

## Overview

*Milk prices continued to strengthen in August, but production is showing signs of acceleration. This year's slow decline in the rate of U.S. milk production growth was interrupted in July and August, bouncing back to a 2 percent year-over-year increase. Lower feed costs in August helped further improve the month financially for the nation's dairy farmers, as did a drop in the recent rates of American-type cheese production growth. But dairy markets remain mired in a rather ho-hum mode, with low prices for nonfat dry milk, further weakness in dry whey prices, middling cheese prices that are struggling to find a sense of direction, and even some softness in typically strong butter prices as the industry heads into the holiday season. Cheese inventory levels remain a key factor in the dairy situation. As the U.S. Department of Agriculture's (USDA) Dairy Market News recently commented, "large and aging cheese stocks continue to be the thorn in the side of the bull."*

## Commercial Use of Dairy Products

Total fluid milk consumption in the United States was 0.7 percent below a year ago during the May–July period. This was the first time since the beginning of 2017 when the moving three-month fluid milk consumption level declined by less than 1 percent below a year earlier. Total consumption of milkfat in all U.S. fluid milk sales was up by more than 1 percent over a year ago during the period. Domestic consumption of American-type cheese grew strongly during May–July, but domestic consumption of all other types of cheese has been lackluster for over half a year. Growth of all dairy products continued to exceed 1 percent in terms of milkfat. Domestic consumption of all dairy products was still declining when measured on a skim solids basis. The resumption

of growth in U.S. dairy ingredient exports indicates that external markets still represent more attractive sales opportunities for U.S. skim solids.

## U.S. Dairy Trade

Changes in U.S. exports of the major dairy product categories generated a two-fold pattern during June–August. Butter, milkfat and cheese exports showed strong growth over a year ago, after dropping significantly throughout 2016. Dry ingredient exports, however, were all down over a year ago after generally showing positive growth for most of the past year. The percentage of U.S. milk solids production exported during the period was down slightly year-over-year after rising for the past year.

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Domestic Commercial Use	May–Jul 2017	May–Jul 2016	2016–2017 Change	Percent Change
	(million pounds)			
Total Fluid Milk Products	11,505	11,586	-81	-0.7%
Butter	429	419	10	2.3%
American-type Cheese	1,195	1,137	59	5.2%
All Other Cheese	1,739	1,747	-8	-0.5%
Nonfat Dry Milk / Skim Milk Powders	267	316	-50	-15.8%
All Products (milk equiv., milkfat basis)	52,738	51,905	833	1.6%
All Products (milk equiv., skim solids basis)	45,453	45,947	-494	-1.1%

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

More than one-half of both the volume of milk solids and the dollar value of dairy products imported into the United States during June–August consisted of imports of cheese and concentrated milk proteins, i.e., MPC and casein, including caseinates. This pattern is typical of U.S. dairy imports generally. Both of these major import categories were down over last year during June–August in terms of product volume, as they have been since last spring, resulting in a substantial drop over a year ago in the percentage of total U.S. milk solids represented by all U.S. dairy imports.

## Milk Production

Annual growth of the national milking cow herd has stabilized at 0.8 percent in recent months. However, the annual growth rate of U.S. milk production per cow has recently begun to increase, following eight months of declines. This has halted

the steady drop in total U.S. milk production growth over the same period and pushed that rate back up to around 2 percent per year. Expansion of milk production at that rate will make it more difficult to reduce the current significant inventories of American-type cheese and other dairy products, which is needed to produce more robust milk and dairy product prices. Among the largest milk producing states, Wisconsin, Minnesota, New York, Pennsylvania and Ohio have experienced accelerating growth in recent months following general moderation in their rates of milk production expansion.

## Dairy Products

Production of American-type cheese during June-August was less than 1.5 percent above its level a year earlier, and Cheddar production grew slightly more slowly. It was the first running three-month period during which growth in production of both types of cheese did not outpace milk production growth since

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U.S. Dairy Exports	Jun–Aug 2017	Jun–Aug 2016	2016–2017 Change	Percent Change
		(metric tons)		
Butter	6,482	2,569	3,913	152%
Anhydrous Milk Fat /Butteroil	1,737	621	1,116	180%
Cheddar Cheese	11,124	7,457	3,667	49%
American–type Cheese	11,233	7,542	3,692	49%
Total Cheese	88,165	69,479	18,686	27%
Nonfat Dry Milk /Skim Milk Powder	137,056	142,932	-5,876	-4%
Whole Milk Powder	5,782	8,097	-2,315	-29%
Dry Whey	88,498	88,786	-288	0%
Whey Protein Concentrate/Isolate	45,104	49,510	-4,406	-9%
Lactose	89,443	93,386	-3,943	-4%
Percent of Milk Solids Exported	14.2%	15.2%	-0.9%	-6%

U.S. Dairy Imports	Jun–Aug 2017	Jun–Aug 2016	2016–2017 Change	Percent Change
		(metric tons)		
Butter	7,528	6,156	1,373	22%
Cheese	44,070	47,474	-3,403	-7%
Nonfat Dry Milk /Skim Milk Powder	266	14	252	1788%
MPC (all protein levels)	12,287	15,388	-3,101	-20%
Casein	17,854	17,949	-95	-1%
Percent of Milk Solids Imported	3.5%	4.0%	-0.5%	-11%

**Dairy Products** *from page 2*

before the fourth quarter of 2016. Italian-type cheese growth outpaced that of American types for the first time in 2017.

## Dairy Product Inventories

Stocks of butter and cheese eased down in August from levels of a month earlier, consistent with reduced production and increased consumption, as previously noted. The lower stocks were reflected in stronger prices in August for these products, but price improvements were not continued in September. Further reduction in stocks will be necessary for cheese prices to gain significant traction. The USDA/Agricultural Marketing

Service's *Dairy Market News* report for Oct. 6 commented that "large and aging cheese stocks continue to be the thorn in the side of the bull."

