

## Overview

*Tighter markets and stronger prices for milk and dairy products persisted through the summer and are poised to continue into fall. Positive signs include significant increases in both domestic use and exports of cheese, a slight drop in total milk production accompanied by just a slight increase in total milk solids production, and a drop in American-type cheese production. The July all-milk price reported by USDA was the third-highest monthly all-milk price since 2014, while the August federal order Class III price was the highest seen since 2014. Butter prices have stabilized at a relatively high level between the mid-\$2.20s and mid-\$2.30s a pound since early last year. The current milk price outlook remains favorable through the end of this year and into 2020.*

## Commercial Use of Dairy Products

Commercial U.S. cheese use expanded at a healthy pace during the May–July period for both American and other types of cheese, while total fluid milk sales continued their long-term decline. The growth in American-type cheese use outpaced production growth, driving recent price gains for cheddar cheese and, by extension, the milk prices received by U.S. dairy farmers. Use of all milk solids in the domestic market grew faster than production during the period.

## U.S. Dairy Trade

U.S. cheese exports kept rising year-over-year during the May–July period, while exports of dairy ingredient products, which make up most of U.S. dairy exports, further receded from last year’s relatively high levels. During the first seven

months of 2019, the United States exported 6.4 percent of its total cheese production. Cheese exports had grown strongly by this measure, from 2.4 percent in 2009 to 7.1 percent in 2014, but levels subsequently receded and then struggled to regain that previous high level, complicated by current trade turbulence. Butter and AMF exports have been dropping, as strong domestic milkfat demand has outpaced domestic production this year, leaving less available for export.

Robust domestic demand for milkfat has drawn increased imports of butter and milkfat, and imports of concentrated milk proteins, including MPC and casein, are also up substantially. Cheese imports continue to recede in significance. During the first seven months of 2019, the United States imported the equivalent of 2.8 percent of its total cheese production, the lowest such percentage since at least 1995.

Domestic Commercial Use	May–Jul 2019	May–Jul 2018	2018–2019 Change	Percent Change
	(million pounds)			
Total Fluid Milk Products	10,968	11,139	-171	-1.5%
Yogurt	1,062	1,107	-45	-4.1%
Butter	425	437	-12	-2.7%
American-type Cheese	1,273	1,236	37	3.0%
All Other Cheese	1,899	1,805	94	5.2%
Total Cheese	3,172	3,041	131	4.3%
Nonfat Dry Milk/Skim Milk Powders	242	183	59	32.3%
All Products (milk equiv., milkfat basis)	53,647	52,870	777	1.5%
All Products (milk equiv., skim solids basis)	46,730	44,735	1,994	4.5%
All Products (milk equiv., total solids basis)	48,804	47,168	1,636	3.5%

## Milk Production

Milk production in the United States was down slightly from a year earlier during the May–July period, as the drop in cow numbers just edged out the rise in production per cow. Milk solids production rose slightly by 0.2 percent. The long-in-coming curbing of U.S. milk production growth has been essential for stronger milk prices, but it has tended to concentrate milk production within the higher-producing states. The five largest milk-producing states, which are disbursed throughout the country and together produced over half the nation’s milk during the first half of 2019, increased their collective milk production by 1.9 percent during the first half. Production in the other 45 states dropped by a collective 1.6 percent at the same time. Licenced dairy herd numbers in those top five states dropped by 6 percent between 2017 and 2018 and by 7.2 percent in the other 45

states. Concentration of milk production among the states has generally been quite stable. A decade ago, the top five states produced almost the same proportion of the U.S. supply as during the first half of this year.

## Dairy Products

Overall production of dairy products did not increase significantly relative to a year ago during the May–July period, mirroring the modest growth in total milk solids coming from the nation’s dairy farms. Total cheese production was up by less than a percentage point, with mozzarella cheese demand requiring diverting milk away from producing cheddar and other American types. Lower exports of skim milk powder shifted production of this export-oriented product to nonfat dry milk, more commonly used in domestic food processing.

U.S. Dairy Exports	May–Jul 2019	May–Jul 2018	2018–2019 Change	Percent Change
		(metric tons)		
Butter	4,180	8,085	-3,905	-48%
Anhydrous Milk Fat/Butteroil	1,556	3,473	-1,916	-55%
Cheddar Cheese	13,759	11,641	2,118	18%
American-type Cheese	13,899	11,726	2,173	19%
All Other Cheese	76,961	79,979	-3,018	-4%
Total Cheese	90,860	91,705	-845	-1%
Nonfat Dry Milk/Skim Milk Powder	155,914	181,595	-25,681	-14%
Whole Milk Powder	9,618	12,201	-2,584	-21%
Dry Whey	36,810	58,267	-21,457	-37%
Whey Protein Concentrate/Isolate	45,235	46,255	-1,019	-2%
Lactose	100,942	104,067	-3,125	-3%
Percent of U.S. Milk Solids Exported	14.2%	16.1%	-1.9%	-12%

  

U.S. Dairy Imports	May–Jul 2019	May–Jul 2018	2018–2019 Change	Percent Change
		(metric tons)		
Butter	11,280	8,642	2,638	31%
Cheese	43,067	42,678	389	1%
Nonfat Dry Milk/Skim Milk Powder	28	611	-583	-95%
MPC (all protein levels)	19,269	13,676	5,593	41%
Casein	17,681	15,114	2,566	17%
Percent of U.S. Milk Solids Imported	4.0%	3.2%	0.8%	24%

## Dairy Product Inventories

July inventories of the major dairy product categories remained near their highest levels since 2014 but appear to be tighter when measured by an alternative yardstick – days of commercial use in stock. As commercial use of dairy products has increased, so has the level of product needed to adequately stock supply chains without being excessive. For example, July stocks of nonfat dry milk were 9 percent lower than their post-2014 high level, but 28 percent below their highest level of days of use on hand during that period – a perhaps more accurate signal of tightening supplies, given today’s marketplace.

