CDE DAIRY MARKETS & MANAGEMENT UPDAT

NOVEMBER: Residual effects of high feed cost extremes continue to impact milk production across the nation. Year-over-year (YOY) milk production growth has been slowing since its peak in April 2021. Growth fell below 1% in August and was basically flat in September. For the first time since May 2020, October YOY milk production shrank due to decreased cow numbers and reduced milk production per cow. Milk production in the three largest European milk producing countries, Germany, France, and the United Kingdom, have had multiple months of declining YOY milk production. Milk production in Oceania is not on par with previous years either. All these factors point to a tightening in the world milk supply that is helping to bolster domestic prices.

October milk production in the U.S. fell 0.5% to 18.515 billion pounds, 88 mil. pounds less than Oct. 2020. The drop in production is because of a 14,000 head decrease in cow numbers and 6-pound drop per month in milk production per cow to 1,970 pounds. The average U.S. cow produced 73.0 pounds per day in October, 3/10ths of a pound less than last year. This is not a large drop in milk production per cow, but coupled with decreased cow numbers, it amplified the milk production decline. High feed costs are receiving most of the blame for both the production and cow number declines. The reduction in cow numbers is the first YOY reduction since May 2020. However, the U.S. herd has been constricting month-over-month since its high of 9.507 million cows in May, declining by 107,000 head since then.

October cow numbers in Pennsylvania remained at 475,000 for the 10th month in a row but is 7,000 (-1.5%) head less than last October. Unfortunately, milk production per cow also fell compared to last Oct. by 30 pounds per month (-1,7%) to 1,760 pounds. The average Keystone cow produced 64.2 pounds per day this past October, 1.0 pounds less than last year. The declines in Oct. cow numbers and output per cow resulted in a reduction in total milk output across the state of 26 mil. pounds (-3.1%) to 822 mil. pounds compared to Oct. 2020.

The result of declining milk production in the U.S. and other main dairy Prices change daily. This market information is an example for educational purposthe market data below are compiled weekly by Farmshine via CMF & USA countries is increasing milk prices here and abroad. As of Nov. 19, the average 12-month Class III milk price improved \$0.37/cwt since the end of Oct.





to \$18.95. The average 12-month Class IV milk price took a larger jump of \$1.14 per cwt to \$19.40. Since the end of October, Class III and IV milk prices have inversed for the foreseeable future with Class IV higher than Class III in Nov. 2021 through at least Oct. 2022. U.S. dairy product prices for butter, nonfat dry milk, and cheese are currently cheaper or comparable to EU and Oceania product prices. Barring a worsening of shipping delays at western U.S. ports, this should help keep U.S. dairy

exports favorable. U.S. dairy exports through Sept. continued at a record pace with an additional 186,020 (+16% YOY) metric tons (MT) of milk solid equiv. of dairy products leaving the U.S. for foreign markets. Nonfat dry milk and skim milk powder products (+9,760 MT YOY) led the charge followed by cheese (+5,793 MT YOY) and butterfat (+4,483 MT YOY). Sept. exports were estimated to be valued at \$655.0 million, nearly 28% more than year-earlier.

The increased value was driven by both increased price and increased volume relative to a year Class III & IV Futures. 11/19/21

ago. With shipping delays at western U.S. ports, the rebound in the Mexican market has been especially important for U.S. dairy products. Exports to Mexico are up 19% through Sept. compared to the same timeframe last year and nearly flat compared to pre-pandemic 2019.

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Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct

