

# DAIRY MARKETS AND POLICY OVERVIEW

MARIN  
BOZIC

*GA Dairy*

*Jan 18, 2021*



# BEWARE OF ECONOMISTS BEARING GOOD NEWS...

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Marin Bozic | leading expert in dairy economics

“2020 will be a good year, a year to reinvest in your resiliency. Either through rebuilding your equity or by setting your risk management program not just for the next few quarters but also all the way through middle of 2021.”

January 21, 2020, Madison, WI

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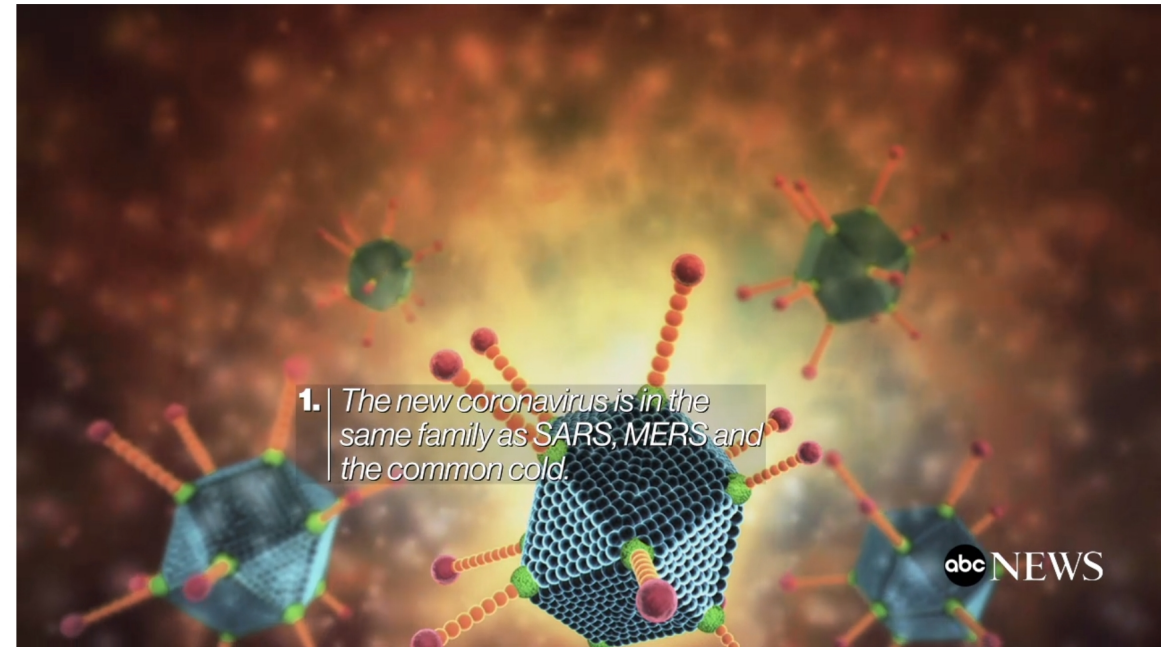
January 21, 2020, Madison, WI

