total Supply	7,251.0	7,277.0	0.4%	471.6	469.9	-0.4%	1,213.0	1,277.3	5.3%	1,430.9	1,204.6	-15.8%
<u>Utilization</u>												
Domestic Disappearance	6,717.8	6,712.4	-0.1%	249.3	269.8	8.2%	1,042.8	1,071.0	2.7%	462.4	297.7	-35.6%
Exports	467.8	584.0	24.8%	209.1	201.7	-3.5%	36.9	32.5	-11.9%	934.3	830.2	-11.1%
Total Utilization	7,185.6	7,296.4	1.5%	458.4	471.5	2.9%	1,079.7	1,103.5	2.2%	1,396.7	1,127.9	-19.2%

Dry Skim Milk Products includes NDM, SMP, and dry skim milk for animal use. USDA NASS does not report manufacturers' stocks of SMP.



Key Takeaways

- Lower milk production and tight seasonal supply have lifted CME spot dairy product prices in recent weeks. With the swift rise in CME spot cheese, the forward curve for Class III futures has become very inverted, indicating that buyers have shifted strongly toward more cautious, just-in-time purchasing. As prices reach these elevated levels, CME futures are likely to see enhanced volatility, as market participants scramble to adjust their positions.
- Margins for producers look fantastic. New crop corn and soybean meal futures have dropped to life-of-contract lows thanks to favorable crop conditions, with the market expecting solid yields. Feed costs are projected to be the lowest since 2020. Pair that with the recent rally in Class III and sustained high levels of Class IV, and the margin between milk and feed is looking very impressive, especially to finish out 2024. Farmers are likely feeling pretty optimistic right now.
- Even with all this good news, bearish concerns persist. Additional Class III capacity is scheduled to come online later this
 year and into Q1 2025, likely leading to more cheese in the market. Further, the broader economic environment remains
 worrisome, potentially hindering consumer demand for dairy domestically and abroad. With favorable margins in the
 futures market, we encourage producers to take advantage to protect their bottom line.

About HighGround Dairy

HighGround Dairy launched in 2012 by industry veteran, Eric Meyer. Affiliated with HighGround Trading LLC, Eric is the President of its Dairy Division which services all those interested in trading dairy futures and options markets. Through the brokerage division and its related consulting company, HighGround Advisory Group, it specializes in dairy hedging, risk management and market analysis services for farmers & cooperatives, processors, manufacturers, distributors, traders and end-users.

If you have questions or comments about our market analysis, have interest in signing up to receive our reports directly or have interest in trading dairy futures and options, please call or email below.

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