

## OVERVIEW

Milk prices have continued to rise as lower milk production has prompted a drawdown in inventories even though demand remains flat. Domestic commercial use of milk in all products grew at an annual rate of 2 percent during August-October, which, combined with a 10 percent annual drop in the volume of U.S. dairy exports, has led to little change in total commercial use. But even that level of demand still outpaced milk production, which was down by half a percent. That's led to a decline in dairy product stockpiles since last spring. On a milk equivalent, total milk solids basis, aggregate stocks of all dairy products in the country were down by 17 percent from May.

## COMMERCIAL USE OF DAIRY PRODUCTS

Fluid milk sales were down just over half a percent from a year ago during August-October, as September sales were down by less than 1 percent, and October sales rose by 1 percent. Domestic use of American-type cheese was essentially unchanged during August-October, while all other types of cheese continued to lose consumption, pushing total cheese use down by one percent during the period. Following a general decline during 2022, domestic yogurt consumption has resumed growing this

year, as it did during the first two years of the pandemic. Domestic butter use has grown strongly for most of this year, following the rapid drop in its retail price during the first months of the year that followed its spectacular inflationary rise during 2022. However, growth in total use of milkfat in all products has slowed rather steadily through most of the year to date, while total use of skim solids has held steady, generally above 3 percent per year.

DOMESTIC COMMERCIAL USE	AUG-OCT 2023	AUG-OCT 2022	2022-2023 CHANGE	PERCENT CHANGE
(million pounds)				
Total Fluid Milk Products	10,827	10,889	-62	-0.6%
Yogurt	1,224	1,197	28	2.3%
Butter	550	510	40	7.8%
American-type Cheese	1,361	1,356	4	0.3%
All Other Cheese	2,017	2,055	-39	-1.9%
Total Cheese	3,377	3,412	-34	-1.0%
Dry Skim Milk	146	219	-73	-33.1%
All Products (milk equiv., milkfat basis)	57,848	57,401	447	0.8%
All Products (milk equiv., skim solids basis)	46,505	45,339	1,166	2.6%
All Products (milk equiv., total solids basis)	50,052	49,073	980	2.0%



## U.S. DAIRY TRADE

Between April and October, the United States has exported about 2 percent less of its milk solids production than it did during the same months in 2022. This loss rate has moderated in more recent months. The key products contributing the most to this loss are dried and modified whey, whey protein concentrate, skim milk powder, butter and anhydrous milkfat, and cheese. Milk solids exported have lost an overall 12 percent of their per-unit dollar value during this period, reflecting the toll weaker worldwide import demand has had on international dairy prices.

U.S. dairy imports have been relatively stable this year, averaging less than the equivalent of 3.5 percent of total U.S. milk solids production. Over half of this volume consists of butter, milk and whey protein concentrates, casein, and cheese. The per-unit dollar value of total milk solids imports during the first ten months of 2023 is three and one-third times as high as that of total U.S. exports. This reflects the relatively high unit value of the dairy products the country imports relative to that of the products it exports.

U.S. DAIRY EXPORTS	AUG-OCT 2023	AUG-OCT 2022	2022-2023 CHANGE	PERCENT CHANGE
	(metric tons)			
Butter	6,414	18,333	-11,919	-65%
Anhydrous Milk Fat/Butteroil	818	3,789	-2,971	-78%
American-type Cheese	14,918	19,950	-5,032	-25%
Cheddar Cheese	14,827	19,718	-4,890	-25%
All Other Cheese	94,914	91,122	3,792	4%
Total Cheese	109,832	111,072	-1,240	-1%
Dry Skim Milk	186,055	202,651	-16,596	-8%
Whole Milk Powder	6,596	7,689	-1,093	-14%
Dry Whey	44,074	68,301	-24,227	-35%
Whey Protein Concentrate/Isolate	58,070	59,389	-1,319	-2%
Lactose	123,887	115,811	8,076	7%
Percent of U.S. Milk Solids Exported	16.7%	18.5%	-1.8%	-10%