## 1st confirmed case of new coronavirus reported in US: CDC

*Nearly 300 people have been sickened in China from the virus.*

By **Erin Schumaker**

January 21, 2020, 1:54 PM • 5 min read



...also January 21, 2020



# NATIONWIDE COVID-19 METRICS. 7-DAY AVERAGE LINES

Apr 1 - Jan 17

## Daily Tests

Jan 17: 1,836,498

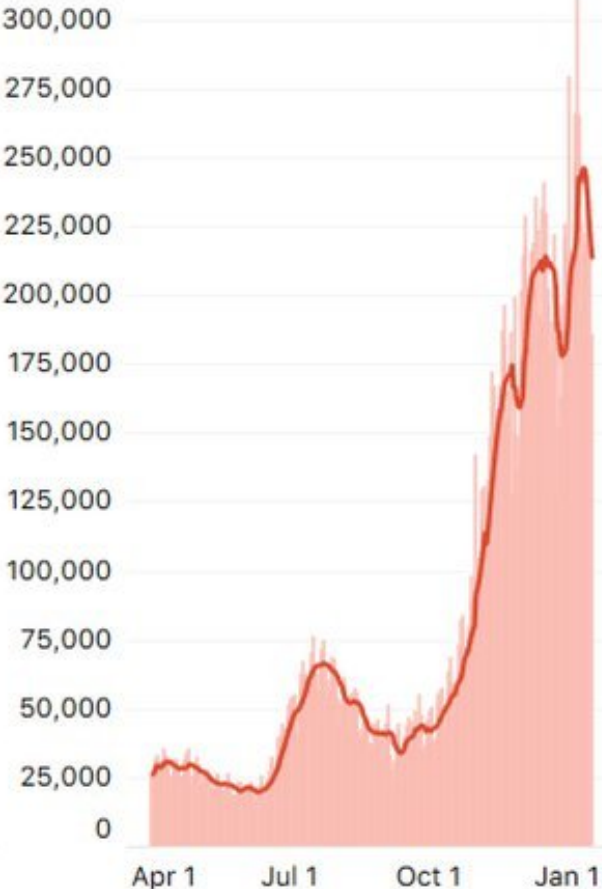
7-Day Avg: 1,957,648



## Daily Cases

Jan 17: 185,518

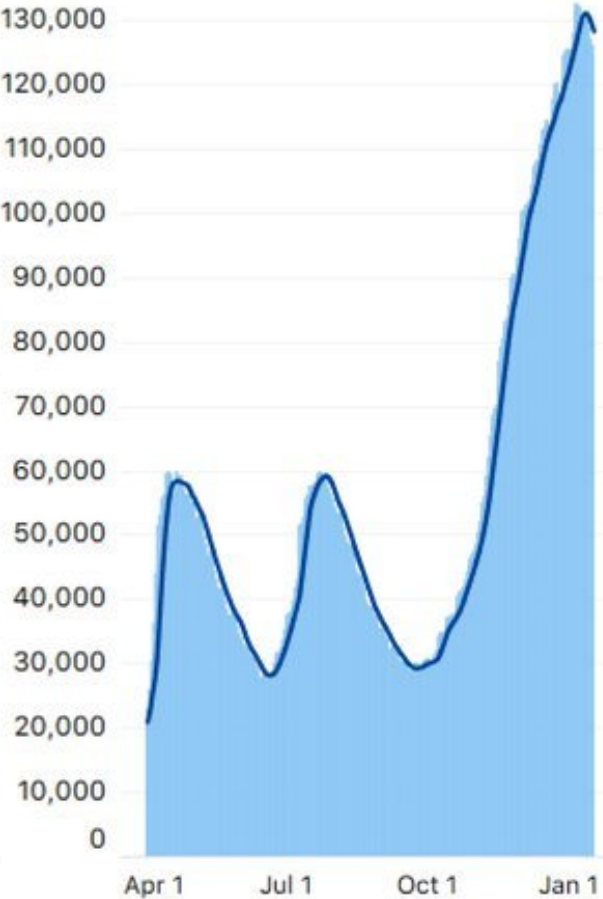
7-Day Avg: 213,707



## Currently Hospitalized

Jan 17: 124,387

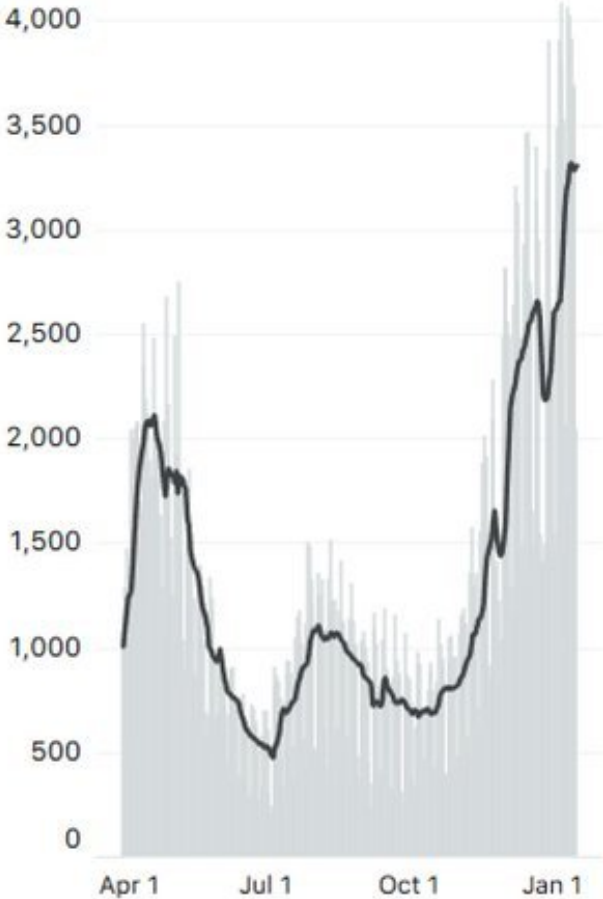
7-Day Avg: 128,317



## Daily Deaths

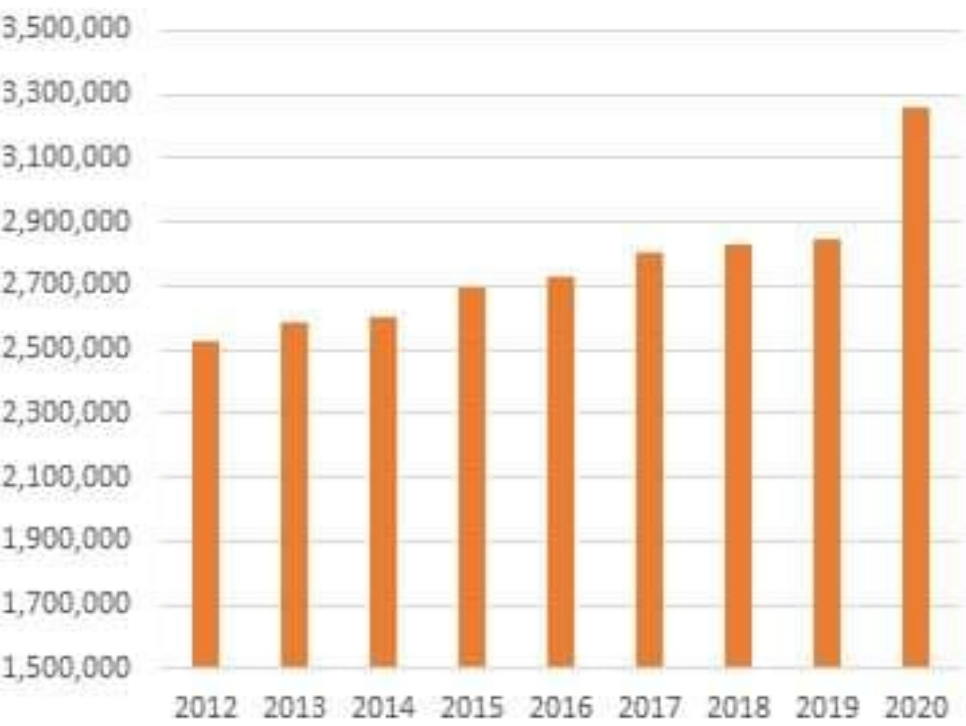
Jan 17: 2,044

7-Day Avg: 3,307



# COVID-19 DID INCREASE TOTAL U.S. DEATHS IN 2020

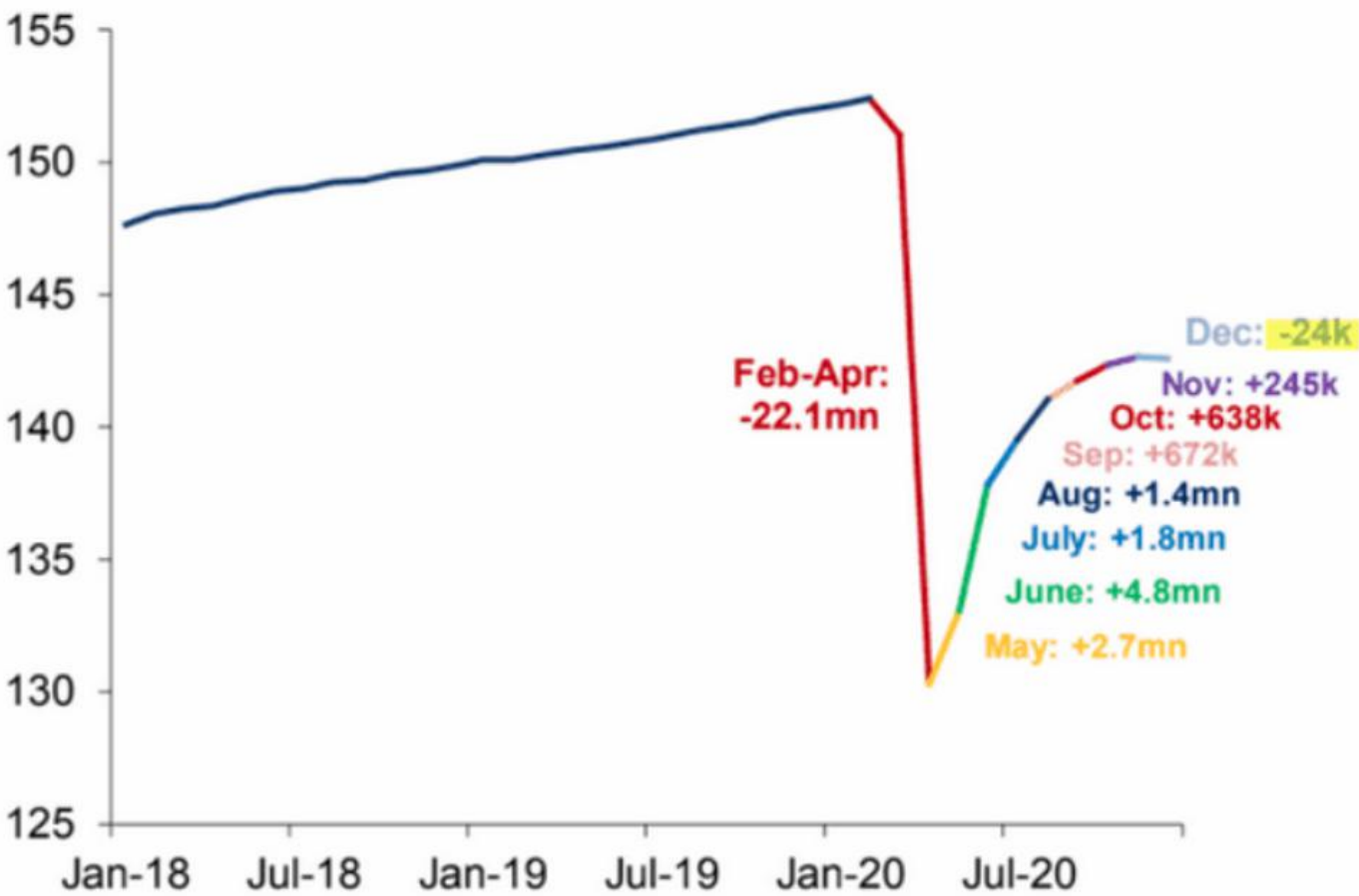
Cumulative U.S. Deaths as of Week 52  
(All Causes)



Source Data:  
<https://www.cdc.gov/flu/weekly/weeklyarchives2020-2021/data/nchsdata01.csv>

US: Nonfarm payroll employment

Millions



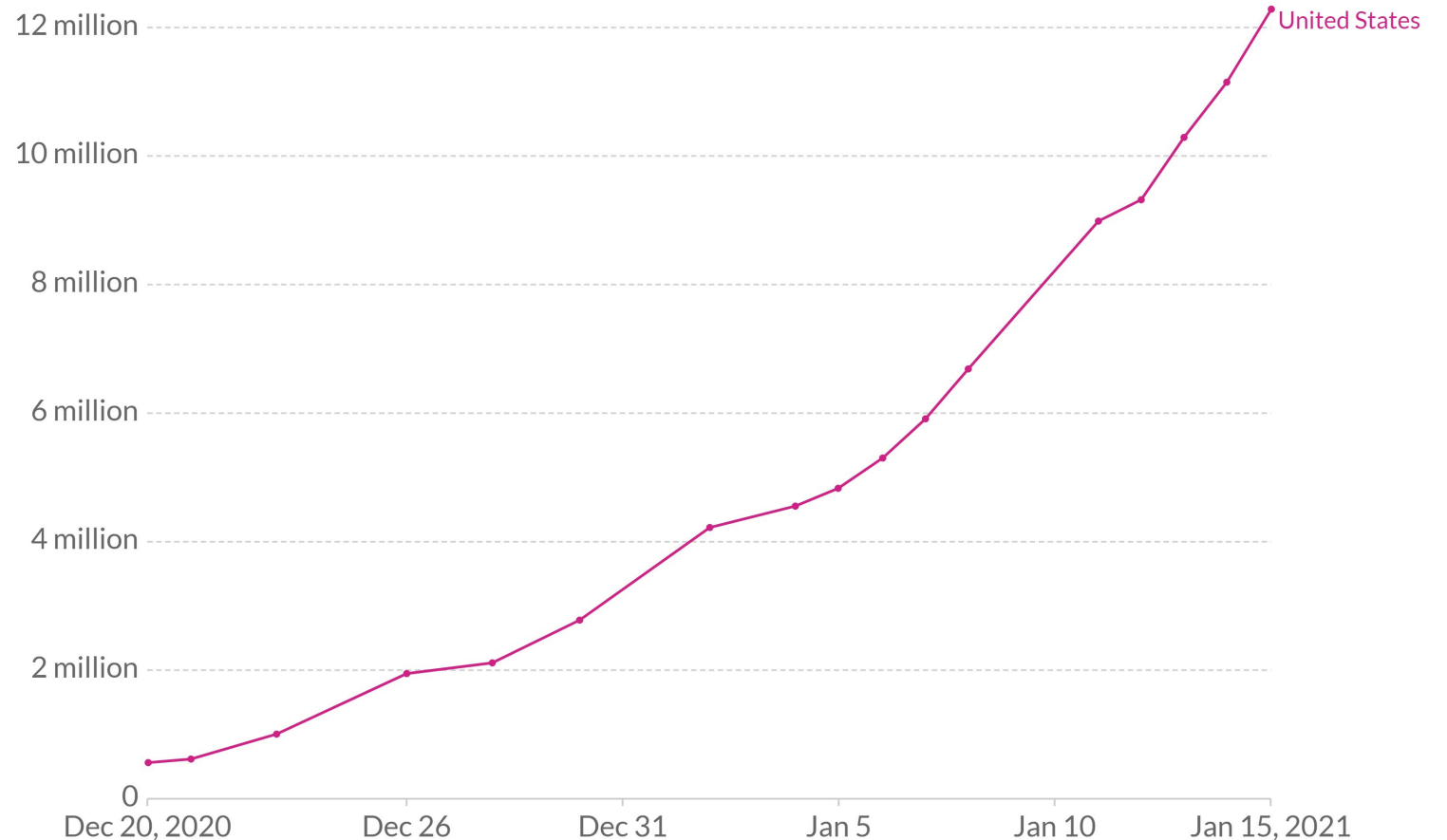
# COVID-19: WORSE BEFORE IT GETS BETTER



## Cumulative COVID-19 vaccination doses administered

This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).

Our World  
in Data



Source: Official data collated by Our World in Data – Last updated 18 January, 11:30 (London time)

CC BY

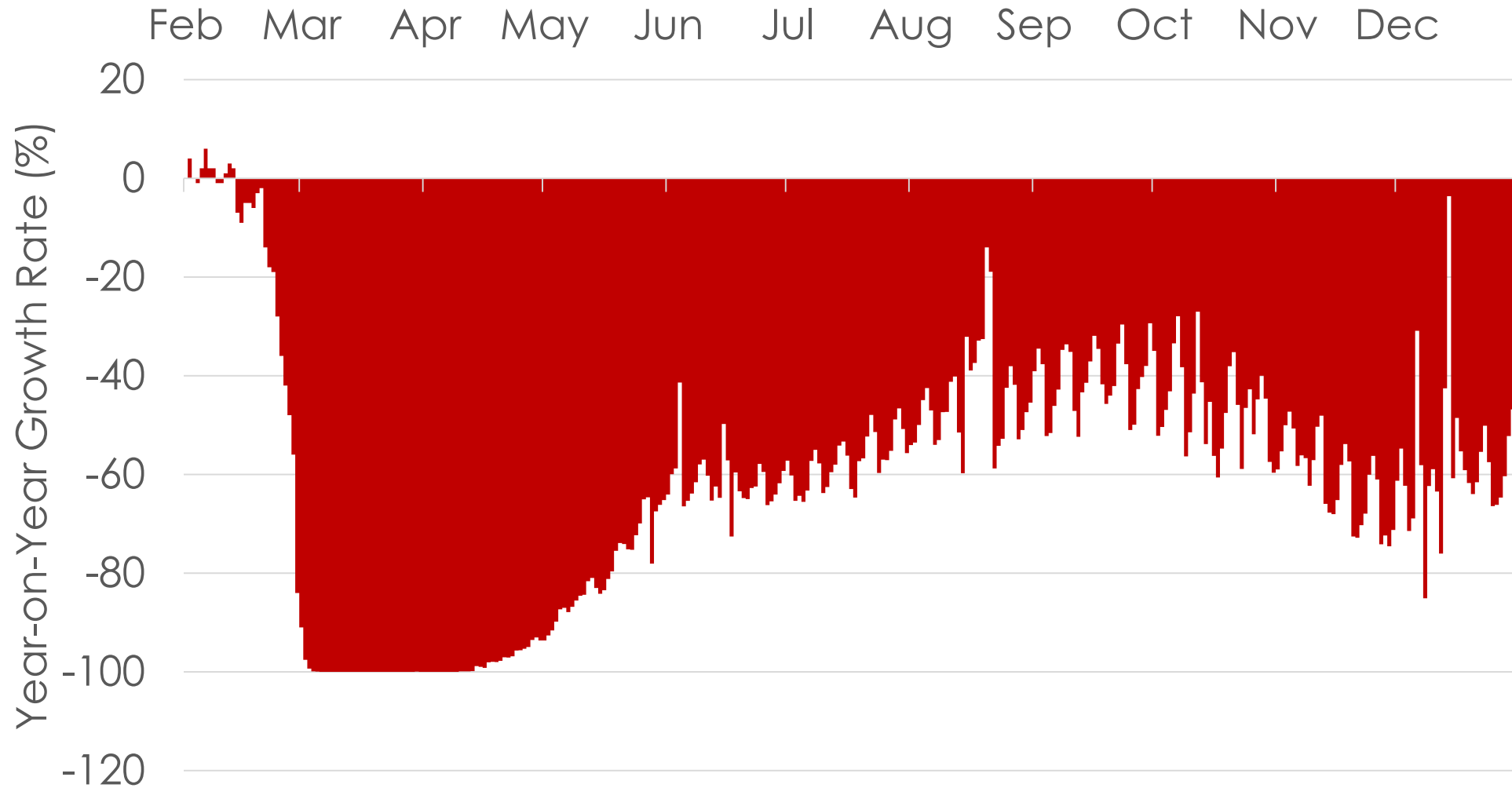
**Dec 2020:**  
Vaccinations start for essential workers and critical population groups