## Dairy Product and Federal Order Class Prices

The dairy product prices reported by USDA’s Agricultural Marketing Service for August were little changed from July, but the August cheese and nonfat dry milk survey prices were substantially higher than a year earlier. This combination was enough to boost all federal order class prices well above year-ago levels. Retail prices for cheese and fluid milk were also above year-ago levels in August but by much smaller percentages than their corresponding wholesale and federal order class prices. Retail butter prices were below where they were a year earlier in August.

Milk and Dairy Products Production	May–Jul 2019	May–Jul 2018	2018–2019 Change	Percent Change
<b>Milk Production</b>				
Cows (1,000 head)	9,321	9,409	-89	-0.9%
Per Cow (pounds)	5,971	5,925	46	0.8%
Total Milk (million pounds)	55,650	55,748	-98	-0.2%
Total Milk Solids (million pounds)	7,046	7,032	14	0.2%
<b>Dairy Products Production</b>		(million pounds)		
<b>Cheese</b>				
American Types	1,307	1,313	-6	-0.5%
Cheddar	936	957	-21	-2.2%
Italian Types	1,404	1,375	30	2.1%
Mozzarella	1,117	1,082	35	3.3%
Total Cheese	3,269	3,238	30	0.9%
Butter	448	447	2	0.4%
<b>Dry Milk Products</b>				
Nonfat Dry Milk	495	468	27	5.8%
Skim Milk Powder	106	157	-51	-32.4%
Dry Whey	245	263	-18	-6.9%
Whey Protein Concentrate	120	124	-4	-3.4%

Dairy Product Inventories	Jul 2019	Jun 2019	Jul 2018	2018–2019 Change
		(million pounds)		
Butter	330	326	318	4%
American Cheese	776	786	823	-6%
Other Cheese	588	596	590	0%
Nonfat Dry Milk	291	289	317	-8%

## Milk and Feed Prices

The average U.S. all-milk price reported by USDA for July was the third-highest monthly all-milk price since 2014. Recent increases in the price of corn have raised the cost of feeding dairy cattle, as calculated by the feed cost formula for the Dairy Margin Coverage (DMC) program. The July DMC margin was below the program's maximum coverage level \$9.50 per cwt. coverage level, for up to five million pounds of covered milk production history, for the seventh consecutive month in 2019. The price of soybean meal has been dropping in recent months, as has the price

of alfalfa hay, which has been augmented in the formula by including dairy quality alfalfa prices.

## Looking Ahead

The mid-September dairy futures were showing a welcome surge of strength and indicating that U.S. average milk prices during the second half of 2019 would be about \$2.00 per cwt. higher than they were during the first half of the year and about \$2.85 per cwt. higher than during the second half of 2018. Also as of mid-September, USDA estimated that the all-milk price would average \$18.35 per cwt. for all of 2019

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Dairy Product and Federal Order Prices	Aug 2019	Jul 2019	Aug 2018	2018–2019 Change
<b>AMS Commodity Prices</b>		(per pound)		
Butter	\$2.366	\$2.389	\$2.319	\$0.047
Cheddar Cheese	\$1.828	\$1.824	\$1.554	\$0.273
40-Pound Blocks	\$1.864	\$1.849	\$1.589	\$0.275
500-Pound Barrels	\$1.757	\$1.763	\$1.491	\$0.265
Nonfat Dry Milk	\$1.034	\$1.039	\$0.811	\$0.222
Dry Whey	\$0.367	\$0.363	\$0.368	-\$0.001
<b>Class Prices for Milk</b>		(per hundredweight)		
Class I Mover	\$17.89	\$17.18	\$14.15	\$3.74
Class III	\$17.60	\$17.55	\$14.95	\$2.65
Class IV	\$16.74	\$16.90	\$14.63	\$2.11
<b>Retail Dairy Product Prices</b>				
Fluid Whole Milk (per gallon)	\$3.045	\$3.031	\$2.871	\$0.174
Cheddar Cheese (per pound)	\$5.367	\$5.349	\$5.118	\$0.249
Butter (per pound)	\$4.036	\$3.977	\$4.085	-\$0.049

Milk and Feed Prices	Jul 2019	Jun 2019	Jul 2018	2018–2019 Change
<b>Producer Prices</b>				
All Milk (per cwt.)	\$18.70	\$18.10	\$15.40	\$3.30
<b>Feed Prices</b>				
Corn (per bushel)	\$4.16	\$3.98	\$3.47	\$0.69
Soybean Meal (per ton)	\$311	\$325	\$341	-\$30
Alfalfa Hay (per ton)	\$196	\$205	\$179	\$17
DMC Feed Cost (per cwt.)	\$9.43	\$9.47	\$8.68	\$0.75
DMC Margin (per cwt.)	\$9.27	\$8.63	\$6.72	\$2.55

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**Looking Ahead** *from page 4*

and \$18.85 per cwt. for all of 2020, both of which were slightly lower than the dairy futures were then indicating. The Department's DMC Decision Tool projected there was less than a 25 percent probability that the DMC margin would fall below the maximum \$9.50 per cwt. program coverage level for the last five months of 2019. In other words, the markets were expected to generate returns to milk production from August through the end of the year that would be

better than the highest levels for which the program was designed to provide margin assistance.

These signs are becoming increasingly persuasive that 2019 will provide the nation's dairy farmers with their highest annual prices since the year of 2014 and their second-highest annual margins since that record year, after 2017. However, these gains will be relatively modest, allowing many farmers to stabilize their financial conditions but enabling fewer to actually improve them.

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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.