

## Overview

*Dairy prices through this year's second half are on track to be the highest since 2014's record highs. This recovery, combined with assistance from the new Dairy Margin Coverage program, doesn't mean a return to full prosperity, but the improvements should help stop the bleeding, and perhaps begin healing balance sheets.*

*Second-half milk prices may average \$19.10 per hundredweight, according to mid-August CME futures forecasts, compared to \$17.45 per hundredweight in the first six months of 2019. Production levels better aligned with demand, along with world markets that are stabilizing in spite of trade-policy headwinds, are the main factors propelling the improving commercial outlook.*

## Commercial Use of Dairy Products

Total dairy product consumption growth has outpaced production in recent months, encouraging stronger milk prices during the second half of 2019 despite a drop in exports from last year's first-half surge. Increases in milk and even milk-solids production have slowed nearly to a halt after several years of expansion. Improvements have already occurred in U.S. nonfat dry milk prices; meanwhile, July's cheese prices presage a higher level for this important contributor to farm milk prices, which should be sustained through the end of the year. Also, butter prices this year may exceed the 2017 record of \$2.33 per pound.

While consumption of fresh dairy products, namely fluid milk and yogurt, continued to slide during 2019's second quarter, American-type cheese stocks tightened, as domestic

commercial use grew during the quarter despite lower production. Use of all other cheese advanced even more strongly, as did production. Total domestic use of all dairy products on a component weighted-average milk equivalent basis was up by over four percent during the period, a time during which milk solids production was essentially flat.

## U.S. Dairy Trade

U.S. exports of all major products except cheese were down sharply from a year earlier during the second quarter of 2019. Exports of butter and AMF declined as increased domestic consumption of milkfat in a broad variety of products continued to draw cream away from production and exports of those products. Exports of dry skim ingredient products reverted to their general levels of 2015–2017

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Domestic Commercial Use	Apr–Jun 2019	Apr–Jun 2018	2018–2019 Change	Percent Change
	(million pounds)			
Total Fluid Milk Products	11,165	11,381	-216	-1.9%
Yogurt	1,083	1,103	-20	-1.8%
Butter	427	423	4	1.0%
American-type Cheese	1,259	1,245	14	1.1%
All Other Cheese	1,871	1,777	94	5.3%
Total Cheese	3,130	3,022	108	3.6%
Nonfat Dry Milk/Skim Milk Powders	248	195	53	26.9%
All Products (milk equiv., milkfat basis)	52,761	51,503	1,258	2.4%
All Products (milk equiv., skim solids basis)	46,617	44,239	2,378	5.4%
All Products (milk equiv., total solids basis)	48,468	46,421	2,047	4.4%

### U.S. Dairy Trade *from page 1*

following very strong, but temporary, surges during the first half of 2018. The growth in cheese exports is welcome following last year's disruptive tariff actions, which began after May 2018. On balance, the percentage of U.S. milk-solids production devoted to exports in the second quarter of 2018 fell by more than 3 percent of total U.S. production from a year ago, from 17.4 percent to 14.3 percent.

Looking ahead, the normalization of trade with Mexico after last spring's agreement to drop retaliatory tariffs against U.S. cheese should buoy exports to U.S. dairy's biggest trading partner. Still, China remains a wound to dairy trade, one that could be aggravated by new rounds of tariffs, as the U.S. and China have threatened. Measured on a milk solids basis, U.S. dairy exports to China during the second half of 2018 were down by 40 percent from the first half, before the various tariff disputes with China began. U.S.

China exports during the first half of 2019 were 55 percent below those a year earlier, by the same measure.

Dairy imports were equal to 3.8 percent of U.S. milk solids production during the second quarter of 2019, up from 3.1 percent a year earlier. Of these imported solids, 21 percent were imported as cheese, 27 percent were milk protein concentrate and casein, and 12 percent were butter and anhydrous milkfat – a fairly typical mix in recent years.