**Jan-May 2021:**  
Gradual rollout

**June 2021:**  
Vaccine widely available

**End of Summer 2021:**  
Pandemic ends in U.S.  
Return to normalcy

# OpenTable bookings under COVID-19



# DOMESTIC RETAIL DAIRY SALES

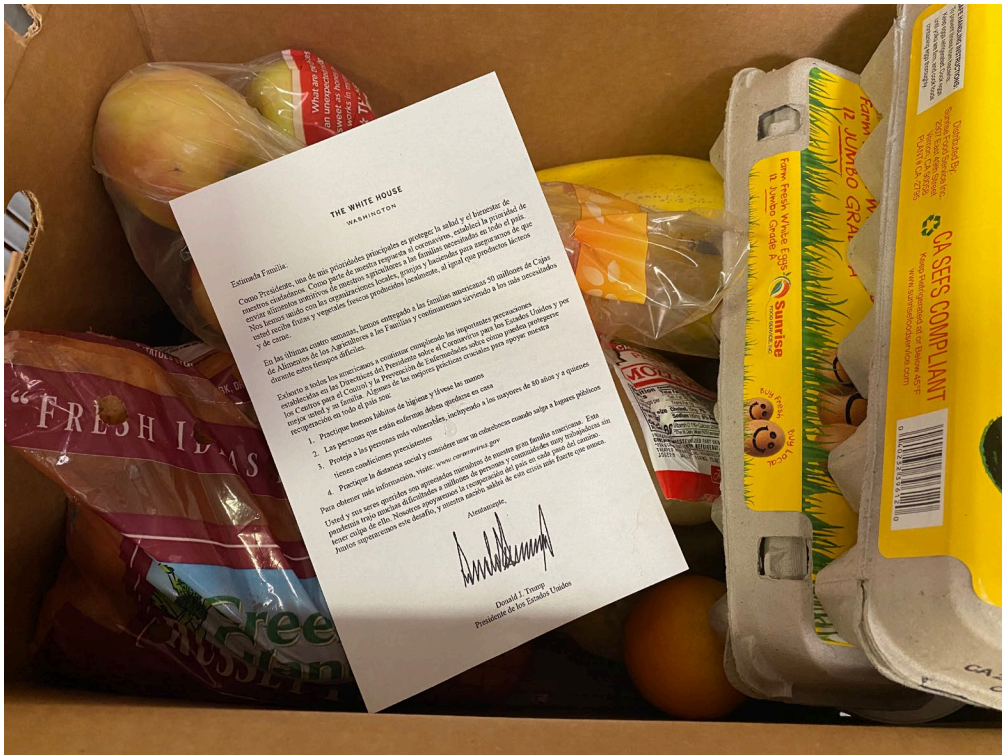
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Segment	March 15	March 29	April 5	Nov 2020	YTD Nov 29
Fluid Milk	+33%	+3.4%	+14%	-2.1%	+2.0%
Cheese	+62%	+26%	+33%	+9.0%	+13.6%
Butter	+85%	+59%	+73%	+4.6%	+23.1%
Yogurt	+41%	-7%	-2%	+3.4%	+3.4%

Source: IRI, published by Midwest Dairy Association



# FARMERS TO FAMILIES FOOD BOX PROGRAM



AGRICULTURE · Published August 25

## Ivanka Trump announces \$1B more for 'Farmers to Families Food Box' program

The program has helped bring more than 70 million boxes of food from small U.S. farms to families in need since May

# FARMERS TO FAMILIES FOOD BOX PROGRAM

With USDA's Farmers to Families **Food Box program** set to **end** October 31, Agriculture Secretary Sonny Perdue said the Trump Administration would prefer to **end** the **program** and let the market do its job. ... Perdue said USDA has funded the **food box program** with \$4 billion, and it's been a huge success. Sep 23, 2020



[www.producebluebook.com](http://www.producebluebook.com) › 2020/09/23 › perdue-time-...

Perdue: Time to end the food box program – Produce Blue Book



# FOOD BOX

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## **USDA Announces Continuation of the Farmers to Families Food Box Program, Fifth Round of Food Purchases**

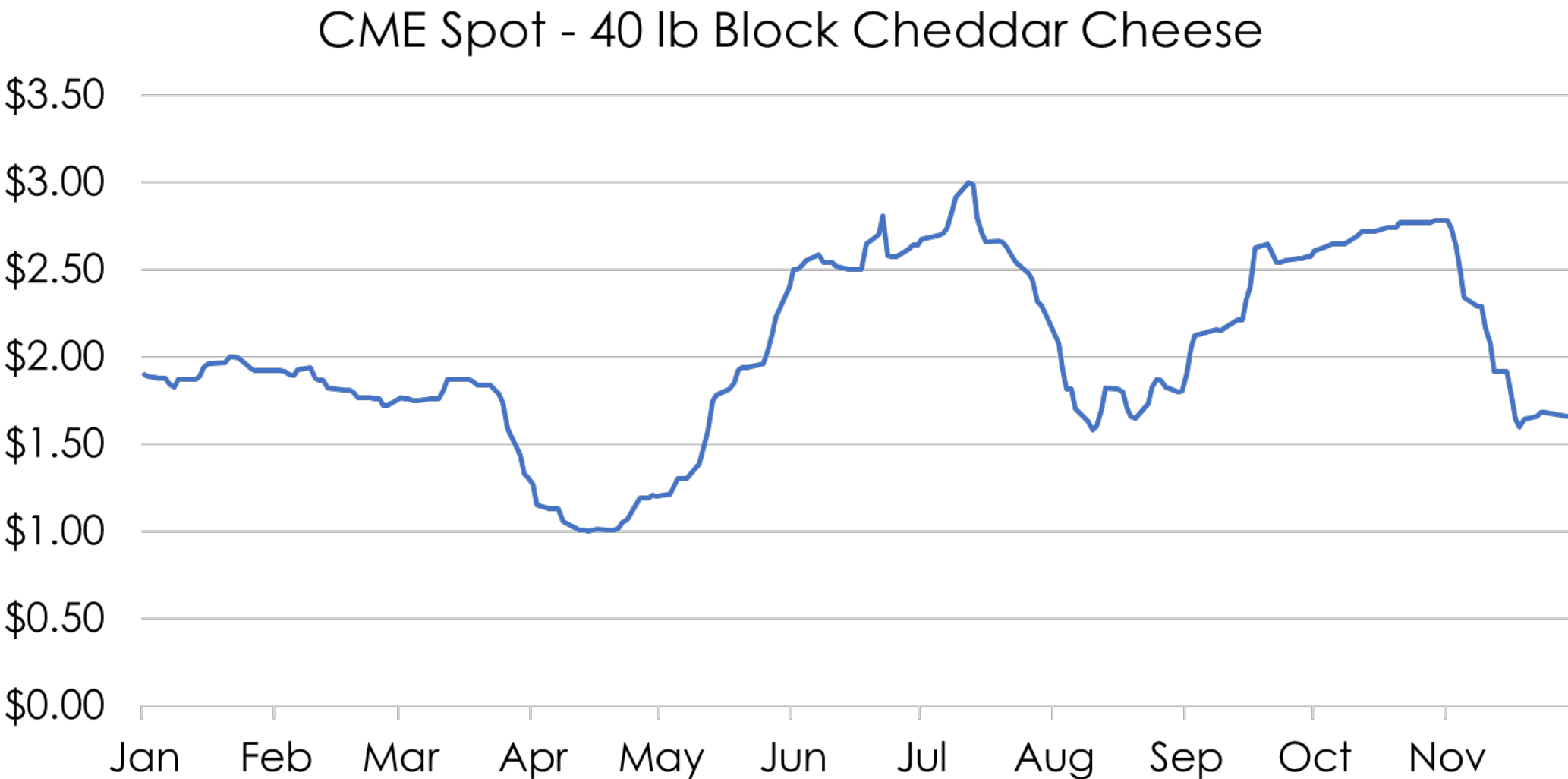


*The Washington Post*

At Ivanka Trump's urging,  
White House announces  
new \$1.5 billion in  
funding for Farmers to...

