CDE DAIRY MARKETS & MANAGEMENT UPDATE

All prices — **MAR. 16, 2021** — except where noted

ZACH MYERS
Risk Education Manager
336-468-0726
zmyers@centerfordairyexcellence.org

2020 Milk Production and Dairy Farm Numbers: We can certainly agree 2020 did not turn out the way it was predicted at the beginning of last year. No one would have guessed that a year later we would still be dealing with a worldwide pandemic. The 2020 U.S. all-milk price averaged $18.32 per cwt, Class III averaged $18.16, and Class IV averaged $13.49. However, Dairy Margin Coverage provided some relief to those who had enrolled, and the Coronavirus Food Assistance Program (CFAP) provided two significant payments last year that helped many dairy farmers when it was needed the most.

Total U.S. milk production in 2020 was 223.22 billion pounds, up 2.2% from 2019. At 9.338 million head, the national dairy herd was similar to 2019 with only 1,000 more cows in 2020. With little growth in the national herd size, nearly all the production growth can be attributed to increased milk production per cow. Production per cow in 2020 was 24,008 pounds, 617 pounds per cow more on average than 2019.

After declining in 2019, Pennsylvania's milk output grew 1.7% last year to 10.276 billion pounds, barely edging out Minnesota with 10.149 billion pounds, remaining the 7th highest production state in the country. The Commonwealth's dairy herd continued a multiple-year decline to average 482,000 head, a reduction of 8,000 head (-1.6%) compared to 2019. The increase in milk production was driven solely by increased milk production per cow. The average Pennsylvania milk cow produced 21,320 pounds in 2020, a 691-pound improvement compared to 2019's 20,629 or 2.3 pounds more milk per day based on a 305-day lactation. Despite the growth in per-cow milk production, Pennsylvania ranks 20th of the top 24 dairy states in production per cow.

California continues to lead the nation in total milk production with 40.6 billion pounds, followed by Wisconsin's 30.6 billion pounds, and Idaho a distant number three with 15.6 billion pounds. New York and Texas round out the top five, respectively. Number six Michigan, with 11.4 billion pounds, leads the nation in average production per cow with a 27,170 pounds per cow, or about 89.1 pounds per day. Michigan produces more milk with less cows (430,000) than both Pennsylvania and Minnesota (447,000).

The trend of consolidation continued through 2020. The U.S. lost 7.5% of its dairies to finish the year with 31,657 dairies. A slight increase in cow numbers with a net loss of 2,550 dairies led to consolidation across most of the U.S. The national herd size grew 8% in 2020 to 295 cows per dairy. For the third year in a row, Wisconsin lost the highest number of dairies. Wisconsin lost 610 dairies, which was equivalent to a reduction of 7.9%, but the average herd size increased 7.8% to 177 cows per dairy. Of the top 24 dairy states, Minnesota lost the largest percentage of dairy farms with a 14% drop (380) through 2020, ending the year with 2,350 dairies. However, Minnesota's herd size grew 3.8% to 190. Pennsylvania did not lose as large of a percentage as the national average but still had a net loss of 5.2% or 300 dairies. Slight consolidation occurred in the Keystone state with the average herd size increasing from 86 cows per dairy in 2019 to 89 in 2020. Only 11 states were able to maintain dairy numbers (three in the top 24). No state in the union had a net gain in dairy farms. With production still growing to start 2021 and milk prices currently forecasted lower on average than 2020, it will be interesting to see how this data changes a year from now.

Dairy Farm Losses, Top 10 Dairy States

State	2019	2018	% Change	Avg Herd Size
CA	1,255	1,215	-3%	1,416
WI	7,720	7,110	-8%	177
ID	460	440	-4%	1,466
NY	3,890	3,650	-6%	172
TX	380	360	-5%	1,653
MI	1,330	1,200	-10%	358
PA	5,730	5,430	-5%	89
MN	2,730	2,350	-14%	190
NM	140	140	0%	2,357
WA	370	340	-8%	824
U.S.	34,207	31,657	-7%	295

Prices change daily. This market information is an example for educational purposes. The market data below are compiled weekly by Farmshine, via CME & USDA reports

CME DAILY FUTURES & OPTIONS TRADING — MAR. 16, 2021 AT THE CLOSE

*AVG = Average basis for North-East and Mid-East

*MARGIN = Milk Price over Feed Cost per cwt. YELLOW = payment triggered

CLASS III MILK FUTURES ($/CWT) vs. week ago: *1Mar-July 5-30 cents lower, Aug-Feb steady-15 cents higher.* **12-Month Avg. 17.89↑↑**

CLASS IV MILK FUTURES ($/CWT) vs. week ago: *Mar. 8 cents higher, rest of board steady-20 cents lower.* **12-Month Avg. 16.15↓↓**

