

DIXIE DAIRY REPORT
January 2022

2021 ends and 2022 starts with dairy product prices moving higher. During the past few weeks all dairy product prices, especially butter, have moved upward. For the most recent week, the CME butter price averaged \$2.6670/lb., the highest weekly butter price since the summer of 2017. A month ago, the weekly average was \$1.9850/lb., and a year ago, butter was trading around \$1.50/lb. My best explanation for the price increase is low butter production and inventory, more on this below. Turning to cheese, CME block cheddar ended the week averaging \$2.0210/lb., up from \$1.8485 just a month ago. During the same time period barrel cheddar advanced about \$0.20/lb. to \$1.8245/lb. Shifting to powder, the December DPSR nonfat dry milk powder (NDM) price was \$1.5471/lb., the highest price since 2014. December dry whey was almost \$0.65/lb., about a quarter higher than last December.

Higher dairy product prices resulted in a January Class I Mover at \$19.71/cwt., the highest January Mover since 2014, and over \$4.50/cwt. higher than last January. 2021 ended with the December Class IV price at \$19.88/cwt. Last January Class IV was only \$13.75/cwt. This is over a \$6.00/cwt. increase in 12 months, and the largest Class IV price increase in a calendar year. December saw Class III at \$18.36/cwt. Opposite of Class IV, the 2021 Class III average is \$1.08/cwt. lower than 2020. Higher dry whey prices kept the Class III price from declining further. Looking ahead, current 2022 monthly Class III futures prices average \$20.35/cwt. and the Class IV average is \$21.61/cwt. Both prices are well above 2021 actual averages.

ANNUAL AVERAGE ACTUAL CLASS and DAIRY PRODUCT PRICES* (2019-2021)

Class Price or Dairy Product**	2019	2020	2021	2021 vs. 2020
Class I Mover	\$16.99	\$16.91	\$16.83	(\$0.08)
Class II	\$16.81	\$14.29	\$16.44	\$2.15
Class III	\$16.96	\$18.16	\$17.08	(\$1.08)
Class IV	\$16.30	\$13.49	\$16.10	\$2.61
Butter	\$2.2431	\$1.5808	\$1.7325	\$0.1517
Nonfat Dry Milk Powder	\$1.0419	\$1.0417	\$1.2693	\$0.2276
Dry Whey	\$0.3799	\$0.3621	\$0.5744	\$0.2123
Cheese – Barrel	\$1.7038	\$1.7745	\$1.5956	(\$0.1789)
Cheese - Block	\$1.7826	\$2.0442	\$1.7309	(\$0.3133)
Cheese – Average Block + Barrel	\$1.7586	\$1.9236	\$1.6755	(\$0.2481)

*Dairy Product Prices used to calculate federal order prices

** Class prices (\$/cwt. @ 3.5% fat) and dairy product prices (\$/lb.)

I did not anticipate dairy product prices increasing to current levels. A combination of lower supply, both milk and products, along with strong demand proved me wrong. Let me explain further:

1. **Declining milk supply.** In the dairy industry a small change in milk supply, makes a much larger change in price which is happening now. Milk production is declining in the U.S., and in Oceania and European Union (EU), the world's other two major dairy exporters. USDA reports November milk production 0.4% below last November, a relatively large monthly decline. The milk production drop is due to fewer cows, and a below average increase in milk per cow. Since the peak in May, dairy cow numbers have dropped 122,000 head, a historical large decline in a short period of time. Low or negative margins forced a large exit of dairy farmers. Higher feed, labor, and other production costs, plus tight forage supplies in some areas, are lowering milk production per cow. In Oceania and the European Union, USDA projects milk production in 2021 to be flat or only slightly higher than the previous year, with little improvement in 2022.

2. Low butter and NDM inventories and production. At the end of November, the butter inventory was 15.9% below last November. Inventory of NDM was 21.4% lower, and the lowest November inventory since 2017. On the production side, volume of butter produced has been below a year ago since July, with November production down a hefty 9.6%. Strong cream demand in products other than butter, has meant less cream churned into butter, and through October, butter disappearance is up 4.4%. Similar to butter, NDM production has been below a year ago since July. October and November production was 12.8% and 15.0%, lower than a year ago, respectively. Plus, less NDM production means less cream available for butter. Lower production and inventories, support higher prices.
3. Good domestic demand, and strong export demand. Through October, combined domestic and export dairy demand (total solids basis) is 2.8% above a year ago. 2021 will end with demand increasing more than milk supply. Separately, domestic demand is up a respectable 1.3%, but export demand is up a hefty 10.8%. Through October, skim/ nonfat milk powder (SMP) exports are 10% higher than the same period in 2020. The SMP supply outside of the U.S., especially in the EU is tight, which has lifted prices and increased more export opportunities for the U.S. The U.S. is expected to pass the EU as the world's number one SMP exporter in 2021. Even though it is only about 4.5% of total production, butter exports are up 122%. Tight global supply, plus competitive prices are making 2021 a record year for U.S. exports, responsible for 17% of total dairy demand.