U.S. DAIRY IMPORTS	AUG-OCT 2023	AUG-OCT 2022	2022-2023 CHANGE	PERCENT CHANGE
	(metric tons)			
Butter	13,354	13,408	-54	0%
Cheese	55,743	53,554	2,189	4%
Dry Skim Milk	182	156	26	16%
MPC (all protein levels)	12,096	10,342	1,754	17%
Casein	13,577	19,505	-5,928	-30%
Percent of U.S. Milk Solids Imported	3.5%	3.6%	-0.1%	-3%



## MILK PRODUCTION

Total U.S. milk production has been showing renewed signs of weakness. After growing by more than 1 percent annually during most of the second half of last year and into this one, production growth was down by almost one percent last July and August. It was then basically flat in September but fell again, by half a percent in October, on lower cow

numbers and flat production per cow. The October drop was geographically widespread, with production growth little changed to negative in all except 11 mostly midwestern and eastern states. Milk solids production growth barely increased during August through October.

MILK PRODUCTION	AUG-OCT 2023	AUG-OCT 2022	2022-2023 CHANGE	PERCENT CHANGE
Cows (1,000 head)	9,374	9,408	-34	-0.4%
Per Cow (pounds)	5,952	5,959	-7	-0.1%
Total Milk (million pounds)	55,793	56,067	-274	-0.5%
Total Milk Solids (million pounds)	7,311	7,294	17	0.2%
Milk Solids Composition of Milk (percent)	13.1%	13.0%	0.1%	0.7%

## DAIRY PRODUCTS

Overall cheese production has been flat during August through October, while dry skim milk production was down by double-digit percentages, whey product production

was up, and butter production mirrored that of overall milk production, dropping by half a percent during the period.

DAIRY PRODUCTS PRODUCTION	AUG-OCT 2023	AUG-OCT 2022	2022-2023 CHANGE	PERCENT CHANGE
<b>Cheese</b>	(million pounds)			
American Types	1,395	1,380	15	1.1%
Cheddar	956	964	-7	-0.7%
Italian Types	1,470	1,482	-12	-0.8%
Mozzarella	1,162	1,160	2	0.2%
Total Cheese	3,501	3,493	8	0.2%
<b>Butter</b>	443	446	-2	-0.5%
<b>Dry Milk Products</b>				
Nonfat Dry Milk	339	385	-47	-12.1%
Skim Milk Powder	158	199	-42	-20.9%
Dry Whey	235	226	9	3.9%
Whey Protein Concentrate	120	113	7	6.0%

## DAIRY PRODUCT INVENTORIES

Inventories of the major dairy products continued to fall in October, as lower milk production required inventory drawdowns to meet dairy product demand. Ending October stocks of cheese were down by 4 percent from the maximum level they reached last year. At the same time, stocks had

fallen from the maximum levels they reached at various times during the past five years by 32 percent for the whey complex products, and 48 percent for dry skim and whole milk.



DAIRY PRODUCT INVENTORIES	OCT 2023	SEP 2023	OCT 2022	2022-2023 CHANGE
	(million pounds)			
Butter	238	267	240	-1%
American Cheese	838	851	831	1%
Other Cheese	626	632	617	2%
Dry Skim Milk	235	250	258	-9%
Dry Whey	76	83	68	12%

## DAIRY PRODUCT AND FEDERAL ORDER CLASS PRICES

The November NDPSR weighted-average price for cheddar cheese was little changed from a month earlier, as lower block prices offset higher prices for barrels. The November butter price was down significantly from October's \$3.24/lb all-time monthly high, while nonfat dry milk and dry whey prices were higher for the month. These combined product price movements increased Class III prices and lowered Class IV and Class II prices during November.

On a year-over-year basis, the consumer price index (CPI) for all items, or the overall rate of inflation, inched lower to a 3.1 percent gain from a year earlier in November. The Federal Reserve's target inflation rate is 2 percent per year. Other CPI annual rate changes for November were 2.9 percent for all food and beverages, -1.4 percent for all dairy products, with rates for individual dairy product categories ranging from -2.9 percent for fresh whole milk to 1 percent for ice cream and related products.

