

Overview

Low milk prices and high feed costs – a.k.a. depressed margins – are slowly bringing U.S. milk production back in line with demand. Daily average production was down almost 2 percent from the spring flush high in April, a larger-than-usual such drop.

Futures markets have taken notice, ending the long slide in their collective estimate of calendar year 2021 average milk prices beginning in mid-May. Rising cheese prices have been a key driver of this recent recovery. Although milk production is being channeled disproportionately into American-type cheese, growth in commercial use of such cheese hit double-digit percentages during the second quarter, while use of other types of cheese grew by fully half this amount. Domestic use of milk in all products showed a 1 percent gain, while exports continued their march toward a new record as a percent of domestic milk solids production.

Still, the price recovery is fragile: The delta-variant-driven fourth wave of the coronavirus pandemic is casting growing uncertainty over future demand. Product prices realigned themselves in July for the second month to produce federal order class prices that again generated positive producer price differentials in the component pricing orders.

Commercial Use of Dairy Products

Although the pandemic has disrupted previous patterns of dairy product consumption, the second quarter again reflected the decades-long trend of growing cheese and declining fluid milk consumption, although with exaggerated percentages in both cases. Cheese use was unusually depressed in spring 2020, as the pandemic's initial onslaught impacted food service, just as it boosted fluid, and butter, use when consumers turned instead to more cooking and

eating at home. On a total solids, milk equivalent basis, annual growth in total domestic disappearance of milk in all products was 1 percent, while annual growth in total disappearance, including exports, was 3 percent.

U.S. Dairy Trade

June continues the recent series of record high running 3-month, as well as year-to-date, exports as a percentage of U.S. total milk solids production. This keeps the U.S. dairy

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Domestic Commercial Use	Apr–Jun 2021	Apr–Jun 2020	2020–2021 Change	Percent Change
	(million pounds)			
Total Fluid Milk Products	10,745	11,298	-553	-4.9%
Yogurt	1,188	1,140	48	4.2%
Butter	471	514	-43	-8.3%
American-type Cheese	1,392	1,257	136	10.8%
All Other Cheese	1,905	1,807	98	5.4%
Total Cheese	3,297	3,063	234	7.6%
Dry Skim Milk	123	262	-140	-53.3%
All Products (milk equiv., milkfat basis)	54,635	52,828	1,807	3.4%
All Products (milk equiv., skim solids basis)	44,859	44,985	-126	-0.3%
All Products (milk equiv., total solids basis)	47,839	47,362	477	1.0%

U.S. Dairy Trade *from page 1*

industry on track to set a calendar-year record in 2021 by this measure. Most of the major categories of product exports except American-type cheese registered positive annual growth rates during the second quarter of 2021.

Imports of the major U.S. dairy import categories, cheese, concentrated milk proteins and butter, presented a somewhat mixed picture during the second quarter, with imports lower for butter, again higher for cheese and milk protein concentrate, and stable for casein and for total imports as a percent of U.S. milk solids production.

Milk Production

U.S. milk production continued to drop from May to June, measured in terms of daily average production as well as lower year-over-year increases against both 2020 and 2019. June production was 2.9 percent higher than June 2020

production, down from 4.7 percent over 2020 in May. More informatively, May and June production were 4.2 percent and 4.0 percent higher, respectively, over 2019 production. Total milk solids production grew by 4.3 percent from a year earlier, compared with 3.7 percent growth in liquid milk production, during the second quarter.

Dairy Products

The wide gap between growth of American cheese and Italian-type cheese production growth continued during the second quarter, particularly for cheddar compared to mozzarella. Still-excessive milk production continues to be channeled disproportionately into American-type cheese production, driven by additional capacity that has recently come on line. Despite the current large volumes of dry skim milk exports, production of skim milk powder, generally produced for export, has dropped while nonfat dry milk production has grown.

U.S. Dairy Exports	Apr–Jun 2021	Apr–Jun 2020	2020–2021 Change	Percent Change
	(metric tons)			
Butter	13,032	4,807	8,226	171%
Anhydrous Milk Fat / Butteroil	2,067	1,418	649	46%
Cheddar Cheese	11,914	13,547	-1,633	-12%
American-type Cheese	11,966	13,588	-1,622	-12%
All Other Cheese	92,744	87,180	5,564	6%
Total Cheese	104,710	100,768	3,942	4%
Dry Skim Milk	248,659	222,931	25,729	12%
Whole Milk Powder	11,131	10,988	143	1%
Dry Whey	59,981	51,418	8,563	17%
Whey Protein Concentrate/Isolate	49,790	49,081	710	1%
Lactose	110,543	102,512	8,031	8%
Percent of U.S. Milk Solids Exported	18.6%	17.0%	1.6%	9%

U.S. Dairy Imports	Apr–Jun 2021	Apr–Jun 2020	2020–2021 Change	Percent Change
	(metric tons)			
Butter	12,620	14,035	-1,415	-10%
Cheese	46,240	33,415	12,824	38%
Dry Skim Milk	108	367	-259	-71%
MPC (all protein levels)	14,208	12,372	1,837	15%
Casein	17,338	16,858	481	3%
Percent of U.S. Milk Solids Imported	3.3%	3.4%	-0.1%	-4%

Dairy Product Inventories

Based on the metric of days of total use in stock, inventories of both types of cheese, as well as dry whey and lactose, remain within acceptable limits as of June 2021, while butter, dry skim milk and whey protein concentrate stocks are continuing to move above normal trend levels.