The bottom line, a lower supply of milk and dairy products, especially butter and NDM, and strong demand is strengthening prices. Again, a small change in supply or demand, makes a larger change in dairy product prices.

2022 federal order blend prices. Projecting milk prices becomes more difficult when the speed and magnitude of dairy product price changes increase. Compared to last month, my 2022 blend price projections are about \$1.00/cwt. higher. However, I continue to be a conservative projector. Currently, I project 2022 blend prices, in the three Southeastern orders, averaging about \$3.00 - \$3.50/cwt. higher than 2021. My list of primary factors moving milk prices, higher or lower, in the coming year include: 1) The impact of both inflation and higher dairy product prices on domestic demand. Consumer purchasing power is expected to be lower in 2022. 2) Will exports continue at the current pace, especially to China? With over 17% of the nation's milk production exported, volume of dairy exports has a significant impact on milk price. 3) Milk production. Will high production costs, labor challenges, supply issues, improving cull cow prices, and the use of beef semen on dairy cows continue to lower the nation's dairy herd, or will higher milk prices stabilize cow numbers or lead to herd expansion? 4) Plant based dairy alternatives increasing market share in the dairy case. 5) On-going impact of coronavirus. 6) As history as shown, there is the potential for unexpected surprises that can sharply and quickly move milk prices up or down.

PROJECTED* BLEND PRICES SOUTHEASTERN FEDERAL ORDERS

Month	Appalachian	Florida	Southeast
	(\$/cwt. at 3.5% butterfat – base zone)		
October 2021	\$19.70	\$21.55	\$19.86
November	\$21.13	\$22.93	\$21.22
December	\$22.14	\$23.88	\$22.12
January 2022	\$23.36	\$25.00	\$23.35
February	\$24.06	\$25.99	\$24.02
March	\$23.78	\$25.92	\$23.53

*Projections in bold

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Class I Mover \$ Per Cwt. (3.5% fat)													
	J	F	M	A	M	J	J	A	S	O	N	D	Avg.
2020	\$19.01	\$17.55	\$17.46	\$16.64	\$12.95	\$11.42	\$16.56	\$19.78	\$18.44	\$15.20	\$18.04	\$19.87	\$16.91
2021	\$15.14	\$15.54	\$15.20	\$15.51	\$17.10	\$18.29	\$17.42	\$16.90	\$16.59	\$17.08	\$17.98	\$19.17	\$16.83
2022	\$19.71	\$21.51	\$21.41	\$21.05	\$20.59	\$20.24	\$20.08	\$19.81	\$19.72	\$19.62	\$19.60	\$19.47	\$20.23
Southeastern Federal Orders' Blend Prices - Base Zone at 3.5% butterfat (\$/cwt.)													
Florida - Tampa													
2020	\$23.33	\$21.69	\$21.64	\$19.35	\$17.29	\$16.83	\$20.80	\$22.69	\$21.85	\$19.65	\$21.70	\$23.18	\$20.83
2021	\$19.26	\$19.54	\$20.11	\$20.21	\$21.26	\$22.40	\$21.98	\$21.11	\$21.22	\$21.55	\$22.93	\$23.88	\$21.29
2022	\$25.00	\$25.99	\$25.92	\$25.41	\$24.90	\$24.70	\$24.97	\$24.38	\$24.43	\$24.27	\$24.05	\$23.79	\$24.82
Southeast - Atlanta													
2020	\$21.32	\$20.00	\$19.64	\$17.75	\$15.39	\$15.38	\$18.89	\$20.18	\$19.62	\$17.86	\$19.66	\$20.99	\$18.89
2021	\$17.59	\$17.72	\$17.92	\$18.46	\$19.52	\$20.39	\$19.80	\$19.60	\$19.70	\$19.86	\$21.22	\$22.12	\$19.49
2022	\$23.35	\$24.02	\$23.53	\$23.25	\$22.91	\$22.51	\$22.82	\$22.45	\$22.84	\$22.61	\$22.40	\$22.05	\$22.90
Appalachian - Charlotte													
2020	\$21.03	\$19.63	\$19.49	\$17.49	\$15.14	\$15.27	\$19.34	\$20.25	\$19.68	\$17.82	\$19.72	\$20.61	\$18.79
2021	\$17.42	\$17.56	\$17.94	\$18.43	\$19.35	\$20.19	\$19.61	\$19.24	\$19.37	\$19.70	\$21.13	\$22.14	\$19.34
2022	\$23.36	\$24.06	\$23.78	\$23.50	\$22.98	\$22.63	\$22.71	\$22.59	\$22.38	\$22.40	\$22.15	\$21.87	\$22.87
* Projections in bold													