	MAR-21	APR-21	MAY-21	JUN-21	JUL-21	AUG-21	SEP-21	OCT-21	NOV-21	DEC-21	JAN-22	FEB-22	TREND
CLASS III	16.35	17.42	18.05	18.15	18.22	18.33	18.36	18.42	18.30	18.00	17.55	17.50	MIXED
CLASS IV	14.36	15.07	15.45	15.80	16.11	16.45	16.69	16.80	16.90	16.87	16.56	16.70	↓↓
HIGH	18.92 01/21	18.22 01/21	18.40 03/21	18.30 03/21	18.30 03/21	18.33 03/21	18.38 03/21	18.42 03/21	18.30 03/21	18.00 03/21	17.55 03/21	17.50 03/21	
LOW	14.62 03/20	14.56 03/20	14.52 03/20	14.31 03/20	14.50 03/20	14.50 03/20	14.50 03/20	14.21 03/20	14.19 03/20	14.50 03/20	14.25 03/20	14.70 03/20	

HIGHEST & LOWEST DAILY SETTLE PRICE FOR CL. III OVER LIFE OF CONTRACT & MONTH / YEAR IT OCCURRED

MILK BASIS ($/CWT) — PA BASIS & 2014-16 AVG OF PA/NY/VT/OH — *YOUR INDIVIDUAL BASIS WILL VARY (MAILBOX - CLASS 3)*

PA	1.58	1.19	1.60	1.28	1.01	0.85	1.33	1.87	1.70	2.75	2.30	1.81
*AVG	2.02	1.25	2.14	1.80	1.12	0.90	1.32	1.82	1.65	2.72	2.70	2.25

DMC OFFICIAL GROSS MARGINS *per cwt.(USDA All-Milk, corn/alfalfa hay & Illinois soybean prices, feed for all classes of dairy cattle on the farm)*

DMC	NOV-19	DEC-19	JAN-20	FEB-20	MAR-20	APR-20	MAY-20	JUNE-20	JULY-20	AUG-20	SEP-20	OCT-20	NOV-20	DEC-20	*JAN-21	
	12.21	11.95	10.72	10.06	9.15	6.03	5.37	9.99	12.41	10.83	9.40	11.13	11.87	8.78	*7.14	↓↓

U.S. AVG MILK MARGIN *per 100 lbs milk based on 75-lb herd avg & USDA's All-Milk price, USDA-reported corn & alfalfa hay & Ill. soybean prices (lactating feed only)*

PA AVG MILK MARGIN *per 100 lbs milk based on 75-lb herd average and USDA's PA All-Milk price, USDA corn & alfalfa hay & Buff., NY soybean prices (lactating feed only)*

	OCT-19	NOV-19	DEC-19	JAN-20	FEB-20	MAR-20	APR-20	MAY-20	JUN-20	JUL-20	AUG-20	SEP-20	OCT-20	*NOV-20	*DEC-20	*JAN-21	
U.S. AVG	13.98	15.29	14.94	13.86	13.18	12.23	8.77	8.06	12.59	15.04	13.43	12.33	14.44	*15.47	*12.51	*11.08	↓↓
PA AVG	13.09	13.76	13.78	13.10	12.20	11.24	8.27	6.79	9.44	12.67	11.10	10.91	11.31	*12.36	*10.53	*10.06	↓↓

CLASS III MILK ($/CWT) **OPTIONS — PUTS — Daily Strike Price** / Premium

MAR-21	APR-21	MAY-21	JUN-21	JUL-21	AUG-21	SEP-21	OCT-21	NOV-21	DEC-21	JAN-22	FEB-22
16.25 0.02	**17.50** 0.49	**18.00** 0.82	**18.25** 1.00	**18.25** 0.94	**18.25** 0.97	**18.25** 0.91	**18.50** 1.04	**18.25** 1.00	**18.00** 1.09	**17.50** 1.07	**17.50** 1.11

Example Daily Strike Price / Premium

CORN ($/BU) OPTIONS — CALLS

MAY-21	SEP-21	DEC-21	MAR-22
5.10 35.00	**5.50** 26.30	**5.20** 34.60	**5.60** 27.30
6.40 02.10	**6.70** 07.30	**6.90** 07.30	**7.00** 07.70

SOYMEAL ($/TON) OPTIONS — CALLS

MAY-21	JUL-21	OCT-21	DEC-21
380 29.65	**400** 22.65	**380** 25.15	**390** 24.30
435 04.30	**495** 03.05	**500** 04.05	**540** 03.45

CORN FUTURES ($/BU)

	MAY-21	JUL-21	SEP-21	DEC-21	MAR-22	MAY-22	JUL-22	SEP-22	DEC-22	MAR-23	MAY-23	JUL-23	TREND
Current	5.580	5.424	4.970	4.754	4.834	4.880	4.890	4.484	4.354	4.426	4.456	4.496	↓↓
WEEK AGO	5.340	5.242	4.960	4.802	4.874	4.916	4.962	4.530	4.392	4.464	4.500	4.510	

SOYMEAL FUTURES ($/TON)

	MAY-21	JUL-21	AUG-21	SEP-21	OCT-21	DEC-21	JAN-22	MAR-22	MAY-22	JUL-22	AUG-22	SEP-22	TREND
Current	404.9	404.2	396.8	387.3	375.9	373.4	370.0	364.7	363.6	364.3	361.4	355.5	MIXED
WEEK AGO	406.8	405.4	396.6	386.4	375.6	373.6	370.3	364.1	362.3	362.1	358.4	357.2	