Dairy Product and Federal Order Class Prices

July Class III prices were closer to Class IV prices than in June and were also below Class II prices and well below Class I. As a result, July producer price differentials in the

component pricing federal orders were again positive, rising from June. July NDPSR prices for barrel cheese were just about 3 cents a pound below the block price. As a result, the July adjusted, weighted-average federal order price for cheddar cheese was almost the same as the block price itself.

Fluid milk continues to be the only dairy product currently contributing to food price inflation. The July consumer price index for fluid milk was 6.2 percent higher than a year earlier, while the overall cost of living index was up by 5.3 percent again in July. However, the CPI for all dairy products rose by only 1.8 percent in July, and the overall CPI for food and beverages was 3.4 percent higher.

Milk and Dairy Products Production	Apr–Jun 2021	Apr–Jun 2020	2020–2021 Change	Percent Change
Milk Production				
Cows (1,000 head)	9,505	9,364	141	1.5%
Per Cow (pounds)	6,117	5,988	129	2.2%
Total Milk (million pounds)	58,140	56,070	2,070	3.7%
Total Milk Solids (million pounds)	7,485	7,173	312	4.3%
Dairy Products Production		(million pounds)		
Cheese				
American Types	1,405	1,319	85	6.5%
Cheddar	1,008	949	59	6.2%
Italian Types	1,436	1,416	21	1.5%
Mozzarella	1,124	1,122	2	0.2%
Total Cheese	3,418	3,275	143	4.4%
Butter	529	549	-19	-3.5%
Dry Milk Products				
Nonfat Dry Milk	584	514	70	13.7%
Skim Milk Powder	115	169	-53	-31.7%
Dry Whey	233	242	-9	-3.6%
Whey Protein Concentrate	122	117	5	4.5%

Dairy Product Inventories	Jun 2021	May 2021	Jun 2020	2020–2021 Change
		(million pounds)		
Butter	414	412	362	14%
American Cheese	809	828	793	2%
Other Cheese	626	630	623	0%
Dry Skim Milk	359	358	291	24%
Dry Whey	63	66	86	-26%

Milk and Feed Prices

The June margin under the Dairy Margin Coverage program dropped 65 cents from May's margin to \$6.24/cwt, which will generate a June payment of \$3.26/cwt for \$9.50/cwt coverage. The DMC feed cost calculation for June was lower by \$0.16/cwt of milk from May, mostly on lower soybean meal prices, but the June U.S. average all-milk price took a larger than expected drop of \$0.80/cwt from May, setting it back to where it was in April. The blended alfalfa hay price increased in June for the ninth straight month.

Looking Ahead

The current futures-based price outlook continues to indicate that the DMC margin will not rise much above \$7.00/cwt through the summer and will remain below \$9.50/cwt through the end of 2021. However, the recent reversal of the futures markets' declining estimate of calendar year 2021 average milk prices can be expected to boost the DMC outlook for the second half of 2021 if it continues.

Interestingly, USDA's monthly WASDE estimates of 2021 average milk prices have averaged almost \$0.60/cwt below

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Dairy Product and Federal Order Prices	Jul 2021	Jun 2021	Jul 2020	2020–2021 Change
NDPSR Dairy Product Prices				
		(per pound)		
Butter	\$1.740	\$1.793	\$1.789	-\$0.049
Cheddar Cheese	\$1.596	\$1.644	\$2.587	-\$0.992
40-Pound Blocks	\$1.595	\$1.606	\$2.698	-\$1.103
500-Pound Barrels	\$1.566	\$1.651	\$2.437	-\$0.871
Nonfat Dry Milk	\$1.255	\$1.270	\$0.972	\$0.284
Dry Whey	\$0.605	\$0.644	\$0.344	\$0.261
Federal Order Class Prices for Milk				
		(per hundredweight)		
Class I Mover	\$17.42	\$18.29	\$16.56	\$0.86
Class II	\$16.83	\$16.66	\$13.79	\$3.04
Class III	\$16.49	\$17.21	\$24.54	-\$8.05
Class IV	\$16.00	\$16.35	\$13.76	\$2.24
Retail Dairy Product Prices				
Fluid Whole Milk (per gallon)	\$3.627	\$3.557	\$3.255	\$0.372
Lowfat Fluid Milk (per gallon)	\$3.168	\$3.165	\$2.826	\$0.342
Cheddar Cheese (per pound)	\$5.392	\$5.386	\$5.517	-\$0.125
Butter (per pound)	\$3.599	\$3.585	\$3.572	\$0.027

Milk and Feed Prices	Jun 2021	May 2021	Jun 2020	2020–2021 Change
Producer Prices				
All Milk (per cwt.)	\$18.40	\$19.20	\$18.10	\$0.30
Feed Prices				
Corn (per bushel)	\$6.00	\$5.91	\$3.16	\$2.84
Soybean Meal (per ton)	\$378	\$421	\$289	\$90
Alfalfa Hay (per ton)	\$215	\$210	\$190	\$25
DMC Feed Cost (per cwt.)	\$12.16	\$12.31	\$8.11	\$4.04
DMC Margin (per cwt.)	\$6.24	\$6.89	\$9.99	-\$3.74

Looking Ahead *from page 4*

the contemporary futures-based estimates since March this year. By contrast, in 2020 the USDA / WASDE estimates of 2020 average milk prices tracked closely with both the futures and, until they were discontinued, with the USDA DMC Decision Tool estimates. The exception was the second

quarter, when the WASDE estimates attempted to capture, but overestimated, the impact of dumped milk in the pandemic's early months. The current futures outlook for federal order class prices does not present a clear picture of whether the third quarter string of positive producer price differentials in the component pricing orders will continue during the fourth quarter.

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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.