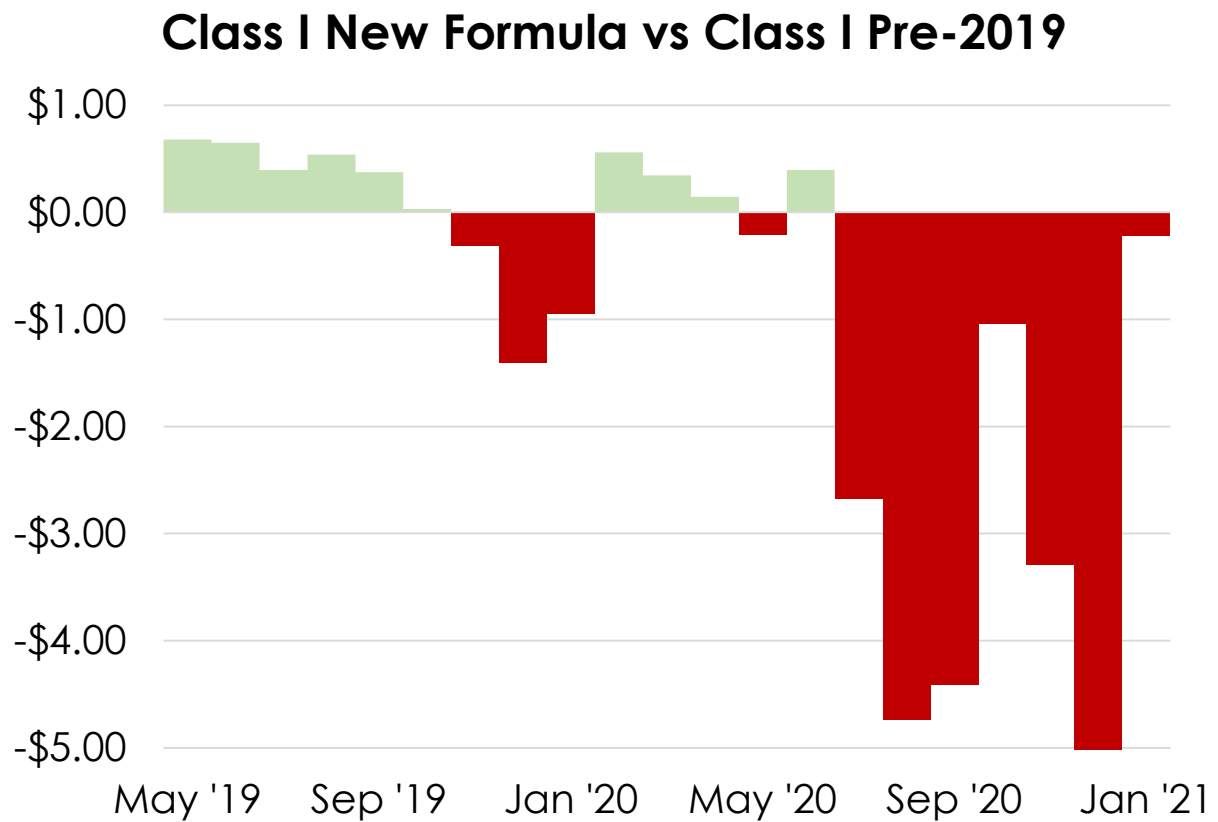
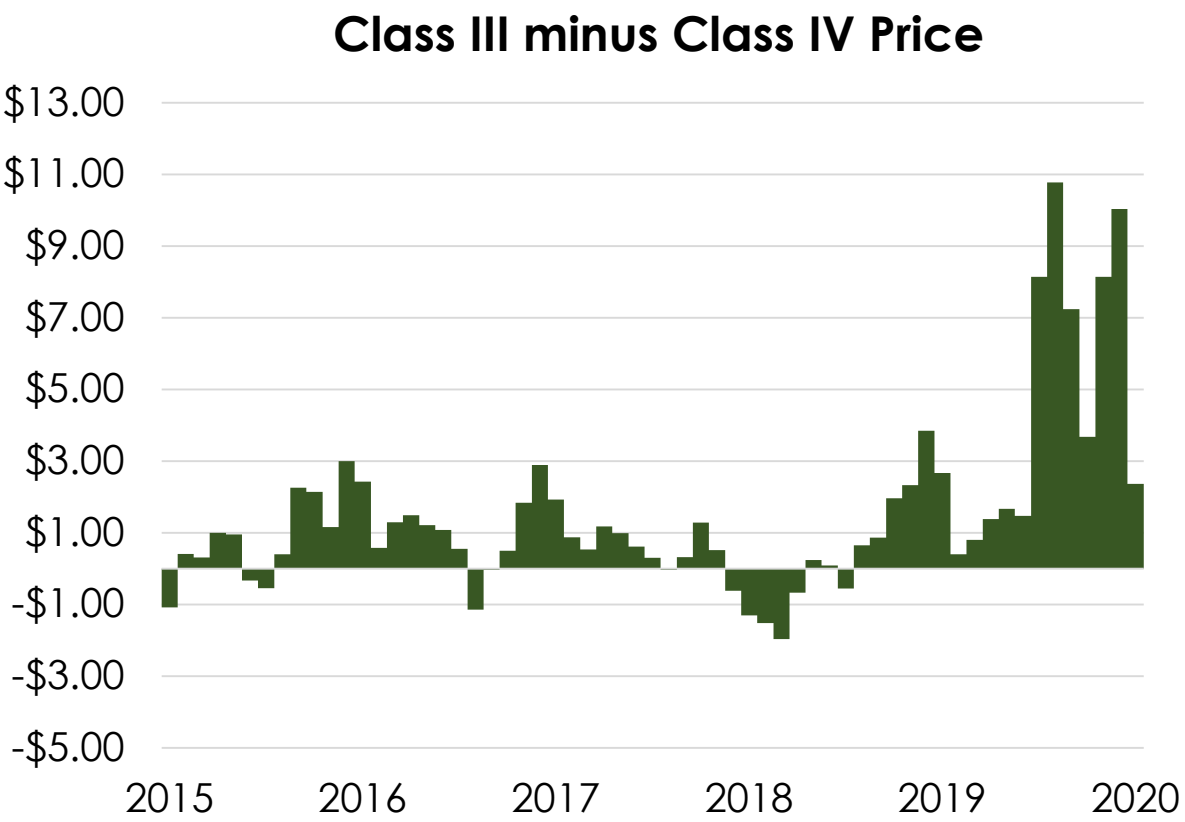
1 day ago

# POLICY-INDUCED MARKET VOLATILITY



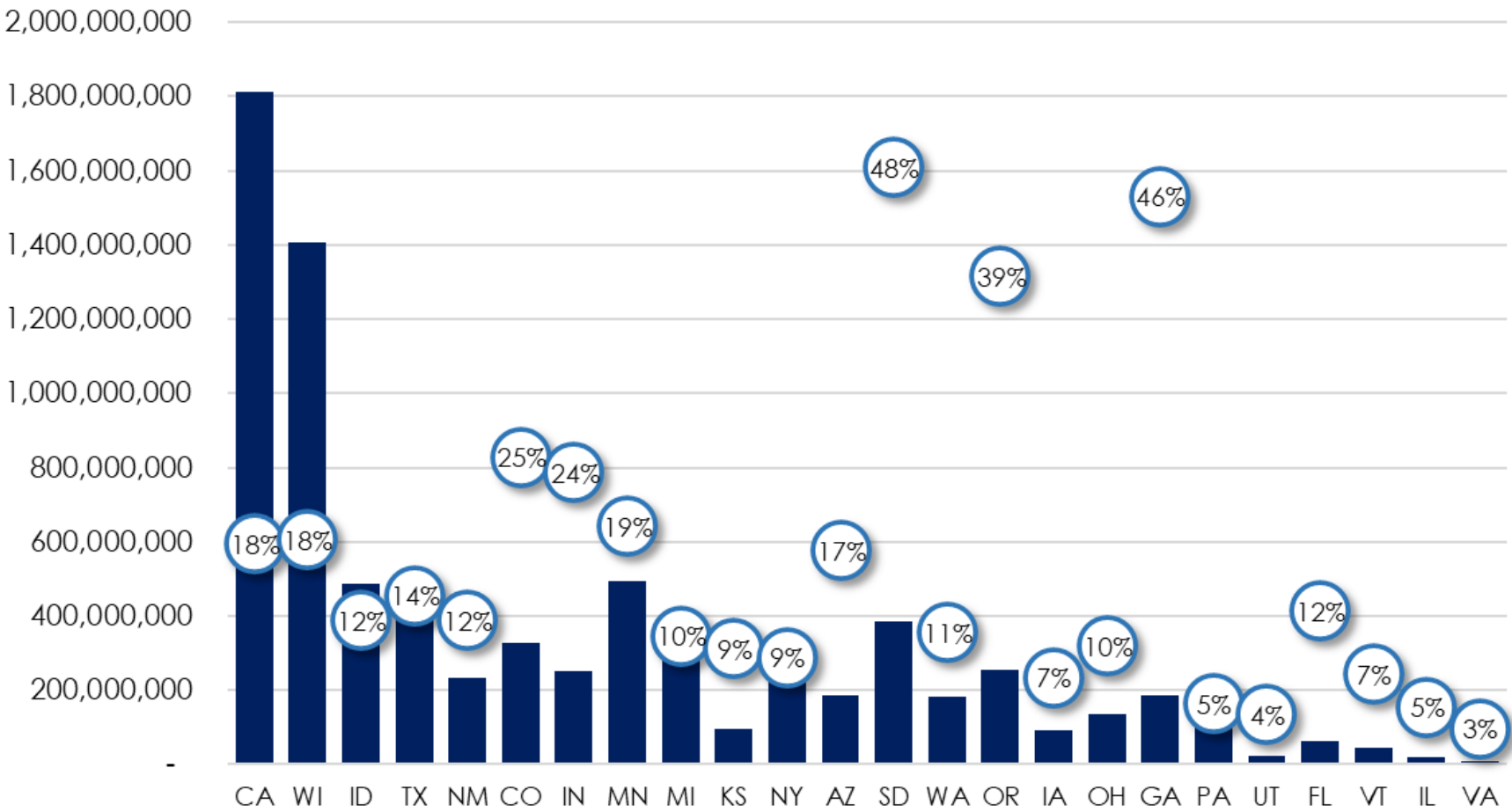


# CLASS I PRICE PERFORMANCE



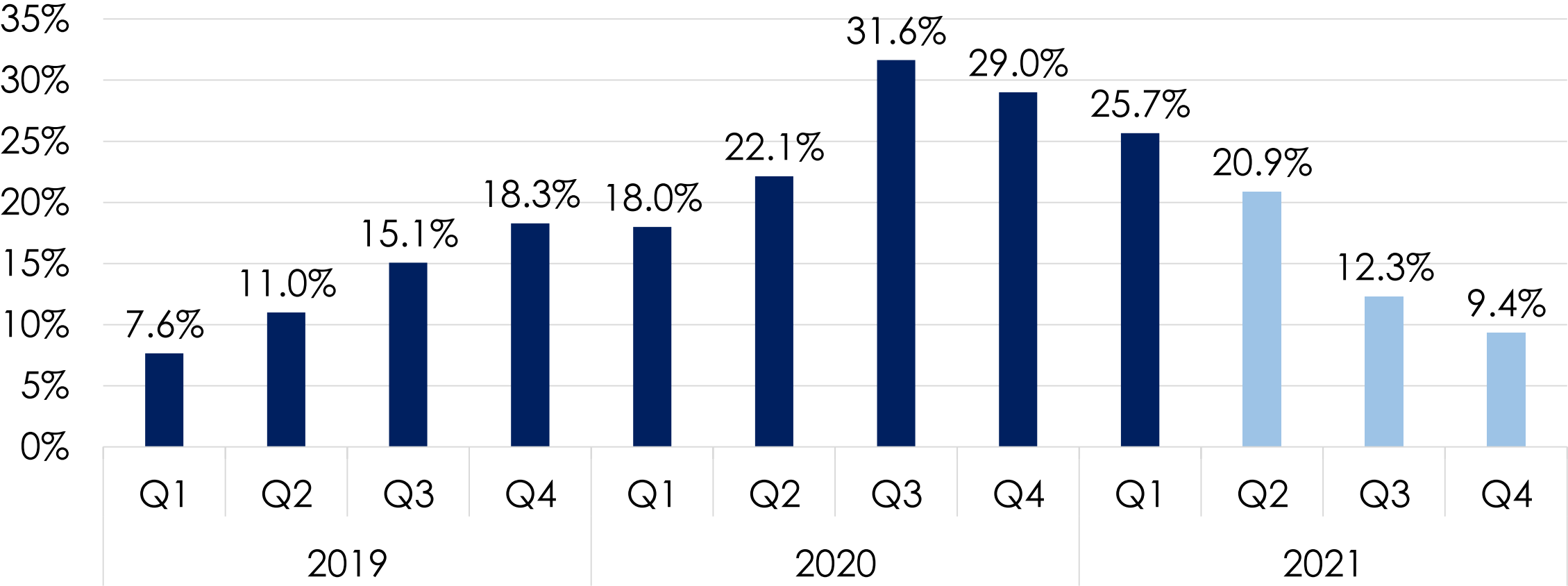
# DRP UTILIZATION – GEORGIA AND SOUTH DAKOTA LEAD FOR Q3 2021