## Milk Production

Monthly dairy cow numbers in the United States had been dropping below year-earlier levels by steadily larger amounts during the second half of 2018, but the year-over-year decline has stabilized this year at between 80 and 100 thousand fewer cows. This herd reduction has been necessary to accommodate turbulence in dairy exports and offset increases in milk solids production per cow, which have

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U.S. Dairy Exports	Apr–Jun 2019	Apr–Jun 2018	2018–2019 Change	Percent Change
		(metric tons)		
Butter	4,271	8,330	-4,058	-49%
Anhydrous Milk Fat /Butteroil	1,669	4,382	-2,713	-62%
Cheddar Cheese	16,016	12,551	3,465	28%
American–type Cheese	16,146	12,618	3,528	28%
All Other Cheese	79,432	84,540	-5,108	-6%
Total Cheese	95,578	97,158	-1,580	-2%
Nonfat Dry Milk /Skim Milk Powder	163,055	202,907	-39,852	-20%
Whole Milk Powder	8,615	13,576	-4,961	-37%
Dry Whey	39,621	61,629	-22,008	-36%
Whey Protein Concentrate/Isolate	45,063	55,102	-10,039	-18%
Lactose	95,378	108,208	-12,829	-12%
Percent of U.S. Milk Solids Exported	14.3%	17.4%	-3.1%	-18%

  

U.S. Dairy Imports	Apr–Jun 2019	Apr–Jun 2018	2018–2019 Change	Percent Change
		(metric tons)		
Butter	10,319	7,599	2,720	36%
Cheese	42,130	41,918	212	1%
Nonfat Dry Milk/Skim Milk Powder	28	637	-609	-96%
MPC (all protein levels)	16,814	13,107	3,707	28%
Casein	16,689	13,457	3,232	24%
Percent of U.S. Milk Solids Imported	3.8%	3.1%	0.7%	22%

### Milk Production *from page 2*

persistently outpaced growth in total domestic dairy consumption. Total milk production during the second quarter was virtually flat from a year ago, while total milk solids production increased by less than half a percent. All these developments indicate stronger milk and dairy product prices in coming months.

## Dairy Products

Flat milk production and strong growth in domestic consumption of Italian-type cheese appears to have diverted milk away from American-type cheese production and toward producing

other types of cheeses during the second quarter. This combination augurs well for cheddar cheese prices during the second half of 2019.

## Dairy Product Inventories

Stocks of butter are following typical seasonal patterns, peaking generally in June.

Stocks of American-type cheese and nonfat dry milk are in line with long-term trends for days of commercial use on hand. Holdings of other than American-type cheese reached a record of 616 million pounds this past April, despite strong domestic demand growth and increased exports.

Milk and Dairy Products Production	Apr–Jun 2019	Apr–Jun 2018	2018–2019 Change	Percent Change
<b>Milk Production</b>				
Cows (1,000 head)	9,329	9,418	-89	-0.9%
Per Cow (pounds)	5,976	5,928	48	0.8%
Total Milk (million pounds)	55,752	55,831	-79	-0.1%
Total Milk Solids (million pounds)	7,109	7,087	22	0.3%
<b>Dairy Products Production</b>		(million pounds)		
<b>Cheese</b>				
American Types	1,302	1,316	-14	-1.1%
Cheddar	936	951	-14	-1.5%
Italian Types	1,421	1,373	49	3.5%
Mozzarella	1,125	1,073	52	4.9%
Total Cheese	3,268	3,229	39	1.2%
Butter	472	487	-15	-3.2%
<b>Dry Milk Products</b>				
Nonfat Dry Milk	491	487	4	0.8%
Skim Milk Powder	115	159	-45	-28.1%
Dry Whey	236	258	-23	-8.8%
Whey Protein Concentrate	123	125	-2	-1.9%
<b>Dairy Product Inventories</b>	Jun 2019	May 2019	Jun 2018	2018–2019 Change
		(million pounds)		
Butter	328	314	337	-3%
American Cheese	785	787	800	-2%
Other Cheese	597	601	588	1%
Nonfat Dry Milk	289	284	303	-5%

## Dairy Product and Federal Order Class Prices

Following several years of globally oversupplied dried skim milk, AMS survey prices for nonfat dry milk have finally risen sustainably over one dollar a pound over just the past few months – for the first time in over four years. The AMS cheddar cheese survey price for July was the highest this monthly cheese price had been since the end of 2014. Both price movements reflected some light appearing at the end of a long tunnel of excess production, during which even

record-high butter prices haven't lifted farm milk prices to financially-sustainable levels.

U.S. milk production that has struggled to find a market during this period has been channeled heavily into cheddar cheese produced in 500-pound barrels. In June, AMS began reporting the separate monthly prices compiled from the National Dairy Product Sales Report (NDPSR) for block and barrel cheddar cheese, even though only the combined NDPSR cheddar cheese price is used in the federal milk marketing order product price formulas. The move effectively recognizes dairy's concern about recent-year deviations