## Dairy Product and Federal Order Class Prices

Cheddar cheese prices reported by USDA's AMS have ranged between \$1.50-\$1.70 per pound during 2017. That band of oscillation has narrowed in recent months, but no clear sense of direction has emerged. The market has been struggling to balance recent strength in domestic consumption of American-type cheese and growth in cheese exports with continuing high production

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Milk and Dairy Products Production	Jun–Aug 2017	Jun–Aug 2016	2016–2017 Change	Percent Change
<b>Milk Production</b>				
Cows (1,000 head)	9,404	9,329	75	0.8%
Per Cow (pounds)	5,782	5,721	61	1.1%
Total Milk (million pounds)	54,372	53,371	1,001	1.9%
<b>Dairy Products Production</b>				
<b>Cheese</b>		(million pounds)		
American Types	1,202	1,186	17	1.4%
Cheddar	857	846	11	1.3%
Italian Types	1,338	1,305	33	2.5%
Mozzarella	1,038	1,016	23	2.2%
Total Cheese	3,092	3,020	72	2.4%
Butter	407	406	1	0.2%
<b>Dry Milk Products</b>				
Nonfat Dry Milk	448	415	33	7.8%
Skim Milk Powder	137	151	-14	-9.1%
Dry Whey	284	239	46	19.1%
Whey Protein Concentrate	121	112	9	7.6%

Dairy Product Inventories	Aug 2017	Jul 2017	Aug 2016	2016–2017 Change
		(million pounds)		
Butter	280	307	319	-12%
American Cheese	801	832	742	8%
Other Cheese	533	538	499	7%
Nonfat Dry Milk	308	296	235	31%

**Dairy Product and Federal Order Class Prices** *from page 3*

and stocks of cheese. This struggle will likely continue, given the plateauing of U.S. milk production growth at around 2 percent annually. The drop in the Class III and particularly the Class IV price from August to September indicates that the September all-milk price will not likely exceed \$18.00 per hundredweight.

## Milk and Feed Prices

USDA's National Agricultural Statistics Service (NASS) announced the August U.S. average all-milk price at \$18.00 per hundredweight, \$0.70 higher than the July national milk price. This was fully consistent with the August federal order class prices, which,

compared with a month earlier, featured a flat Class IV price, a modest increase in the Class I price and an increase of just over a dollar in the Class III price. All three feed cost components of the Margin Protection Program (MPP) feed cost formula were down in August from July, which dropped the monthly MPP feed cost calculation by \$0.49 per hundredweight and therefore raised the monthly MPP margin by \$1.19 per hundredweight from July to August. The bi-monthly MPP margin for the July–August period was \$9.67 per hundredweight.

Average retail prices of dairy products reported by the U.S. Bureau of Labor Statistics showed a further drop of \$0.05 a gallon in the retail price of fluid whole milk in August, marking the fifth-straight month of modest declines in the consumer price

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Dairy Product and Federal Order Prices	Sept 2017	Aug 2017	Sept 2016	2016–2017 Change
<b>AMS Commodity Prices</b>		(per pound)		
Butter	\$2.530	\$2.658	\$2.078	\$0.452
Cheese	\$1.661	\$1.666	\$1.751	-\$0.091
Nonfat Dry Milk	\$0.850	\$0.873	\$0.885	-\$0.035
Dry Whey	\$0.417	\$0.435	\$0.306	\$0.111
<b>Class Prices for Milk</b>		(per hundredweight)		
Class I Mover	\$16.71	\$16.72	\$16.56	\$0.15
Class III	\$16.36	\$16.57	\$16.39	-\$0.03
Class IV	\$15.86	\$16.61	\$14.25	\$1.61

Milk and Feed Prices	Aug 2017	Jul 2017	Aug 2016	2016–2017 Change
<b>Producer Prices</b>				
All Milk (per cwt.)	\$18.00	\$17.30	\$17.10	\$0.90
<b>Feed Prices</b>				
Corn (per bushel)	\$3.27	\$3.49	\$3.21	\$0.06
Soybean Meal (per ton)	\$301	\$326	\$341	-\$40
Alfalfa Hay (per ton)	\$147	\$152	\$138	\$9
2014 Farm Bill Feed Cost (per cwt.)	\$7.73	\$8.22	\$7.84	-\$0.10
2014 Farm Bill Margin (per cwt.)	\$10.27	\$9.08	\$9.26	\$1.00
<b>Retail Dairy Product Prices</b>				
Fluid Milk (per gallon)	\$3.168	\$3.219	\$3.141	\$0.027
Cheddar Cheese (per pound)	\$4.862	\$4.851	\$5.272	-\$0.410

### **Milk and Feed Prices** *from page 4*

of fluid milk. The BLS-reported average retail price of natural Cheddar cheese rose by a penny a pound in August from July, continuing a three-month run of small increases in the retail price of cheese.

## **Looking Ahead**

The mid-October CME dairy futures indicated that the August U.S. average all-milk price would likely be close to the peak for milk prices for at least the following year. At the same time, CME futures projected moderate increases in feed costs over

the same period, but not to the extent that the MPP margin would drop below \$8 per hundredweight. USDA has become more bullish in its outlook for U.S. milk production, and has raised its monthly forecast of 2017 production for the second time in October, after steadily lowering it for most of the year. The department also raised its latest 2018 production forecast after dropping it since May. It now projects 2017 will be up by 1.9 percent over 2016, and production next year will grow by another 2.1 percent. In recent months, USDA has been generally lowering its monthly forecasts of the U.S. average all-milk price for 2017 and 2018, but both are still higher than the dairy futures markets are currently indicating.

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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.