CDE DAIRY MARKETS & MANAGEMENT UPDATE

All prices — **MAR. 29, 2023** — except where noted

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MARCH: The trend of year-over-year (YOY) increasing national milk production continued during February, while Pennsylvania's YOY trend of decreasing milk production continued. With an improving world milk supply, U.S. prices are similar to European and New Zealand prices with perhaps the biggest determining factor being proximity to international buyers. That being said, January exports, the most current data available, performed really well as powder exports and cheese exports drove strong YOY increases in export volume and value. Over the next few paragraphs, we will take a look at how U.S. statistics are shaping current markets and how PA is playing its part as the 8th largest milk production state.

The herd size in the U.S. increased to 9.417 million in February, up 37,000 (+0.4%) compared to last year. The national herd also increased month-to-month with 12,000 cows more than Jan. 2023. Average milk production per cow also increased by nine pounds compared to last February to 1,877 pounds per cow. With more cows producing more milk than one year ago, total production climbed by 0.8% to 17.675 billion pounds during Feb. 2023. This is 135 million more than Feb. 2022.

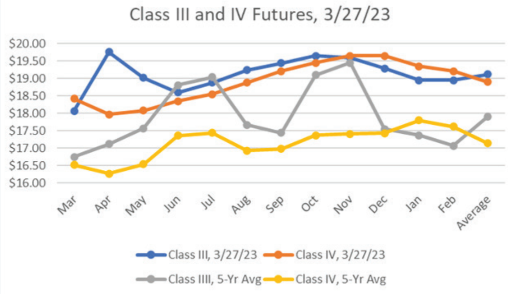
Pennsylvania's herd size decreased YOY by 2,000 cows (-0.4%) to 466,000 in February 2023. However, this is the second month in a row that Pennsylvania was able to maintain its herd size. Milk cow efficiency was improved with a slight four-pound per cow (+0.2%) increase to 1,675 pounds per cow. Pennsylvania's February milk production per cow lags the national average by 202 pounds (10%). The slight increase in milk efficiency was not enough to offset the reduction in cow numbers to keep total production growth positive compared to one year ago. Total milk production across the Keystone State was relatively flat but did drop 1 million pounds (-0.1%) compared to Feb. 2022 to 871 million pounds.

Since November 2021, Class III and IV milk prices have been inversed from the historical "normal" prices. Class IV has been higher than III every month except May 2022. This trend continues through this month, but Class III surpasses Class IV in April and stays higher through October before prices inverse again to basically finish out the year (see the accompanying graph). As of March 27 closing prices, the 12-month average Class III price has improved a slight 18 cents to $19.12 per cwt since the end of Feb. This is $1.21 more than the 5-year average price of $17.91.

The Class IV market has been hit by sluggish domestic and international butter sales that have overwhelmed improved powder exports. This is putting downward pressure on Class IV price resulting in a March 27, 12-month average of $18.90 per cwt, 70 cents less compared to the end of February. Despite the recent Class IV slump, the current average price continues to be higher than the historic 5-year average of $17.14 per cwt by $1.76.

January exports started 2023 off strong, improving by 25,026 (+16%) metric tons (MT) of milk solids equivalents YOY to 181,676 MT. Exports of nonfat dry milk/skim milk powder (NDM/SMP), whey, lactose, and cheese—the top four dairy export categories— all experienced double-digit improvements to drive YOY export growth.

Export value also continued its YOY increase. Jan. U.S. dairy exports were valued at $710.9 million, $121.4 million (+21%) more than January 2022. Export growth this year will be challenged by an overall reduction in international dairy product prices. More competitive European cheese, butter, and skim milk powder prices will be headwinds for the U.S. in terms of continued YOY growth compared to last year. New Zealand is still experiencing milk production issues. However, their prices are similar to U.S. and European prices. This perhaps could make them more competitive from a location standpoint to international buyers such as China where freight costs may be reduced relative to product coming from the U.S. or Europe.