Top 24 States: Declared Covered Milk Production for Jul-Sep '21 (lbs)

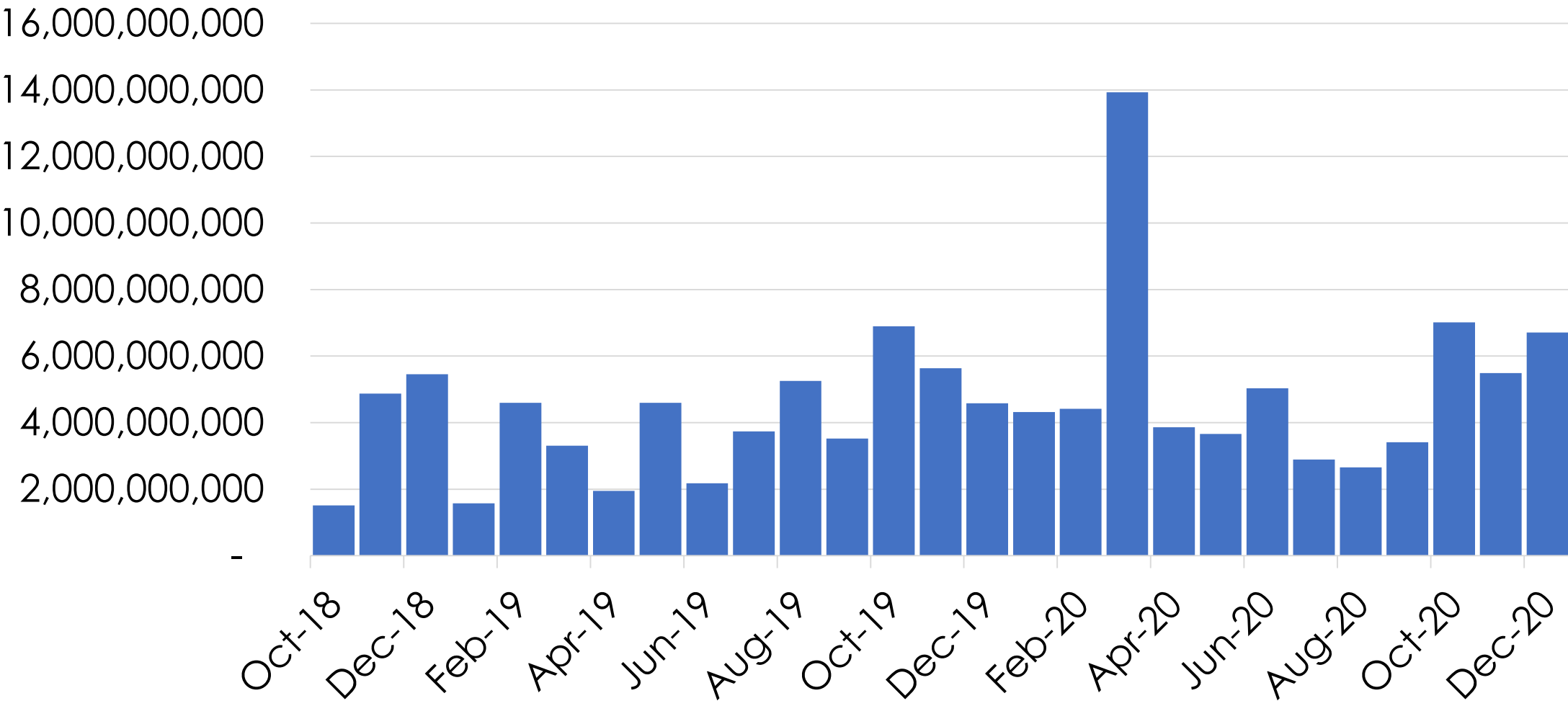


# DRP UTILIZATION TRENDS

Percentage of U.S. Milk Production Covered by Dairy Revenue Protection

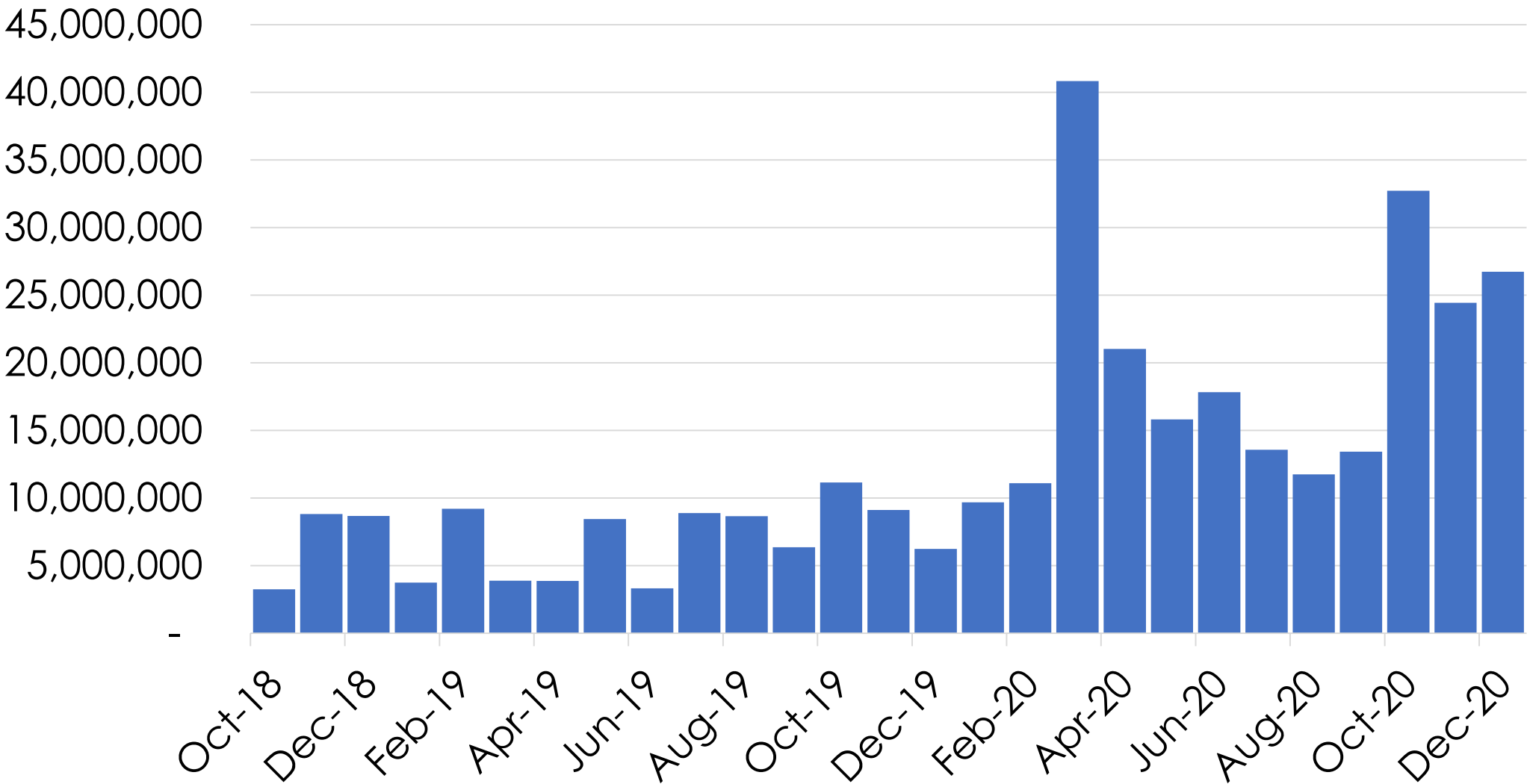


# DRP SALES BY MONTH: DECLARED COVERED MILK PRODUCTION (LBS)

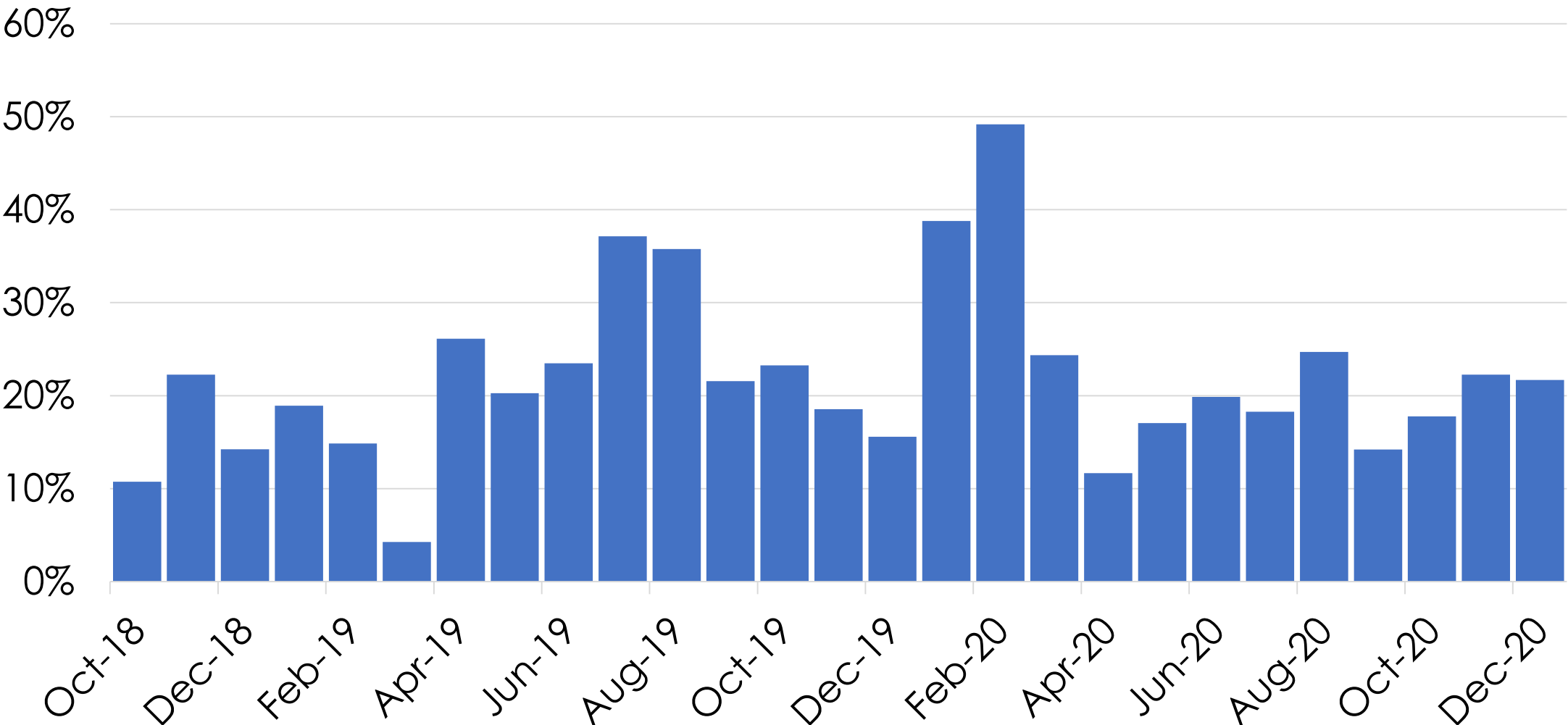




# DRP SALES BY MONTH: PRODUCER PREMIUM AMOUNT (\$)



# DRP SALES BY MONTH: 4<sup>TH</sup> AND 5<sup>TH</sup> INSURABLE QUARTER (% OF LBS)



# DISTANT HEDGING TO COVER THE ENTIRE CRISIS BEFORE IT STARTS

Sales Effective Date: February 5, 2020      ☒ Apr-Jun, 2020    ☐ Jul-Sep, 2020    ☐ Oct-Dec, 2020    ☐ Jan-Mar, 2021    ☐ Apr-Jun, 2021

