



# USDA/FSA Dairy Margin Coverage Program

*by*

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WESTERN  
EXTENSION  
RISK  
MANAGEMENT  
EDUCATION



## USDA Milk Price Programs

- **FSA: Dairy Margin Coverage**
  - + replaced Margin Protection Program in 2018 FB
  - + 2018 FB removes restriction on participating in both DMC and RMA's LGM or DRP
  - + National Price of Milk and Feed Costs
- **RMA: Livestock Gross Margin**
  - + like a call option on feed cost & put on milk price
- **RMA: Dairy Revenue Protection**
  - + area-based revenue product
  - + insures against unexpected declines in quarterly revenue milk sales, indexed to pooled region.

# Dairy Margin Coverage (FSA)



United States Department of Agriculture

Farm Service Agency

## Dairy Margin Coverage Program

FACT SHEET  
June 2019

### Overview

The 2018 Farm Bill authorizes the new **Dairy Margin Coverage (DMC) program**, which replaces the Margin Protection Program for Dairy (MPP-Dairy). Much like the MPP-Dairy program, the DMC program is a voluntary program that provides dairy operations with risk management coverage that will pay producers when the difference (the margin) between the national price of milk and the average cost of feed falls below a certain level selected by the program participants.

### Who is Eligible?

All dairy operations in the United States are eligible for the DMC program. An operation can be run either

An eligible dairy operation must:

- have a production history determined by the USDA Farm Service Agency (FSA).
- be registered to participate during a signup announced by FSA.
- pay a \$100 administrative fee annually for each year of participation, except if the dairy operation qualifies for a waiver for limited resource, beginning, socially disadvantaged, or veteran farmers and ranchers.
- select a coverage level ranging from \$4.00 to \$9.50 per hundredweight in \$0.50 increments.
- select a coverage percentage of the dairy operation's production history ranging from 5 percent to 95 percent, in 5 percent increments.

## Basics of DMC

- **Production history (USDA/FSA) and register to participate.**
- **Pay \$100 signup fee.**
- **Select margin coverage level ranging from \$4 to \$9.50/cwt.**
- **Can lock in coverage through 2023.**
- **Select a % of production history to insure (5% to 95%).**

# *DMC Production History*

- **Keep same production history last had if participated in program?**
- **or, highest annual production in 2011, 2012, or 2013.**
- **Once established, production history does not change.**



## *DMC vs former MPP*

**How is the Dairy Margin Coverage (DMC) program different from the Margin Protection Program (MPP)?**

	<b>Dairy Margin Coverage 2019–2023</b>	<b>Margin Protection Program 2014–2018</b>
Maximum coverage limit on Tier I (5 million pounds)	Up to \$9.50	Up to \$8.00
Cost of maximum coverage level	\$0.15 for \$9.50	\$0.14 for \$8.00
Feed cost formula	Accounts for price of dairy-quality alfalfa hay	Underestimated cost of dairy hay
Restrictions against covering milk in program and the LGM or DRP programs?	None	Restricted
Maximum production history coverage	95%	90%
Minimum production history coverage	5%	25%





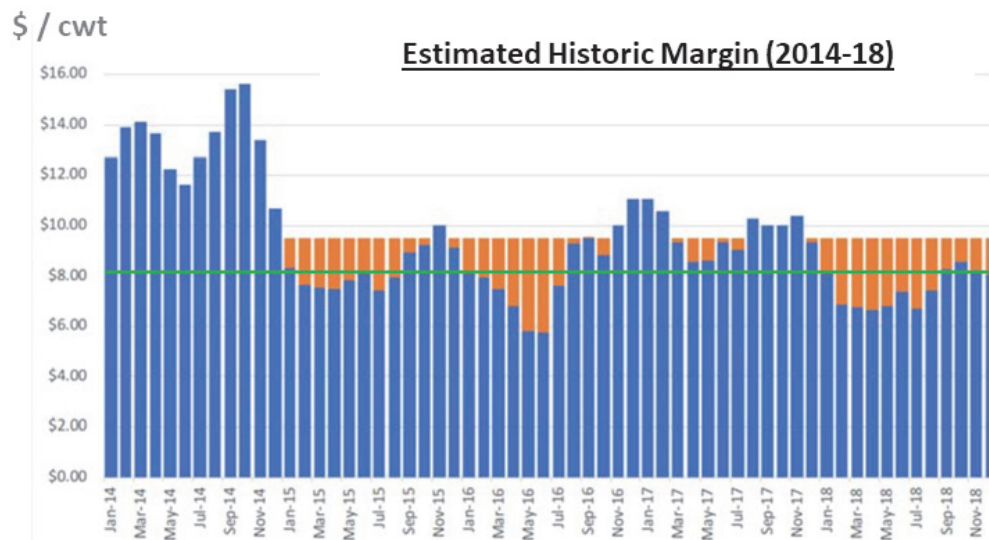
# Formula for Dairy Margin

Margin = U.S. All Milk Price (\$/cwt)