DAIRY PRODUCT AND FEDERAL ORDER PRICES	NOV 2023	OCT 2023	NOV 2022	2022-2023 CHANGE
<b>NDPSR Dairy Product Prices</b>	(per pound)			
Butter	\$3.029	\$3.239	\$2.956	\$0.073
Cheddar Cheese	\$1.742	\$1.739	\$2.090	-\$0.348
40-Pound Blocks	\$1.751	\$1.804	\$2.075	-\$0.324
500-Pound Barrels	\$1.703	\$1.650	\$2.074	-\$0.371
Nonfat Dry Milk	\$1.186	\$1.156	\$1.505	-\$0.319
Dry Whey	\$0.383	\$0.320	\$0.475	-\$0.091
<b>Federal Order Class Prices for Milk</b>	(per hundredweight)			
Class I Base	\$19.75	\$19.47	\$24.09	-\$4.34
Class II	\$21.21	\$21.95	\$24.67	-\$3.46
Class III	\$17.15	\$16.84	\$21.01	-\$3.86
Class IV	\$20.87	\$21.49	\$23.30	-\$2.43
<b>Retail Dairy Product Prices</b>				
Fluid Whole Milk (per gallon)	\$3.997	\$3.927	\$4.218	-\$0.221
Lowfat Fluid Milk (per gallon)	\$3.692	\$3.673	\$3.842	-\$0.150
Cheddar Cheese (per pound)	\$5.650	\$5.846	\$5.933	-\$0.283
Butter (per pound)	\$4.520	\$4.550	\$4.639	-\$0.119



## MILK AND FEED PRICES

The milk-feed cost margin under the Dairy Margin Coverage (DMC) program posted another significant increase, of \$1/cwt, in October. The all-milk price rose \$0.60/cwt from September to \$21.60/cwt., and the October DMC cost was

down by \$0.40/cwt for the month to \$12.16/cwt, mostly due to a lower corn price. The October margin was therefore \$9.44/cwt, which will generate just a 6-cent margin payment for coverage at the \$9.50/cwt Tier 1 level.

MILK AND FEED PRICES	SEP 2023	AUG 2023	SEP 2022	2022-2023 CHANGE
<b>Producer Prices</b>				
All Milk (per cwt.)	\$21.60	\$21.00	\$25.60	-\$4.00
<b>Feed Prices</b>				
Corn (per bushel)	\$4.93	\$5.21	\$6.49	-\$1.56
Soybean Meal (per ton)	\$416	\$411	\$469	-\$53
Premium Alfalfa Hay (per ton)	\$278	\$288	\$348	-\$70
<b>Feed Prices (per cwt of milk)</b>				
Corn	\$5.29	\$5.59	\$6.96	-\$1.67
Soybean Meal	\$3.06	\$3.02	\$3.44	-\$0.39
Premium Alfalfa Hay	\$3.81	\$3.95	\$4.77	-\$0.96
<b>DMC Feed Cost* (per cwt.)</b>	\$12.16	\$12.56	\$15.19	-\$3.03
<b>DMC Margin* (per cwt.)</b>	\$9.44	\$8.44	\$10.71	-\$1.27

\*DMC calculations are not revised

## LOOKING AHEAD

USDA's monthly World Agricultural Supply and Demand (WASDE) report for December again dropped its forecasts for U.S. milk production for this year and for 2024, due to lower milk cow numbers and reduced milk per cow. The latest report projected 2023 milk production will exceed 2022's by just 0.2 percent and 2024's production will exceed this year's by 0.9 percent. The annual rate of U.S. milk production growth has been slowing in recent years. It averaged 2.1 percent from 2005 through 2009, 1.7 percent from 2010 through 2014, 1.2 percent from 2015 through 2019, and 1 percent for the five years 2018 through 2022.

Compared to the December WASDE forecasts for 2024 annual average prices, the CME Group futures forecasts at the same time ranged from \$0.12/lb over for nonfat dry milk to \$0.09/lb under for butter, and were \$1.05/cwt higher for the all-milk price.

At the same time, the futures markets were also expecting the DMC margin to stay slightly below the \$9.50/cwt maximum Tier 1 coverage level during the fourth quarter of this year and to average about \$8.95/cwt during 2024, which would be \$2.20/cwt higher than this year's projected average margin.



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The **National Milk Producers Federation** (NMPF) develops and carries out policies that advance dairy producers and the cooperatives they own. NMPF's member cooperatives produce more than two-thirds of U.S. milk, making NMPF dairy's voice on Capitol Hill and with government agencies.