

Overview

Positive aspects of the current U.S. dairy industry situation outlook include a 4.7 percent annual increase for total commercial use of milk in all products, domestic and export, during March–May, when measured on a milk equivalent of total solids basis. Of total use, domestic use was 1.9 percent higher, while exports grew by over 19 percent. Although many year-over-year comparisons are currently less informative than usual given last year’s pandemic, growth in total commercial use exceeded growth in both milk and milk solids production during the March–May period. That growth, plus the heat and drought situation in the western states, should start to improve milk prices and margins, although the current situation continues to reflect higher production earlier in the year.

Commercial Use of Dairy Products

The 5.3 percent drop from a year earlier in fluid milk use during March–May was the largest 3-month annual drop for this product category since at least 2001. However, the comparison was to a period in 2020 when fluid use was uncharacteristically increasing due to the pandemic. Year-over-year growth in domestic yogurt consumption has been positive every month since April 2020, with overall consumption from June 2020 through last May up 6.9% percent above the previous time period. Longer term, monthly growth was mostly positive between 1997 and 2014, then mostly negative until 2020, when it was revived during the pandemic months.

Other consumer-type dairy products have shown less consistent domestic growth patterns during the pandemic

months. Butter consumption growth was strongest during the early months of the pandemic, while that of American-type cheese improved fairly steadily throughout those months, and other-type cheese was mostly flat, with a large drop in April 2020 and a large spike in April 2021. Total domestic use of milk in all products expanded by almost 2 percent from a year earlier, with expansion significantly stronger in milkfat than in skim solids.

U.S. Dairy Trade

May exports barely beat out April 2018 to become the highest ever when measured as a percent of U.S. milk solids production during a single month, 18.76% vs. 18.72%. This was driven by the usual significant product categories of SMP, dry whey products and lactose, but also by significant

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Domestic Commercial Use	Mar–May 2021	Mar–May 2020	2020–2021 Change	Percent Change
	(million pounds)			
Total Fluid Milk Products	11,280	11,909	-629	-5.3%
Yogurt	1,246	1,180	66	5.6%
Butter	519	537	-17	-3.2%
American–type Cheese	1,371	1,250	121	9.7%
All Other Cheese	1,902	1,777	125	7.1%
Total Cheese	3,273	3,026	247	8.2%
Dry Skim Milk	160	221	-61	-27.8%
All Products (milk equiv., milkfat basis)	55,219	53,068	2,151	4.1%
All Products (milk equiv., skim solids basis)	45,679	45,337	342	0.8%
All Products (milk equiv., total solids basis)	48,612	47,699	913	1.9%

U.S. Dairy Trade *from page 1*

volume increases in butter and ice cream. May continues the series of record and near-record high monthly exports this year by this measure, raising the prospect that calendar year 2021 might also set a record for U.S. dairy exports as a percentage of solids production, though ongoing problems with shipping and port congestion could complicate this prospect.

Imports of the major U.S. dairy import categories, cheese, concentrated milk proteins and butter, all increased by double-digits from a year earlier during March–May, although total imports, as a percent of U.S. milk solids production, were stable.

Milk Production

USDA reported 9.505 million dairy cows in the United States in May, the highest monthly national dairy cow herd since mid-1994. May U.S. milk production was preliminarily reported to be 4.6 percent higher than May 2020 production, but, as

discussed in the previous month's issue of the *Dairy Market Report*, year-over-year comparisons will not be particularly informative for much of 2021 due to unusual production patterns in 2020. Compared with the more normal monthly patterns of U.S. milk production in 2019, 2021 production was up over two years earlier by 5.0 percent in March and 4.1 percent in May. Furthermore, daily average milk production dropped significantly from April to May this year, indicating a likely April peak for the spring flush, compared with May flush peaks in 2017 through 2019. Total milk solids production was 4.1 percent higher than a year earlier during March–May, while liquid raw milk production was up by 3.4 percent during the period.