Class Blend (0% Class III, 100% Class IV)	Expected Revenue	\$17.02	\$17.64	\$17.74	\$17.44	
	Revenue Guarantee	\$16.17	\$16.76	\$16.85	\$16.57	
	Producer Premium Amount	\$0.1063	\$0.1537	\$0.2121	\$0.2095	N/A

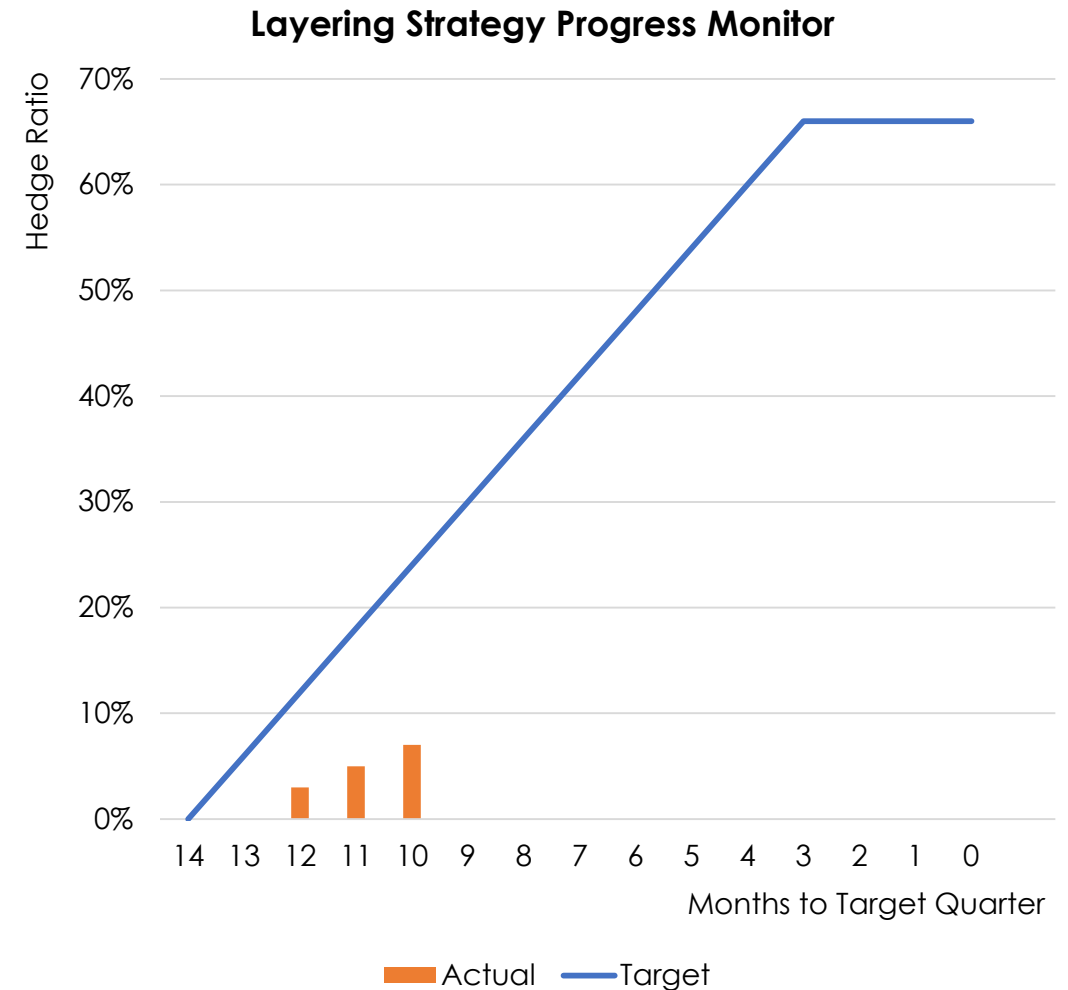
Sales Effective Date: April 6, 2020      ☒ Jul-Sep, 2020    ☐ Oct-Dec, 2020    ☐ Jan-Mar, 2021    ☐ Apr-Jun, 2021    ☐ Jul-Sep, 2021

Class Blend (0% Class III, 100% Class IV)	Expected Revenue	\$12.23	\$12.91	\$13.68	\$14.42	
	Revenue Guarantee	\$11.62	\$12.26	\$13.00	\$13.70	
	Producer Premium Amount	\$0.4452	\$0.6410	\$0.5487	\$0.5546	N/A

# LAYER-IN TO MINIMIZE REGRET

Hedging Q3 and Q4 2021:

- 1) By end of Dec 2020 – 25% sold
- 2) Jan – Feb 2021 – another 20-25%
- 3) Mar – another 20% for Q3, 10% for Q4
- 4) When you “don’t like” prices still do *some*. When you “like” the prices, do more.
- 5) Target having 65% of milk declared covered 3 months before the start of the quarter, with  $PF = 1.5$
- 6) Leave 35% for ‘opportunistic hedging’ in the last 3-4 months.





# BUDGETING DRP

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Keep in mind these factors:

- 1) Distant hedging = effective hedging, but it's not the cheapest.
- 2) 95% Coverage Level is 40% subsidized. For every \$100 you pay in premium, over time, you will collect  $\$1.00/60\% = \$166$  – Excellent ROI. For example, if you spend \$0.35/cwt, over time your indemnities will average \$0.58/cwt and your *net* farm income will be higher by \$0.23/cwt.
- 3) Do not use mix-class endorsements. It is not clear anymore that in extreme environments Class III and IV would move together as tightly as they would have historically.
- 4) Lenders love producers with superior risk management discipline and execution. If your  $ROI > \text{interest rate}$ , then your ROE grows faster with higher leverage. Disciplined use of DRP may allow you to have higher leverage on your farm.

All things considered, \$0.30-\$0.40/cwt is a reasonable budget when uncertainty is high.

# DAIRY MARGIN COVERAGE PRICES FOR 2020

Month	Corn (\$/bu)	Blended Alfalfa Hay (\$/ton)	Soybean Meal (\$/ton)	All Milk (\$/cwt)	Final Feed Costs for DMC(\$/cwt)	Milk Margin Above Feed Costs for DMC(\$/cwt)
January	3.79	190.50	300.11	19.60	8.88	10.72
February	3.78	190.50	295.28	18.90	8.84	10.06
March	3.68	190.00	312.38	18.00	8.85	9.15
April	3.29	195.00	295.39	14.40	8.37	6.03
May	3.20	195.00	288.56	13.60	8.23	5.37
June	3.16	190.00	288.66	18.10	8.11	9.99
July	3.21	183.00	291.25	20.50	8.09	12.41
August	3.12	182.00	290.18	18.80	7.97	10.83
September	3.41	181.50	319.99	17.90	8.50	9.40
October	3.61	182.50	367.11	20.20	9.07	11.13
November	3.79	183.50	387.83	21.30	9.43	11.87
December						

# DAIRY MARGIN COVERAGE HISTORICAL PERFORMANCE

## DMC Historic Analysis

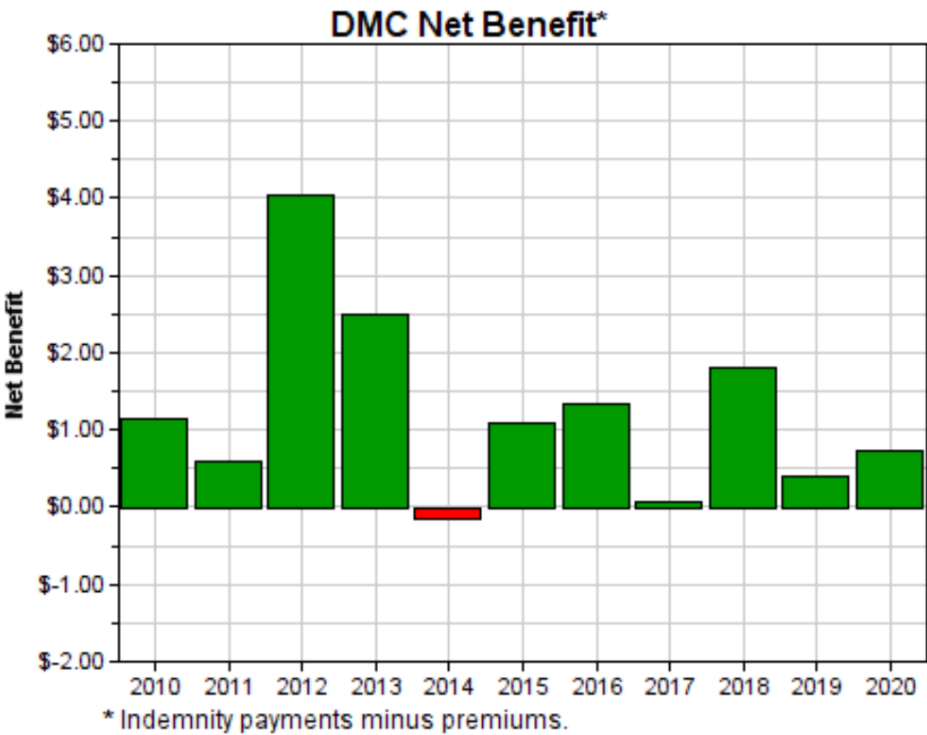
Start Year\*

2010

End Year

2020

Total number of months:	129
Number of months with payout:	92
Average DMC premium per cwt:	\$0.150
Average payment per cwt:	\$1.38
Max payment per cwt:	\$6.83
Average net indemnity per cwt:	\$1.23
Cumulative net indemnity:	\$643,771



\* Start years prior to the beginning of the DMC program in 2019 are estimates

Over the last 10 years, for every \$1.00 paid in premium for Dairy Margin Coverage, producers would have collected \$9.00 in indemnities.