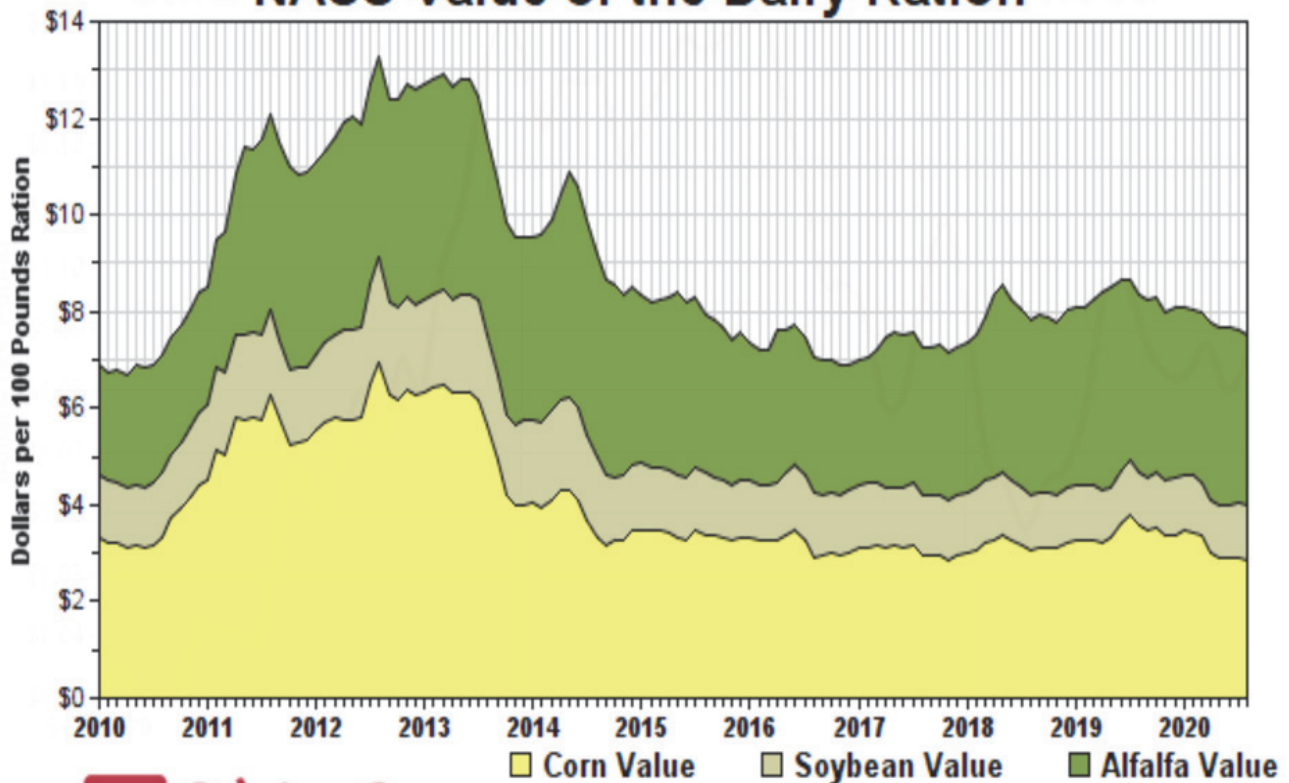
- 1.0728 x NASS Corn Price (\$/bu)

- 0.00735 x AMS Soybean Meal (Central, IL, \$/ton)

- 0.0137 x NASS 5-State Premium Alfalfa Hay (\$/ton)