Dairy Products

American cheese production annual growth exceeded total milk and milk solids production growth by a significant amount during March–May, while other cheese production grew at

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U.S. Dairy Exports	Mar–May 2021	Mar–May 2020	2020–2021 Change	Percent Change
	(metric tons)			
Butter	13,508	4,143	9,365	226%
Anhydrous Milk Fat / Butteroil	1,991	1,398	593	42%
Cheddar Cheese	11,836	12,191	-355	-3%
American-type Cheese	11,909	12,239	-330	-3%
All Other Cheese	96,259	83,458	12,802	15%
Total Cheese	108,169	95,697	12,471	13%
Dry Skim Milk	253,757	209,446	44,311	21%
Whole Milk Powder	13,463	11,514	1,949	17%
Dry Whey	66,168	50,662	15,506	31%
Whey Protein Concentrate/Isolate	51,072	48,524	2,548	5%
Lactose	112,674	101,962	10,712	11%
Percent of U.S. Milk Solids Exported	18.6%	16.1%	2.5%	15%

U.S. Dairy Imports	Mar–May 2021	Mar–May 2020	2020–2021 Change	Percent Change
	(metric tons)			
Butter	12,709	10,187	2,522	25%
Cheese	43,036	34,563	8,473	25%
Dry Skim Milk	77	269	-193	-72%
MPC (all protein levels)	15,450	12,902	2,548	20%
Casein	17,680	16,106	1,574	10%
Percent of U.S. Milk Solids Imported	3.2%	3.2%	0.0%	-1%

Dairy Products from page 2

about the same rate as milk production and butter production dropped. However, as with milk production, comparisons with 2020 are misleading since cheese production was substantially depressed during the early pandemic months of March–May 2020, while butter production was unusually strong.

Dairy Product Inventories

Although month-ending inventories of cheese, butter and lactose have risen over the past year and a half, evaluating inventories by the metric of days of total use in stock provides a more nuanced picture that isn't subject to comparisons with

an atypical 2020. By this metric, cheese inventories do not appear problematic, and neither are butter stocks yet.

Dairy Product and Federal Order Class Prices

Monthly butter and cheese prices dropped in June following several months of general improvement, while nonfat dry milk prices continued to strengthen. Dry whey prices plateaued in June following a long steady rise, during which they more than doubled from last September. Class III prices experienced a major correction in June, falling by \$1.75/cwt from May. Futures markets had been

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Milk and Dairy Products Production	Mar–May 2021	Mar–May 2020	2020–2021 Change	Percent Change
Milk Production				
Cows (1,000 head)	9,493	9,376	117	1.2%
Per Cow (pounds)	6,212	6,086	126	2.1%
Total Milk (million pounds)	58,970	57,058	1,912	3.4%
Total Milk Solids (million pounds)	7,648	7,345	303	4.1%
Dairy Products Production		(million pounds)		
Cheese				
American Types	1,422	1,334	88	6.6%
Cheddar	1,011	960	51	5.3%
Italian Types	1,466	1,416	50	3.6%
Mozzarella	1,146	1,119	27	2.4%
Total Cheese	3,468	3,275	193	5.9%
Butter	568	600	-31	-5.2%
Dry Milk Products				
Nonfat Dry Milk	599	534	65	12.3%
Skim Milk Powder	122	164	-42	-25.5%
Dry Whey	232	243	-11	-4.7%
Whey Protein Concentrate	124	117	7	6.2%

Dairy Product Inventories	May 2021	Apr 2021	May 2020	2020–2021 Change
		(million pounds)		
Butter	402	386	376	7%
American Cheese	831	827	820	1%
Other Cheese	635	622	634	0%
Dry Skim Milk	358	327	350	2%
Dry Whey	66	60	86	-23%

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

anticipating this correction for several weeks, and it has put Class III prices in closer alignment with the other class prices. This has resulted in at least a temporary reversion, starting in June, to positive producer price differentials in the component pricing federal orders.