Southeastern Federal Orders Class I Producer Milk - Million lbs.													
Florida	J	F	M	A	M	J	J	A	S	O	N	D	YTD
2019	199.3	174.3	184.9	182.7	176.7	155.3	164.1	184.4	163.4	180.8	148.2	176.8	1,914.1
2020	192.6	175.4	191.0	167.9	162.9	160.3	160.2	160.7	158.9	180.4	176.0	174.9	1,886.4
2021	175.8	161.1	173.6	170.8	162.9	149.4	159.2	167.2	164.2	170.2	176.1		1,830.6
% change	-8.7%	-8.2%	-9.1%	1.7%	0.0%	-6.8%	-0.6%	4.0%	3.4%	-5.6%	0.1%		-3.0%
Southeast													
2019	333.7	274.9	289.9	298.5	287.8	252.4	280.1	298.3	278.5	299.3	260.0	285.0	3,153.4
2020	299.4	259.6	306.6	268.5	257.1	256.0	269.2	250.5	264.5	272.1	258.6	280.1	2,962.1
2021	268.9	253.4	271.8	265.6	245.7	234.5	236.9	259.4	261.1	261.3	268.1		2,826.8
% change	-10.2%	-2.4%	-11.3%	-1.1%	-4.4%	-8.4%	-12.0%	3.6%	-1.3%	-4.0%	3.7%		-4.6%
Appalachian													
2019	370.1	293.2	310.2	310.9	306.8	263.2	290.9	339.3	321.2	333.5	285.0	321.9	3,424.3
2020	344.9	301.4	349.0	317.7	317.8	322.8	319.1	318.1	324.6	336.6	332.5	347.0	3,584.6
2021	325.8	306.8	332.8	319.9	296.4	281.8	287.9	313.2	308.7	314.6	326.8		3,414.8
% change	-5.6%	1.8%	-4.7%	0.7%	-6.7%	-12.7%	-9.8%	-1.5%	-4.9%	-6.5%	-1.7%		-4.7%
Total all Three Orders													
2019	903.1	742.4	785.0	792.1	771.3	670.9	735.1	822.0	763.1	813.6	693.2	783.6	8,491.8
2020	836.9	736.4	846.6	754.1	737.8	739.2	748.6	729.3	748.0	789.1	767.0	802.0	8,433.0
2021	770.5	721.3	778.2	756.3	705.0	665.8	684.1	739.8	734.0	746.2	771.1		8,072.3
% change	-7.9%	-2.1%	-8.1%	0.3%	-4.4%	-9.9%	-8.6%	1.4%	-1.9%	-5.4%	0.5%		-4.3%

DIXIE DAIRY REPORT - January 2022 page two

Southeastern Federal Orders' Packaged Fluid Milk Sales - Million lbs.													
Florida	J	F	M	A	M	J	J	A	S	O	N	D	YTD
2019	246	219	234	231	222	199	209	228	207	229	225	227	2,224
2020	252	231	256	226	220	208	209	206	208	223	219	224	2,239
2021	222	206	223	216	206	200	207	214	212	220			2,126
% change	-11.9%	-10.8%	-12.9%	-4.4%	-6.4%	-3.8%	-0.8%	3.9%	1.9%	-1.3%			-5.0%
Southeast													
2019	386	325	343	346	334	306	327	366	339	362	352	346	3,434
2020	372	337	386	338	327	313	320	318	318	339	331	344	3,368
2021	335	319	346	326	313	289	297	318	322	323			3,188
% change	-9.9%	-5.3%	-10.3%	-3.6%	-4.3%	-7.7%	-7.3%	0.0%	1.3%	-4.7%			-5.3%
Appalachian													
2019	287	240	268	261	265	232	250	267	256	273	271	271	2,599
2020	280	252	299	272	274	268	278	283	279	286	283	291	2,771
2021	292	267	289	272	267	252	258	270	268	273			2,708
% change	4.3%	6.1%	-3.3%	0.1%	-2.6%	-5.8%	-7.3%	-4.6%	-3.9%	-4.5%			-2.2%
Total all Three Orders													
2019	919	784	845	838	821	737	786	861	802	864	848	844	8,257
2020	904	820	941	836	821	789	807	807	805	848	833	859	8,378
2021	849	792	859	814	786	741	762	802	802	816			8,022
% change	-6.1%	-3.4%	-8.8%	-2.6%	-4.3%	-6.0%	-5.6%	-0.6%	-0.4%	-3.8%			-4.2%