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

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

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

CME DAILY FUTURES & OPTIONS TRADING — MAR. 29, 2023 AT THE CLOSE

	MAR-23	APR-23	MAY-23	JUN-23	JUL-23	AUG-23	SEP-23	OCT-23	NOV-23	DEC-23	JAN-24	FEB-24	TREND
CLASS III MILK FUTURES ($/CWT) vs. week ago: *Steady to $0.15 higher, spots up $0.30, except June down $0.13.* *12-Month Avg. 19.05*↑↑	18.06	19.50	18.50	18.47	18.93	19.32	19.56	19.62	19.58	19.24	18.95	18.90	↑↑
CLASS IV MILK FUTURES ($/CWT) vs. week ago: *Mar-Apr23 steady to firm, May23-Feb24 steady to $0.10 lower.* *12-Month Avg. 18.89*↓↓	18.42	18.06	17.94	18.25	18.55	18.88	19.21	19.45	19.65	19.65	19.35	19.21	↓↓
CLASS III MILK ($/CWT) **OPTIONS — PUTS — Daily Strike Price** / Premium	**18.00** 0.02	**19.50** 0.29	**18.50** 0.63	**18.50** 0.76	**19.00** 0.91	**19.25** 0.93	**19.50** 1.04	**19.50** 1.07	**19.50** 1.19	**19.50** 1.14	**19.25** 1.26	**19.00** 1.19	
MILK BASIS ($/CWT) — **PA BASIS & 2016-19 AVG OF PA/NY/VT/OH** — *YOUR INDIVIDUAL BASIS WILL VARY (MAILBOX - CLASS 3)*													
PA	1.53	2.29	1.82	1.58	0.99	1.03	0.95	0.79	0.60	0.79	1.17	0.62	
*AVG	2.55	2.15	1.66	1.45	1.25	1.31	1.15	0.67	0.74	1.38	0.85	1.67	

DMC OFFICIAL GROSS MARGINS *per cwt(USDA All-Milk, corn, alfalfa & Ill. soybean, feed for ALL CLASSES of dairy cattle on farm) Updated with NEW prem. alfalfa feed cost*

DMC	NOV-21	DEC-21	JAN-22	FEB-22	MAR-22	APR-22	MAY-22	JUN-22	JUL-22	AUG-22	SEP-22	OCT-22	NOV-22	DEC-22	*JAN-23	
	9.14	9.53	11.54	10.98	11.55	12.29	12.51	11.92	9.92	8.08	8.62	10.71	10.89	9.76	*7.94	↓↓

U.S. AVG PREMIUM ALFALFA & ALFALFA/GRASS HAY 20-22% CP *- Source: USDA Monthly National Dairy Comprehensive Report*

U.S. AVG. BRED COWS & HEIFERS (3rd trimester) *per head as reported by USDA Monthly National Dairy Comprehensive Report*

	NOV-21	DEC-21	JAN-22	FEB-22	MAR-22	APR-22	MAY-22	JUN-22	JUL-22	AUG-22	SEP-22	OCT-22	NOV-22	DEC-22	JAN-23	*FEB-23	
Alfalfa hay	262.84	242.90	270.34	253.80	278.02	280.00	322.00	321.17	312.50	308.17	290.70	300.10	289.50	296.50	266.60	*297.25	↑↑
Bred cows & heifers	1062	1152	1151	1237	1253	1390	1278	1184	1350	1407	1265	1310	1290	1300	1250	*1352	↑↑

CORN FUTURES ($/BU)

	MAY-23	JUL-23	SEP-23	DEC-23	MAR-24	MAY-24	JUL-24	SEP-24	DEC-24	MAR-25	MAY-25	JUL-25	TREND
Current	6.504	6.304	5.792	5.704	5.784	5.832	5.842	5.540	5.426	5.492	5.510	5.514	↑↑
WEEK AGO	6.334	6.116	5.660	5.544	5.632	5.684	5.704	5.456	5.360	5.432	5.450	5.456	

SOYMEAL FUTURES ($/TON)

	MAY-23	JUL-23	AUG-23	SEP-23	OCT-23	DEC-23	JAN-24	MAR-24	MAY-24	JUL-24	AUG-24	SEP-24	TREND
Current	458.2	453.8	443.4	430.3	418.9	415.8	410.3	399.7	393.5	391.6	387.8	383.3	↑↑
WEEK AGO	451.6	446.9	435.6	420.8	409.3	406.2	400.7	390.4	384.4	382.5	378.7	374.0	

*=NEW

FEED = $/CWT.