Prices es. The ma	Prices change daily. This market information is an example for educational purpos- es. The market data below are compiled weekly by Farmshine, via CME & USDA reports to pre-pandemic 2019.												
				ILY FUTUR									
	NOV-2	1 DEC-	21 JAN-2	22 FEB-22	2 MAR-22	2 APR-22	2 MAY-22	2 JUN-22	JUL-2	2 AUG-22	SEP-22	2 OCT-22	TREND
1 1													Avg. 18.77
*AVG =	17.94	18.33				18.90	18.87	18.97	18.92	18.90	18.94	18.86	<u>†</u> †
Average				\$/CWT) vs. w	•				40.45	40.47	40.40		Avg. 19.35
basis for	18.70	19.47		2 19.40 LOWEST DAI		19.36	19.39	19.37	19.45		19.43	19.27	11
North- East and	19.66 05/	21 19.29 0		05/21 18.94 1									1/21
Mid-East				03/20 14.25 0									
*MARGIN				ASIS & 201									CLASS 3)
= Milk	PA 0.60		1.17 0.85	0.62 1.67	1.53 2.55	2.29 2.15	1.82 1.66	1.58 1.45	0.99 1.25	1.03 1.31	0.95 1.15		
Price over				1.07 Der cwt.(USDA A									
Feed				0 OCT-20 N									
Cost		.41 10.								9 6.24			<mark>6.93</mark> 11
per cwt. YELLOW				s milk based on									
=				20 OCT-20									
payment triggered		15.04 1		.33 14.44 ilk based on 7		2.51 11.2					*10.19		
uiyyereu	9.44			91 11.31		•				.76 10.20		• • • • • •	0.68 11
		-							•				
	CLASS III MILK (\$/CWT) OPTIONS — PUTS — Daily Strike Price / Premium 18.00 0.08 18.25 0.36 18.75 0.78 19.00 0.95 19.00 1.04 19.00 1.12 18.75 1.06 19.00 1.15 19.00 1.23 19.00 1.27 19.00 1.27 18.75 1.15											75 1.15	
	D	EC-21	MAR-22	JUL-22			xample	DEC-21		22 MAY-2			
	F		., ,	OPTIONS -			ly Strike			ON) OPTION		LS	
	-	.40 35.50 .90 02.50	5.70 32.70 7.00 03.10			Price	/ Premium	340 35.00		80 340 35. 50 430 06.			
	CORN FU			0.10 03.30				JUJ 03.23	413 03.	.50 450 00.	05		
		MAR-2		2 JUL-22	SEP-22	DEC-22	MAR-23	MAY-23	JUL-23	SEP-23	DEC-23	JUL-24	TREND
	5.804				-	5.594	-	5.682	5.662	5.190	5.096	5.184	††
	5.004	5.002	. 5.92		5.004	- WEEK AG		5.002	5.002	5.190	5.090	5.104	
	5.752	5.814	5.85	6 5.866	5.630	5.530		5.610	5.596	5.204	5.116	5.202	
an	SOYMEA	L FUTURI	E S (\$/TON)										
	DEC-21	JAN-22	2 MAR-2	2 MAY-22	JUL-22	AUG-22	SEP-22	0CT-22	DEC-22	JAN-23	/IAR-23	MAY-23	TREND
88	362.2	2 356.1	354.1	355.8	359.4	359.0	357.8	355.2	356.3	354.8	347.4	344.5	↓↓
0.			004 7		0.05.4	WEEK AG			050.0		0.40.0	0444	
	374.8	3 368.5	364.7	364.3	365.1	362.7	359.6	360.3	358.2		343.9	344.1	
*=NEW	PA MILK			EST PSU VAL				Y CASH-SE OV DEC		URES (\$/LB FEB MAF		/21 SP01 MAY	CASH TREND 11/23/21
FEED =		FEED CC (\$/CWT n		C (\$/COW 5 lbs milk)	PA MILK MA (\$/CWT r			478 1.525		1.530 1.53			
\$/CWT.	*OCT(estin		.52↓↓	*9.3511		. 47 11		5 <mark>85</mark> 0.640		0.655 0.65		0.622	
IOFC = \$/COW	PREV M		.54	8.01		.68	BUTTER 1.9 CHEESE 1.7			1.980 2.02 1.810 1.82	0 2.025		
	YR AGO	/.	.49	8.48	11	.31							8575 ¹ / ¹
**USDA JUL ALL-MILK	3F *MAILBOX	* = NEW	ANNOUN	CED FEDEF	RAL ORDE	R PRICES	(\$/CWT)	CUI	RRENT FEI	DERAL ORDE	R VALUES	<u>5</u> (\$/LB) * = *	NEW
*FL \$22.30 3 *SE \$20.70 3 *APP \$20.40 3	70 \$18 77		t CL IItt	CL III11			.S ALL-MILM			4-WK 0CT. 1	,		2021
*N.ENG \$18.80 3 *MO N/A N	.90 \$18.12	9.17(DEC)	17.08(OCT) 17.83 (OCT)						UE MAKEAL			PONENTS
*IL \$17.20 3 *WI \$17.70 3	.82 \$17.75		40.00	MONTH A		3.95F	3.90F	BUT	ESE 1.76 TER 1.77		1.5695 1.6031		3.0130 ¹¹ 1.9414 ¹¹
*OH \$18.30 3 *PAwestern PA of *NY \$18.10 3	8.80 \$17.41 hly \$17.41	7.98	16.89	16.53 YEAR AGC	16.36	17.70	18.40	NFDI			1.1192		1.1801
*CA \$18.20 3 *PAeast\$18.50 3	0.84 \$17.32 0.78 \$17.16 0.81 \$17.10	9.87	13.63	21.61	13.47	17.90	18.00			147 0.1991	0.3456		0.3560 11
*WA/OR \$19.00 3 *MN \$17.80 4	.89 \$17.08 .02 \$17.04 CA			0SES (\$/HD)				ale New Holl	and, PA)				
*U.S. \$17.90 3 *IA \$17.90 4	.02 \$17.03 CC	WS: Fres		pringing HE						eef X 600-90) Ibs 900-1	1000 lbs Bl	JLLS (1000 lb)
	.76 \$16.13	125	0 1000 ⁻	1050	850	1100	975		300	N/A 62	25	925 7	00 (1)
*TX \$17.40 4 *NE/KS\$16.40 3	.88 \$15.49	95	0 1100 ²	 1085	<i>TWO</i> 950	WEEKS A	GO COMPAF 450	RISON	425	660 6	 75	900	N/A
*NM \$15.70 3				larket News f			STEERS (\$/	CWT LIVEWE	-	URRENT Be			R AGO
	PA Auction	n Markets	Nov. 23, 202	21			1250-1550			N/A			8.00 N/A
not include lower-end				LIVEWEIGHT	BUL	L CALVES:	No. 1 & 2,			105.00 175			0.00 11
'common'	Premium 54.75		Breakers 66.8511	Boners Le 56.0011 51				70-85 lbs		90.00 175	.00 9	0.00 9	0.00 Steady
Average		ТИ	O WEEKS A	GO				brou	ight to yo	ou by:			
to high dressing	N/A		66.85		.60				FAR		INC	pe	nnsylvania
			YEAR AGO 59.25		0.10	WILLILE .* LOC	BITYEXCE	LLEINCE					RTMENT OF AGRICULTURE
			00.20	55.55 50									