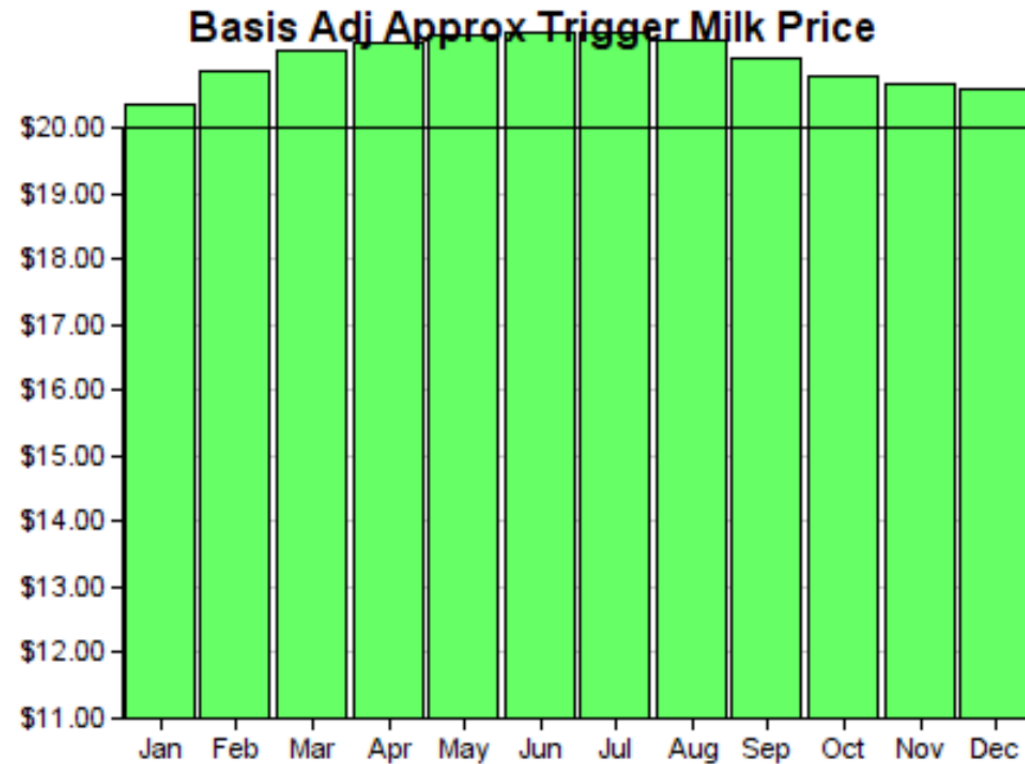
# DAIRY MARGIN COVERAGE COVERAGE ANALYSIS

## DMC Tier 1 Coverage Analysis

Forecast year: 2021 ▼

Local Basis: .70

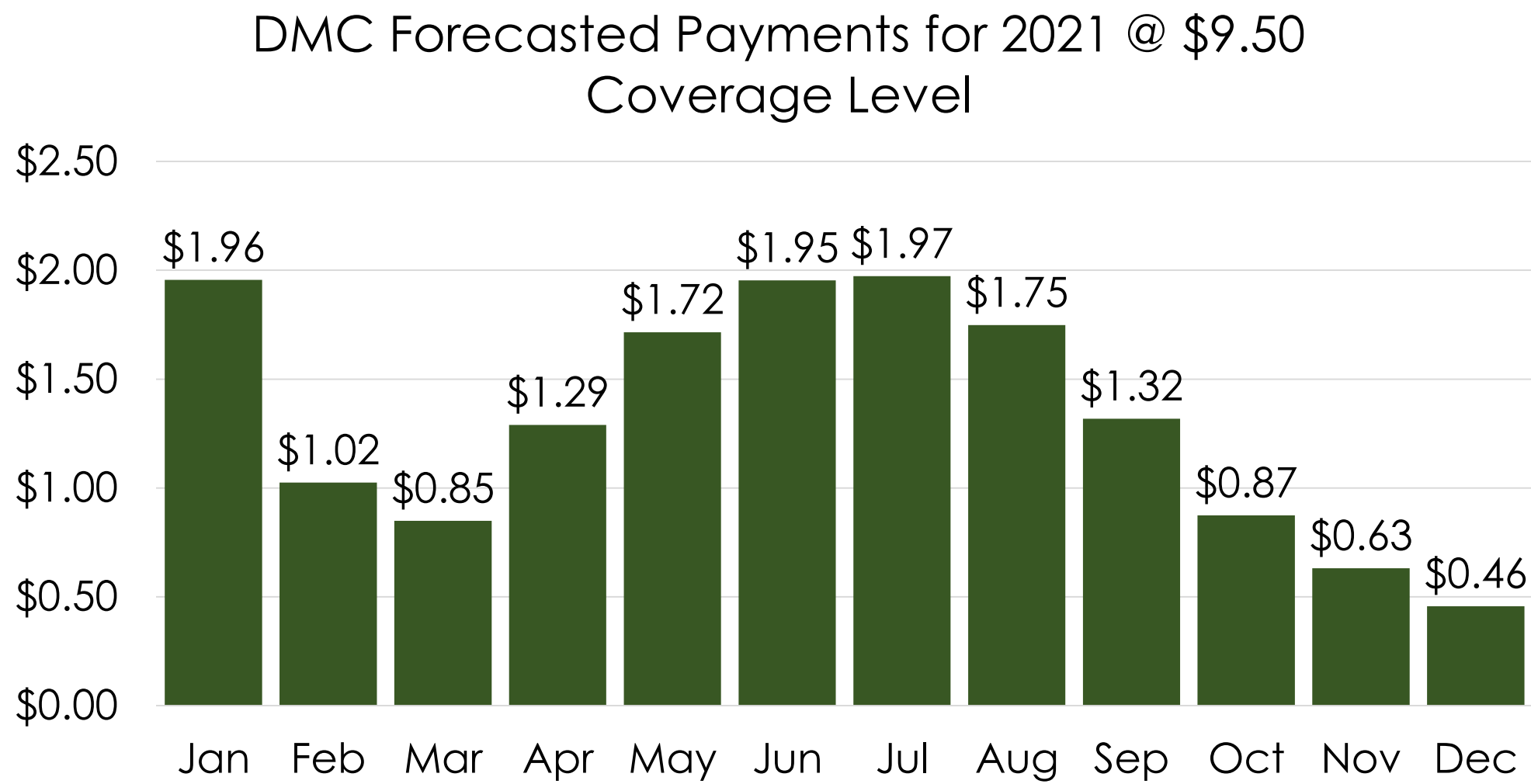
	Forecast Feed Cost*	Coverage Level	Local Basis	Milk Price Trigger
Jan	\$10.16 +	\$9.50 +	\$0.70 =	\$20.36
Feb	\$10.68 +	\$9.50 +	\$0.70 =	\$20.88
Mar	\$10.95 +	\$9.50 +	\$0.70 =	\$21.15
Apr	\$11.11 +	\$9.50 +	\$0.70 =	\$21.31
May	\$11.20 +	\$9.50 +	\$0.70 =	\$21.40
Jun	\$11.24 +	\$9.50 +	\$0.70 =	\$21.44
Jul	\$11.25 +	\$9.50 +	\$0.70 =	\$21.45
Aug	\$11.11 +	\$9.50 +	\$0.70 =	\$21.31
Sep	\$10.86 +	\$9.50 +	\$0.70 =	\$21.06
Oct	\$10.60 +	\$9.50 +	\$0.70 =	\$20.80
Nov	\$10.47 +	\$9.50 +	\$0.70 =	\$20.67
Dec	\$10.37 +	\$9.50 +	\$0.70 =	\$20.57