IOFC = $/COW

PA MILK MARGIN & IOFC–LATEST PSU VALUES – *JAN 2023

	FEED COST ($/CWT milk)	IOFC ($/COW @ 75 lbs milk)	PA MILK MARGIN ($/CWT milk)
*JAN (estimated)	*9.61↑↑	*10.71↓↓	*17.93↓↓
PREV MO	9.45	12.04	19.13
YR AGO	8.42	12.28	16.38

Covers ONLY lactating feed, based on 75 lb herd avg, Buff., NY soy price

CME DAIRY CASH-SETTLED FUTURES ($/LB) 03/29/23

	MAR	APR	MAY	JUN	JUL	AUG	SEP	TREND	SPOT CASH 03/29/23
NFDM	1.201	1.179	1.163	1.177	1.203	1.225	1.255	↓↓	1.1475↓↓
WHEY	0.419	0.405	0.375	0.370	0.385	0.380	0.398	↓↓	0.4425↓↓
BUTTER	2.420	2.390	2.392	2.427	2.470	2.480	2.507	↑↑	2.3975↑↑
CHEESE	1.841	2.001	1.916	1.918	1.960	2.000	2.015	↑↑	See Below

CME SPOT CHEESE: BARRELS 1.9050 / 40 LB BLOCKS 1.9350 ↓↓ / ↓↓

**USDA DEC-22 NEW *

	ALL-MILK	BF	*MAILBOX
*MO	N/A	N/A	$25.41
*FL	$28.10	3.78	$25.07
*APP	$27.70	4.12	$25.06
*N.ENG	$25.40	4.18	$25.06
*WA/OR	$27.20	4.56	$24.88
*SE	$27.70	3.97	$24.83
*WI	$23.30	4.23	$24.56
*NY	$24.90	4.17	$24.52
*IL	$24.50	4.27	$24.35
*PAeast	$25.50	4.18	$24.32
*OH	$25.50	4.17	$24.28
*CA	$25.50	4.27	$24.20
*IN	$25.30	4.16	$24.20
*U.S.	$24.70	4.27	$24.00
*MN	$24.80	4.58	$23.97
*PAwestern PA only			$23.91
*IA	$24.00	4.53	$23.13
*TX	$24.40	4.40	$22.86
*MI	$23.40	4.11	$22.83
*NE/KS	$23.20	4.39	$22.41
*NM	$22.20	4.10	$21.11

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

	*CL I ADV↓↓	CL II↓↓	CL III↓↓	CL IV↓↓	ALL-MILK-U.S	ALL-MILK-PA
Current	*18.85(APR)	20.83(FEB)	17.78(FEB)	18.86(FEB)	23.10(JAN)↓↓ 4.23F	23.90(JAN)↓↓ 4.14F
MONTH AGO	18.99	21.61	19.43	20.01	24.70 4.27F	25.50 4.18F
YEAR AGO	24.38	23.79	20.91	24.00	24.20 4.21F	24.80 4.13F

*__CURRENT FEDERAL ORDER VALUES__ ($/LB) * = *NEW

WEIGHTED AVG. 4-WK FEB. 1-25, 2023

PRODUCT	VALUE	MAKE ALLOW	NET	
CHEESE	1.8224	0.2003	1.6221	↓↓
BUTTER	2.4158	0.1715	2.2443	↓↓
NFDM	1.2553	0.1678	1.0875	↓↓
DRYWHEY	0.4031	0.1991	0.2040	↓↓

FEB 2023 COMPONENTS		
PROT	2.3650	↓↓
B.FAT	2.7178	↓↓
N.FAT	1.0766	↓↓
OTHER	0.2101	↓↓

CATTLE - DAIRY PURPOSES($/HD) **NORTHEAST** (Avg. Mar. 22, 2023 sale New Holland, PA)

	COWS: Fresh	Bred	Springing	*HEIFERS: Bred	Springing	Beef x	Open: 300-600 lbs	Beef X	600-900 lbs	Beef X	900-1100 lbs	BULLS (900+ lbs)
Current	1550	1600	1750 LTD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1075 LTD
WEEK AGO COMPARISON	1560	1300	1450	1375	1510	1125 LTD	650	N/A	950	N/A	950	N/A

Avg. of prices reported by USDA Maket News for PA Auction Markets March 23-28, 2023

CULL MARKET COWS ($/CWT LIVEWEIGHT

Price averages do not include lower-end 'common'

Average to high dressing

	Premium White	Breakers	Boners	Lean
Current		93.85↑↑	84.50↓↓	78.50↑↑
WEEK AGO	N/A	93.75	85.75	73.50
YEAR AGO	N/A	89.75	84.50	73.75

FED HOLSTEIN STEERS ($/CWT LIVEWEIGHT)	CURRENT	Beef X	WEEK AGO		YR AGO	
Choice & Prime 1250-1550 lbs light test	137.00 LTD		130.00		118.00	↑↑
BULL CALVES: No. 1 & 2, 90-130 lbs	275.00	450.00	200.00	350	117.00	↑↑
70-85 lbs	285.00	460.00	185.00	430	92.00	↑↑

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