U.S. Estimated Fluid Milk Sales - million lbs.													
2019	4,210	3,650	3,917	3,866	3,911	3,446	3,620	3,889	3,756	4,042	4,008	3,953	38,307
2020	4,071	3,704	4,242	3,864	3,803	3,631	3,709	3,663	3,716	3,969	3,832	4,013	38,372
2021	3,872	3,584	3,925	3,718	3,637	3,390	3,474	3,601	3,669	3,762			36,632
% change	-4.9%	-3.2%	-7.5%	-3.8%	-4.4%	-6.6%	-6.3%	-1.7%	-1.3%	-5.2%			-4.5%

Southeast Federal Orders' Class I Utilization %													
Florida	J	F	M	A	M	J	J	A	S	O	N	D	Avg.
2019	86%	84%	82%	85%	86%	82%	83%	86%	80%	83%	82%	80%	83%
2020	86%	82%	82%	78%	82%	84%	83%	82%	81%	84%	82%	81%	82%
2021	79%	82%	84%	81%	79%	81%	86%	81%	83%	83%	85%		82%
Southeast													
2019	76%	70%	65%	67%	66%	57%	70%	74%	73%	78%	77%	73%	69%
2020	71%	73%	66%	69%	68%	70%	69%	68%	67%	71%	69%	68%	69%
2021	68%	71%	62%	63%	64%	65%	68%	72%	71%	68%	71%		67%
Appalachian													
2019	76%	72%	65%	66%	67%	63%	71%	73%	73%	75%	74%	70%	69%
2020	74%	70%	70%	71%	69%	83%	85%	71%	72%	81%	76%	68%	74%
2021	71%	72%	68%	69%	67%	66%	69%	72%	74%	73%	77%		71%

DIXIE DAIRY REPORT - January 2022 page three

U.S. Milk Production - Million lbs.													
	J	F	M	A	M	J	J	A	S	O	N	D	YTD Total
2019	18,612	16,966	18,845	18,433	19,058	18,225	18,375	18,267	17,595	18,135	17,506	18,365	200,017
2020	18,877	17,895	19,402	18,684	18,972	18,414	18,756	18,632	18,031	18,603	18,103	18,851	204,369
2021	19,328	17,667	19,780	19,340	19,855	18,954	19,122	18,739	18,038	18,625	18,035	18,835	207,483
% change	2.4%	-1.3%	1.9%	3.5%	4.7%	2.9%	2.0%	0.6%	0.0%	0.1%	-0.4%		1.5%

U.S. Dairy Cows - 1,000 head													
2019	9,354	9,352	9,333	9,332	9,333	9,327	9,315	9,318	9,333	9,347	9,345	9,343	
2020	9,365	9,377	9,391	9,377	9,360	9,355	9,372	9,374	9,395	9,414	9,432	9,442	
2021	9,447	9,460	9,474	9,500	9,507	9,503	9,500	9,447	9,414	9,395	9,385		
Change	82	83	83	123	147	148	128	73	19	-19	-47		

Florida Milk Production - Million lbs.													
2019	210	197	218	207	213	199	192	181	164	179	184	202	YTD Total
2020	215	205	219	208	200	186	183	174	162	171	174	192	2,144
2021	199	183	205	199	195	186	175	163	155	163	168	192	2,097
Change %	-7.4%	-10.7%	-6.4%	-4.3%	-2.5%	0.0%	-4.4%	-6.3%	-4.3%	-4.7%	-3.4%		-5.1%

Georgia Milk Production - Million lbs.													
2019	159	148	165	157	155	145	143	135	131	139	142	152	YTD Total
2020	161	152	163	154	152	143	142	136	132	141	142	151	1,619
2021	157	143	163	157	155	150	146	142	137	146	144	151	1,618
Change %	-2.5%	-5.9%	0.0%	1.9%	2.0%	4.9%	2.8%	4.4%	3.8%	3.5%	1.4%		1.4%

Virginia Milk Production - Million lbs.													
2019	132	121	134	131	133	122	119	118	115	120	119	126	YTD Total
2020	134	127	137	132	133	126	123	121	117	123	121	128	1,364
2021	130	118	133	129	130	121	120	117	114	119	117	128	1,394
Change %	-3.0%	-7.1%	-2.9%	-2.3%	-2.3%	-4.0%	-2.4%	-3.3%	-2.6%	-3.3%	-3.3%		-3.3%

Total above Three States* Milk Production - Million lbs.													
2019	501	466	517	495	501	466	454	434	410	438	445	480	YTD Total
2020	510	484	519	494	485	455	448	431	411	435	437	471	5,127
2021	486	444	501	485	480	457	441	422	406	428	429	471	5,109
Change %	-4.7%	-8.3%	-3.5%	-1.8%	-1.0%	0.4%	-1.6%	-2.1%	-1.2%	-1.6%	-1.8%		-2.5%

* Florida, Georgia, and Virginia account for about two-thirds of the Southeastern States Milk Production. These are the only three Southeast states for which USDA reports monthly milk production.