PA MILK MARGIN & IOFC–LATEST PSU VALUES – *JAN. 2020

*=NEW
FEED = $/CWT.
IOFC = $/COW

	FEED COST ($/CWT milk)	IOFC ($/COW @ 75 lbs milk)	PA MILK MARGIN ($/CWT milk)
*JAN. (estimated)	*8.15↑↑	*7.55 ↓↓	*10.06 ↓↓
*PREV MO	*8.27	*7.90	*10.53
YR AGO	7.10	9.83	13.10

CME DAIRY CASH-SETTLED FUTURES ($/LB) 03/16/21

	MAR	APR	MAY	JUN	JUL	AUG	SEP	TREND	SPOT CASH 03/16/21	TREND
NFDM	1.118	1.158	1.188	1.215	1.240	1.264	1.280	↓↓	1.1725	↓↓
WHEY	0.548	0.575	0.570	0.567	0.555	0.555	0.547	Mixed	0.5975	↑↑
BUTTER	1.640	1.725	1.765	1.780	1.792	1.820	1.840	Mixed	1.7100	↑↑
CHEESE	1.619	1.710	1.781	1.790	1.805	1.824	1.825	↓↓	See Below	

CME SPOT CHEESE: BARRELS 1.5425 / 40 LB BLOCKS 1.8000 ↑↑ / ↑↑

USDA *NOV-20. NEW *

	ALL-MILK	BF	*MAILBOX
*MN	$24.00	4.28	$23.15
*WI	$22.70	4.06	$22.13
*IA	$23.30	4.21	$21.20
*MO	N/A	N/A	$20.52
*N.ENG	$20.50	4.08	$19.68
*WA/OR	$22.85	4.27	$19.68
*FL	$22.20	3.74	$19.63
*TX	$21.00	4.33	$19.45
*SE	$21.00	3.75	$19.32
*APP	$21.10	3.96	$19.17
*U.S.	$21.30	4.09	$19.15
*CA	$23.00	4.01	$18.83
*PAeast	$20.20	4.05	$18.79
*IN	$19.40	4.07	$18.76
*NY	$20.00	4.05	$18.76
*IL	$20.70	4.07	$18.73
*NE/KS	$19.60	4.12	$18.57
*PAwestern PA only			$18.49
*NM	$19.10	3.92	$18.47
*OH	$20.00	4.02	$18.33
*MI	$18.50	3.98	$17.45

***=NEW ANNOUNCED FEDERAL ORDER PRICES** ($/CWT)

	*CL I ADV↑↑	CL II↓↓	CL III↓↓	CL IV↓↓	ALL-MILK-U.S	ALL-MILK-PA
Current	*15.51 (APR)	14.00 (FEB)	15.75 (FEB)	13.19 (FEB)	17.50 (JAN)↓↓ 4.10F	17.30 (JAN)↓↓ 4.08F
MONTH AGO	15.20	14.18	16.04	13.75	18.50	18.80
YEAR AGO	16.64	16.84	17.00	16.20	19.60	20.20

CURRENT FEDERAL ORDER VALUES ($/LB) * = *NEW

WEIGHTED AVG. 4-WK FEB. 1-27, 2021

PRODUCT	VALUE	MAKE ALLOW	NET	
CHEESE	1.5954	0.2003	1.3951	↓↓
BUTTER	1.3586	0.1715	1.1871	↓↓
NFDM	1.1164	0.1678	0.9486	↓↓
DRYWHEY	0.5060	0.1991	0.3069	↑↑

FEB. 2021 COMPONENTS

PROT	2.9816	↓↓
B.FAT	1.4376	↓↓
N.FAT	0.9391	↓↓
OTHER	0.3161	↑↑

CATTLE - DAIRY PURPOSES($/HD) **NORTHEAST** (Avg. March 10, 2021 sale New Holland, PA)

	COWS: Fresh	Bred	Springing	HEIFERS: Bred	Beef x (bred)	Springing	Open: 300-600 lbs	Beef X	600-900 lbs	900-1000 lbs	BULLS (1100-1300 lb)
Current	975	600	800	900	700	950	475	450	700	N/A	850
MONTH AGO COMPARISON	1075	800	1200	750	N/A	825	350	N/A	400	N/A	990

Avg. of prices reported by USDA Market News for PA Auction Markets Mar. 11-16, 2021

CULL MARKET COWS ($/CWT LIVEWEIGHT

Price averages do not include lower-end 'common'

Average to high dressing

	Premium White	Breakers	Boners	Lean
Current		60.00↓↓	59.10↑↑	45.00↓↓
WEEK AGO	62.15	60.50	57.60	48.50
YEAR AGO	N/A	72.50	67.75	61.85

	CURRENT	Beef X	WEEK AGO	YR AGO	
FED HOLSTEIN STEERS ($/CWT LIVEWEIGHT) Choice & Prime 1250-1550 lbs light test	89.50		88.50	89.00	↑↑
BULL CALVES: No. 1 & 2, 90-130 lbs	100.00	220.00	78.00	110.00	↑↑
70-85 lbs	95.00	225.00	71.00	92.00	↑↑