## NASS Value of the Dairy Ration



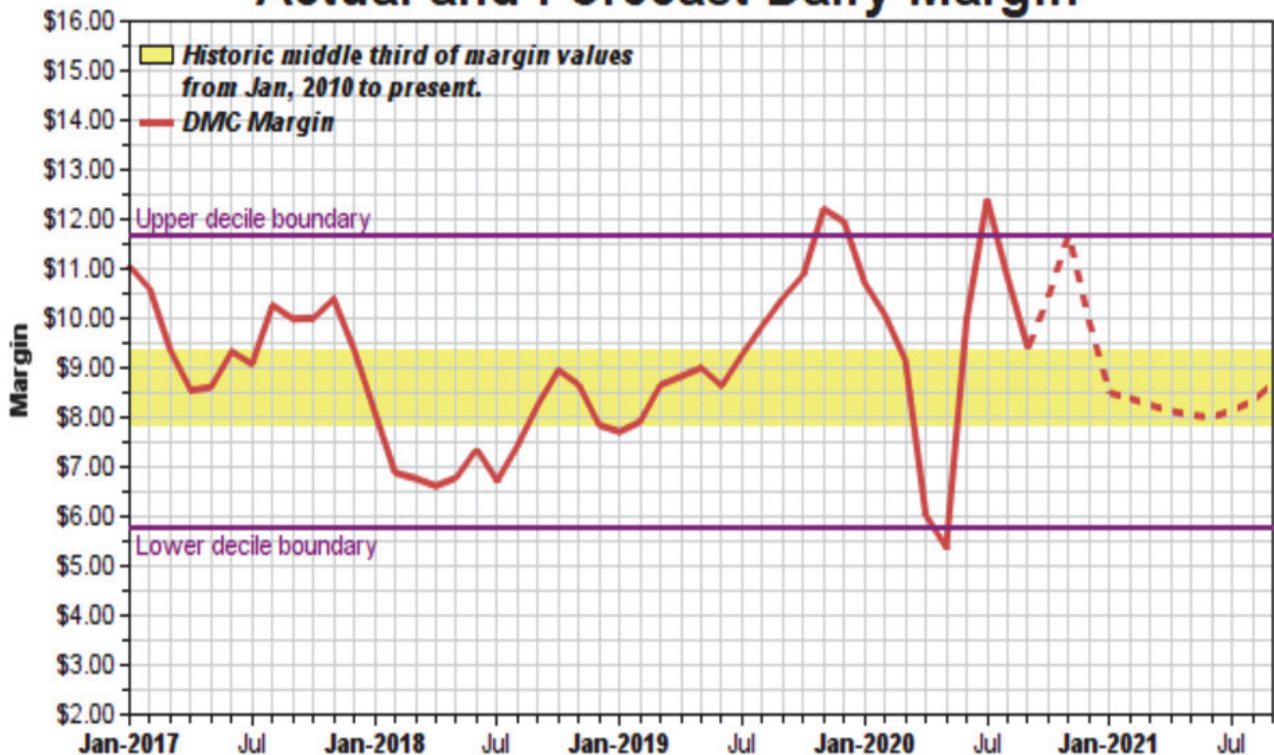
# Monthly Prices for DMC, 2020

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

Payments are possible when the Milk Margin above feed costs is less than **\$9.50/cwt**.



## Actual and Forecast Dairy Margin



# *Schedule of Premiums*

<b>Coverage Level</b> \$/ cwt	<b>Tier 1</b> Premium per cwt for covered production history of 5 mil lbs. or less	<b>Tier 2</b> Premium per cwt, all years for covered production history over 5 mil lbs.
\$4.00	None	None
\$4.50	\$0.0025	\$0.0025
\$5.00	\$0.005	\$0.005
\$5.50	\$0.030	\$0.100
\$6.00	\$0.050	\$0.310
\$6.50	\$0.070	\$0.650
\$7.00	\$0.080	\$1.107
\$7.50	\$0.090	\$1.413
\$8.00	\$0.100	\$1.813
\$8.50	\$0.105	N/A
\$9.00	\$0.110	N/A
\$9.50	\$0.150	N/A



## *DMC Tier Considerations*

- If elect \$8.50/cwt. coverage or more in Tier 1, then may select different coverage level in Tier 2.
- If elect \$8/cwt. coverage or less in Tier 1, must select same coverage level in Tier 2.