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Dairy Product and Federal Order Prices	Jul 2019	Jun 2019	Jul 2018	2018–2019 Change
<b>AMS Commodity Prices</b>		(per pound)		
Butter	\$2.389	\$2.366	\$2.260	\$0.130
Cheddar Cheese	\$1.824	\$1.691	\$1.487	\$0.337
40-Pound Blocks	\$1.849	\$1.746	\$1.576	\$0.273
500-Pound Barrels	\$1.763	\$1.607	\$1.380	\$0.383
Nonfat Dry Milk	\$1.039	\$1.043	\$0.782	\$0.257
Dry Whey	\$0.363	\$0.364	\$0.337	\$0.026
<b>Class Prices for Milk</b>		(per hundredweight)		
Class I Mover	\$17.18	\$17.07	\$15.36	\$1.82
Class III	\$17.55	\$16.27	\$14.10	\$3.45
Class IV	\$16.90	\$16.83	\$14.14	\$2.76
<b>Retail Dairy Product Prices</b>				
Fluid Whole Milk (per gallon)	\$3.031	\$3.054	\$2.839	\$0.192
Cheddar Cheese (per pound)	\$5.349	\$5.254	\$5.065	\$0.284
Butter (per pound)	\$3.977	\$3.921	\$4.110	-\$0.133
Milk and Feed Prices	Jun 2019	May 2019	Jun 2018	2018–2019 Change
<b>Producer Prices</b>				
All Milk (per cwt.)	\$18.10	\$18.00	\$16.30	\$1.80
<b>Feed Prices</b>				
Corn (per bushel)	\$3.98	\$3.63	\$3.58	\$0.40
Soybean Meal (per ton)	\$325	\$298	\$356	-\$31
Alfalfa Hay (per ton)	\$205	\$213	\$181	\$24
DMC Feed Cost (per cwt.)	\$9.47	\$9.00	\$8.93	\$0.53
DMC Margin (per cwt.)	\$8.63	\$9.00	\$7.37	\$1.27

## Dairy Product and Federal Order Class Prices *from page 4*

from the traditional 3-cent price differential between cheddar cheese produced in the two forms. This difference has averaged 11.6 cents on the CME spot market and 10.7 cents in the AMS survey price this year through early August.

Beginning in May, the federal order Class I mover price has been set by a new formula mandated in the 2018 farm bill. In the four months since the change, this has resulted in an average \$0.55 per cwt. higher Class I price at 3.5 percent fat than under the old “higher-of” mover.

## Milk and Feed Prices

The U.S. Department of Agriculture has improved the Dairy Margin Coverage (DMC) program, the successor to the previous Margin Protection Program for Dairy, by more accurately reflecting the actual cost of the hay producers feed to their cattle. Specifically, USDA has incorporated higher-valued, dairy-quality alfalfa into the alfalfa hay price data used to calculate the monthly DMC milk price-feed cost margin. The new formula hay price is the simple average of

- The average price received by farmers throughout the United States for all grades of alfalfa, and
- The average price received for premium and supreme grade alfalfa hay in the five largest milk producing states.

Previously, the MPP program formula used only the lower, U.S. average price for all grades of alfalfa. The change increased the calculated DMC feed cost by an average of \$0.20 per cwt. of milk for the first six months of this year. The higher calculated cost in turn reduces the DMC margin

by the same amount, thereby increasing the payments for coverage at the higher margin levels available under the program. The average DMC monthly payments for program coverage at the maximum \$9.50 per cwt. level is \$1.04 per cwt. for the first six months of 2019, prior to the reduction made as part of federal sequestration and payment of premiums.

## Looking Ahead

As of mid-August, USDA’s price forecasts largely agreed with the dairy futures markets that producer milk prices for all of 2019 would be about \$2 per cwt. higher than in 2018. USDA’s DMC Decision Tool projected the DMC margin would average about \$9.20 per cwt. for all of 2019, and would not rise above the maximum \$9.50 per cwt. program coverage level until August. Average payments for that level of coverage were projected at just over \$0.50 per cwt. for the year, net of sequestration, for up to 5 million pounds of a producer’s production history. After factoring in the cost of premiums, the final net gain for farmers would be about \$0.35 per cwt. Producers can sign up to participate in the program this year through Sept. 20.

Of course, the Dairy Margin Coverage program, while providing producers with a cushion to support the production of roughly their first 200 cows, for most producers is not adequate on its own to remedy the drain on farmer resources seen since 2014. An improved price is fundamental to industry health. Fortunately, most dairy economic signals are in favor of price improvement in the second half of this year, aiding significantly in sector-wide recovery. While continued gains will be necessary to put dairy on a solid path to recovery, 2019 appears to be a more positive year for farmers.

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The **National Milk Producers Federation (NMPF)** is a farm commodity organization representing most of the dairy marketing cooperatives serving the U.S.