\* Feed Cost were estimated based on futures market values as of 1/12/21

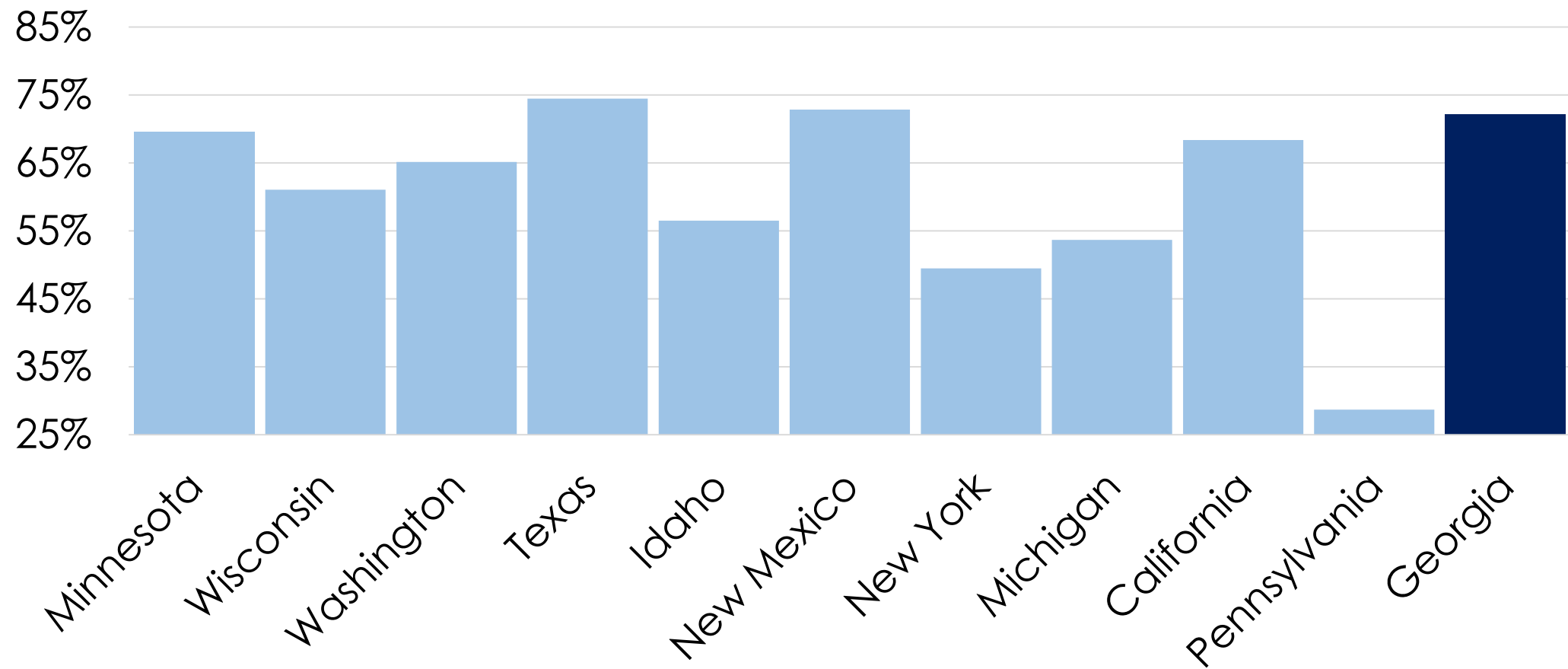


# DAIRY MARGIN COVERAGE PROJECTED PAYMENTS FOR 2021



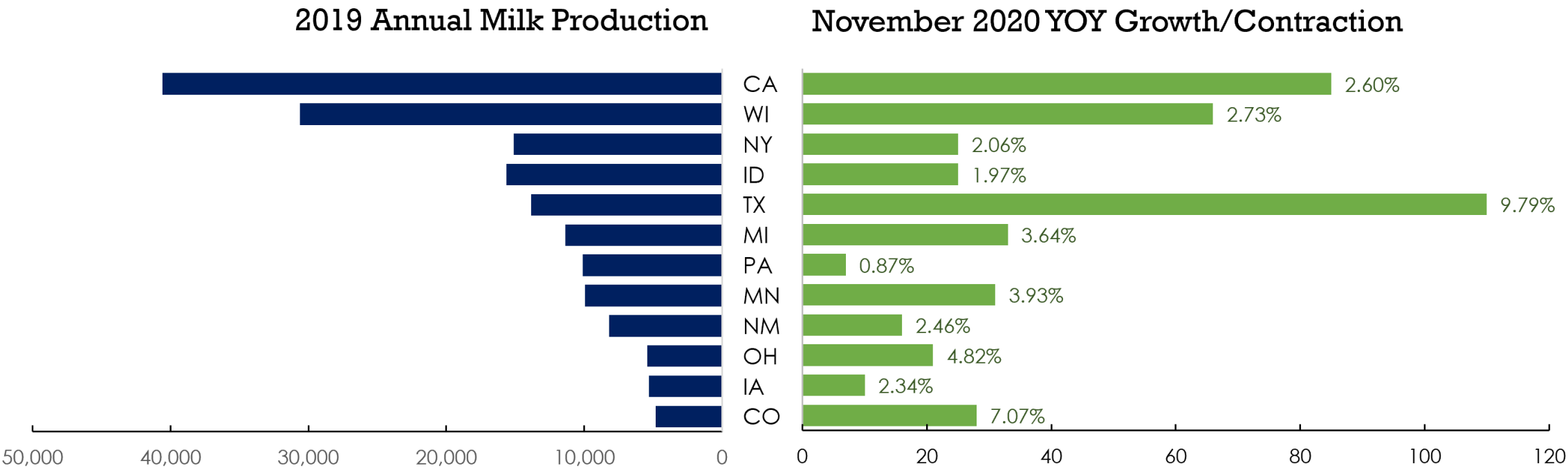
# DAIRY MARGIN COVERAGE SIGNUP STATISTICS FOR 2021

Dairy Margin Coverage: Dairy Operations Enrolled for 2021 (as % of Licensed Operations in 2019)



# MILK OVERSUPPLY COMMETH

## Milk Production: Selected States



# WHAT WILL 2021 BRING?



**Glanbia Nutritionals**

24,013 followers

18h • 🌐

+ Follow

First milk arrived at the new MWC cheese and whey plant!

<https://lnkd.in/gB7RD-p>



**MWC Begins Production in Michigan**

glanbianutritionals.com • 2 min read

- 8 million lbs of milk intake per day
- 20% of Michigan milk supply
- 800,000 lbs of cheddar cheese in 40-lb blocks for retail and foodservice
- Plant started taking in milk by November, at full capacity in Q2 2021.
- Additional cheese plant expansions in Minnesota and Iowa



# 2021 – MODIFIED BLOC VOTING



Market Intel  
August 5, 2020

## Dairy Farmers Deserve a Voice and a Vote on Policy That Impacts Their Farms

Modified Bloc Voting Could Give it to Them



# FROM COMMODITY TO COMPONENT PRICES



Commodity	Commodity Price					Make Allowance		Manufacturing Yield		Component Price	Component
Butter	[	\$2.2596	-	\$0.1715	]	x		1.211	=	\$2.5287	Butterfat
Dry Whey	[	\$0.3372	-	\$0.1991	]	x		1.03	=	\$0.1422	Other Solids
Nonfat Dry Milk	[	\$0.7824	-	\$0.1678	]	x		0.99	=	\$0.6085	Nonfat Solids
Cheese	[	\$1.4868	-	\$0.2003	]	x		1.383	=	???	???

# EMERGENCY CORONAVIRUS RELIEF BILL OF 2020

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## Supplemental Dairy Margin Coverage

- DMC allows producers to protect their “production history” – the highest of 2011, 2012, 2013 + national milk per cow increases through 2018.
- Supplemental DMC allows producers to cover up to 75% of the difference between their 2019 production and their production history.
- Only **if already** signed up for 2021.
- Sets the stage for 2023 Farm Bill

## Food purchases

- At least \$1.5 billion on food purchases, including produce, dairy and meats.
- USDA must conduct a preliminary review of existing programs before new solicitations
- Not clear how fast will USDA spend the money, or when it will start



# EMERGENCY CORONAVIRUS RELIEF BILL OF 2020

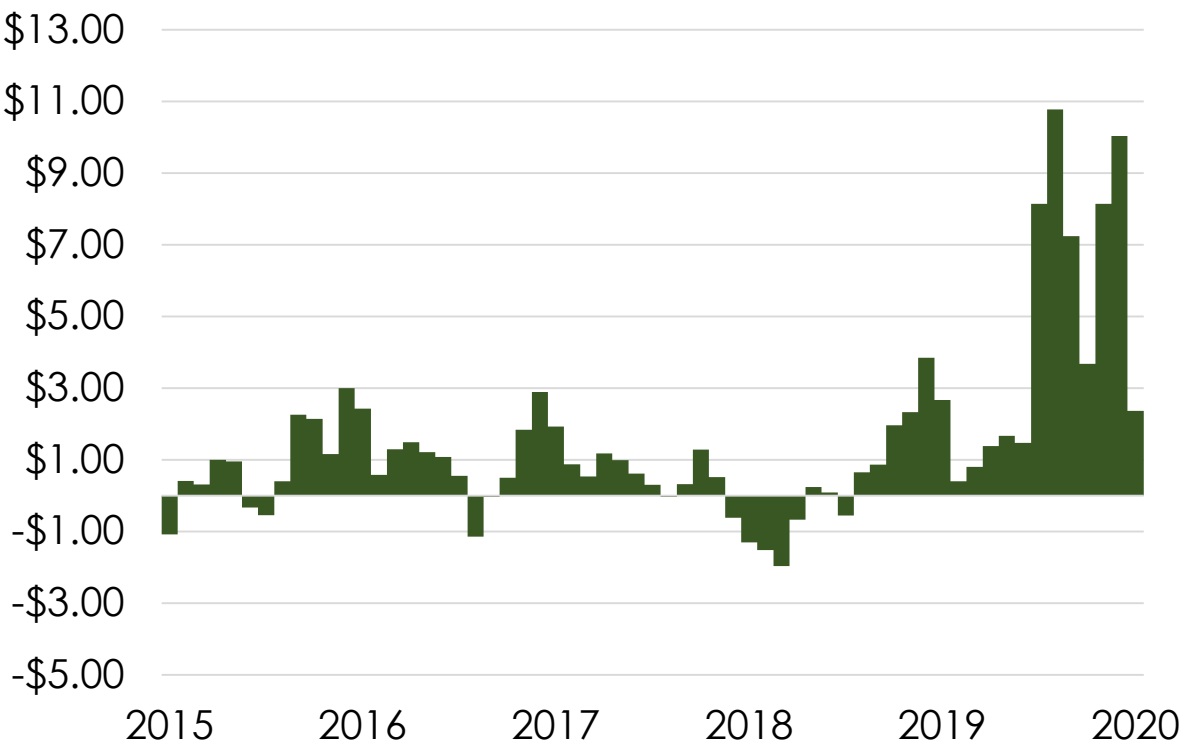
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## Dairy Donation Program

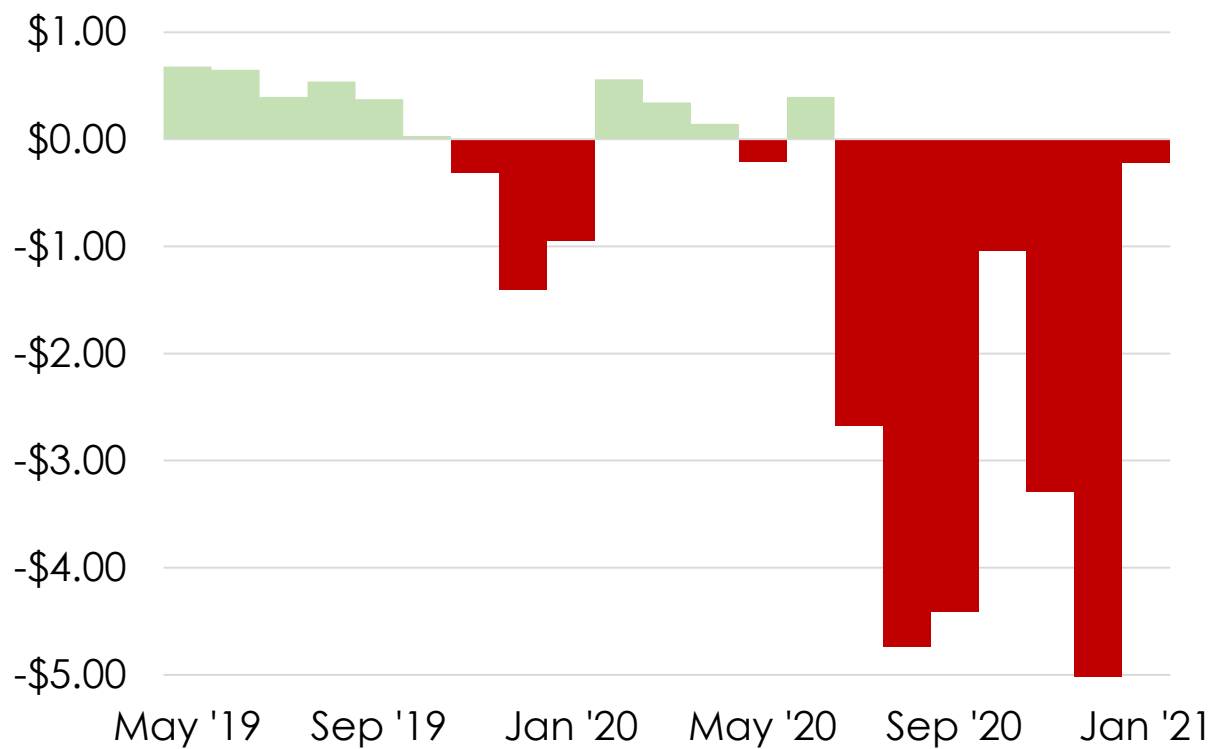
- \$400 million
- Dairy products can be *donated* to food banks and other nonprofits
- USDA will reimburse manufacturers for cost of milk used in production of donated products
- Reimbursement rates not lower than the lowest FMMO class, nor higher than the highest FMMO class. But cheese does not need to be reimbursed at Class III price
- Essentially a free put on cheese and butter inventory
- Will be used for beverage milk if oversupply would lead to dumping
- Money authorized through Sep 2021
- Donations already made also eligible

# CLASS I PRICE PERFORMANCE

Class III minus Class IV Price



Class I New Formula vs Class I Pre-2019



# HOW TO FIX CLASS I?

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Proposal	Concerns
Do nothing	Continued government intervention
Go back to the max-of formula	Harder to hedge Class I exposure
Modify \$0.74 to 2-year mov. avg + 3 mth lag	Adds complexity
Class III + moving average	Class IV may surpass Class III
Max-of prior month announced price + create Class I futures contract	CME not willing to play along
Set Class I price 3 months in advance, max-of futures	Depooling
Revert to max-of + allow forward contracting Class I	Pool integrity