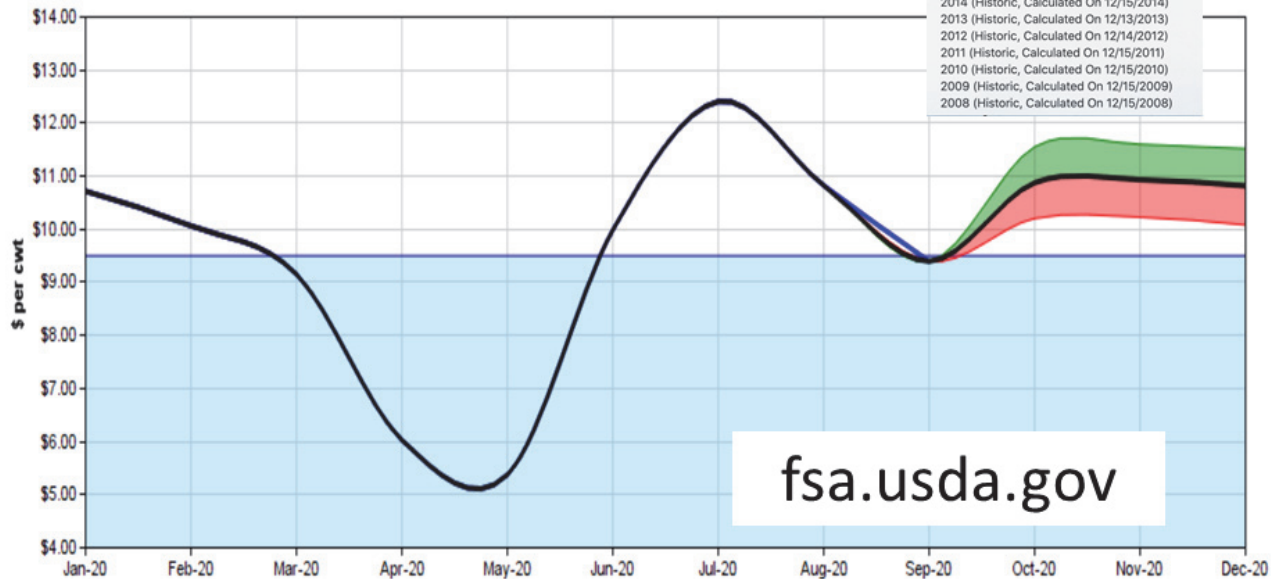


# FSA/DMC Tool: 2020 Actual

Coverage Year: 2019 (Historic, Calculated On 12/27/2019)

Include Actual Margins

- 2020 (Current, Calculated On 11/16/2020)
- ✓ 2019 (Historic, Calculated On 12/27/2019)
- 2017 (Historic, Calculated On 12/15/2017)
- 2016 (Historic, Calculated On 12/15/2016)
- 2015 (Historic, Calculated On 12/15/2015)
- 2014 (Historic, Calculated On 12/15/2014)
- 2013 (Historic, Calculated On 12/13/2013)
- 2012 (Historic, Calculated On 12/14/2012)
- 2011 (Historic, Calculated On 12/15/2011)
- 2010 (Historic, Calculated On 12/15/2010)
- 2009 (Historic, Calculated On 12/15/2009)
- 2008 (Historic, Calculated On 12/15/2008)