Retail prices for fluid milk continued to increase in June, while retail cheese prices dropped further. The U.S. Bureau of Labor Statistics reported that the consumer price index (CPI) for fresh whole milk was 5.6 percent higher in June

than in June 2020, while the June CPI for cheese and related products was down by 0.9 percent from a year earlier. Overall inflation, as measured by the CPI for all items, rose by 5.3 percent from a year earlier in June.

Milk and Feed Prices

The May margin under the Dairy Margin Coverage program dropped 5 cents from April to \$6.89/cwt, which will generate a larger May payment of \$2.61/cwt for \$9.50/cwt coverage. The May U.S. average all-milk price was up by \$0.80/cwt from

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Dairy Product and Federal Order Prices	Jun 2021	May 2021	Jun 2020	2020–2021 Change
NDPSR Dairy Product Prices				
		(per pound)		
Butter	\$1.793	\$1.811	\$1.707	\$0.087
Cheddar Cheese	\$1.644	\$1.821	\$2.215	-\$0.571
40-Pound Blocks	\$1.606	\$1.807	\$2.257	-\$0.651
500-Pound Barrels	\$1.651	\$1.804	\$2.148	-\$0.498
Nonfat Dry Milk	\$1.270	\$1.239	\$0.911	\$0.359
Dry Whey	\$0.644	\$0.650	\$0.364	\$0.280
Federal Order Class Prices for Milk				
		(per hundredweight)		
Class I Mover	\$18.29	\$17.10	\$11.42	\$6.87
Class II	\$16.66	\$16.22	\$12.99	\$3.67
Class III	\$17.21	\$18.96	\$21.04	-\$3.83
Class IV	\$16.35	\$16.16	\$12.90	\$3.45
Retail Dairy Product Prices				
Fluid Whole Milk (per gallon)	\$3.557	\$3.497	\$3.198	\$0.359
Lowfat Fluid Milk (per gallon)	\$3.165	\$3.078	\$2.811	\$0.354
Cheddar Cheese (per pound)	\$5.386	\$5.421	\$5.619	-\$0.233
Butter (per pound)	\$3.585	\$3.561	\$3.491	\$0.094

Milk and Feed Prices	May 2021	Apr 2021	May 2020	2020–2021 Change
Producer Prices				
All Milk (per cwt.)	\$19.20	\$18.40	\$13.60	\$5.60
Feed Prices				
Corn (per bushel)	\$5.91	\$5.31	\$3.20	\$2.71
Soybean Meal (per ton)	\$421	\$413	\$289	\$132
Alfalfa Hay (per ton)	\$210	\$199	\$195	\$15
DMC Feed Cost (per cwt.)	\$12.31	\$11.46	\$8.23	\$4.09
DMC Margin (per cwt.)	\$6.89	\$6.94	\$5.37	\$1.51

Milk and Feed Prices *from page 4*

April to \$19.20/cwt, but the May DMC feed cost calculation was \$0.85/cwt higher. This was the largest one-month jump in the margin programs' feed cost calculation since margin protection first became the federal safety-net program for dairy in early 2014. The price of corn rose from April to May by the equivalent of \$0.64/cwt of milk in the formula, which was also the highest ever single-month increase in the formula's corn price component since the inception of margin protection for dairy, while the blended alfalfa hay price increased by the equivalent of \$0.15/cwt of milk in the formula, the highest single-month increase in the formula's alfalfa price component since premium alfalfa was added to it at the beginning of 2019.

Looking Ahead

The current futures-based price outlook indicates that the national all-milk price will not likely rise much more than a dollar per hundredweight above its May level through the end of 2021, while the DMC program's feed cost calculation may not recede much from May. Together, these outlooks raise the prospect that margins could stay below \$9.50/cwt for all of 2021. USDA reported that estimated DMC payments exceed \$550 million as of July 12. Meanwhile, USDA estimates the U.S. all-milk price would average \$18.32/cwt during calendar year 2021, while the dairy futures were indicating this average would be about \$18.80/cwt.

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