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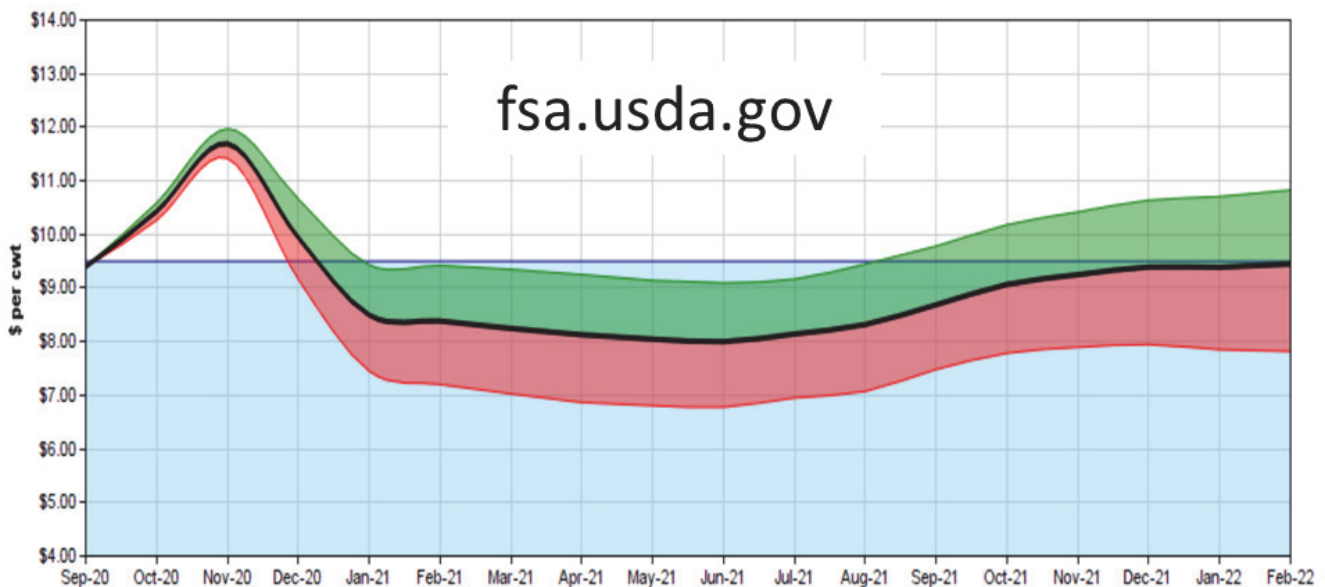
The colored bands show the middle 50% probability interval for forecast margins. There is a 25% chance that the margin could be above the green band and a 25% chance that the margin could be below the red band. The graph data and probabilities are calculated from futures market data available on 12/27/2019.



# FSA/DMC Tool: 2021 Forecast

Coverage Year: 2020 (Current, Calculated On 11/16/2020)

Include Actual Margins



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The colored bands show the middle 50% probability interval for forecast margins. There is a 25% chance that the margin could be above the green band and a 25% chance that the margin could be below the red band. The graph data and probabilities are calculated from futures market data available on 11/16/2020.



# Dairy Margin Coverage Tool:

## [dairymarkets.org/dmc/](http://dairymarkets.org/dmc/)

### DMC Coverage Selection

Up to 5 million  
pounds/yr.

1,000 cow dairy with avg. milk  
production of 24,000 lbs/year.

Annual Historic Production:  ?

Coverage Percentage:

Covered Annual Production: 22,800,000 lbs

Tier 1: 5,000,000 lbs

Tier 2: 17,800,000 lbs

Annual Premium & Fee: \$330,314.00

Average Premium per cwt: \$1.4483

Coverage Level	Tier 1		Tier 2	
	Choice	Premium	Choice	Premium
\$9.50	<input checked="" type="radio"/> \$0.1500	\$7,500.00	<input type="radio"/> na	na
\$9.00	<input type="radio"/> \$0.1100	\$5,500.00	<input type="radio"/> na	na
\$8.50	<input type="radio"/> \$0.1050	\$5,250.00	<input type="radio"/> na	na
\$8.00	<input type="radio"/> \$0.1000	\$5,000.00	<input checked="" type="radio"/> \$1.8130	\$322,714.
\$7.50	<input type="radio"/> \$0.0900	\$4,500.00	<input type="radio"/> \$1.4130	\$251,514.
\$7.00	<input type="radio"/> \$0.0800	\$4,000.00	<input type="radio"/> \$1.1070	\$197,046.
\$6.50	<input type="radio"/> \$0.0700	\$3,500.00	<input type="radio"/> \$0.6500	\$115,700.
\$6.00	<input type="radio"/> \$0.0500	\$2,500.00	<input type="radio"/> \$0.3100	\$55,180.0
\$5.50	<input type="radio"/> \$0.0300	\$1,500.00	<input type="radio"/> \$0.1000	\$17,800.0
\$5.00	<input type="radio"/> \$0.0050	\$250.00	<input type="radio"/> \$0.0050	\$890.00
\$4.50	<input type="radio"/> \$0.0025	\$125.00	<input type="radio"/> \$0.0025	\$445.00
\$4.00	<input type="radio"/> \$0.0000	\$0.00	<input type="radio"/> \$0.0000	\$0.00



## Historical Return with max margins selected on Tier 1 & 2

### DMC Historic Analysis

Start Year\*

End Year

Total number of months: 129

Number of months with payout: 92

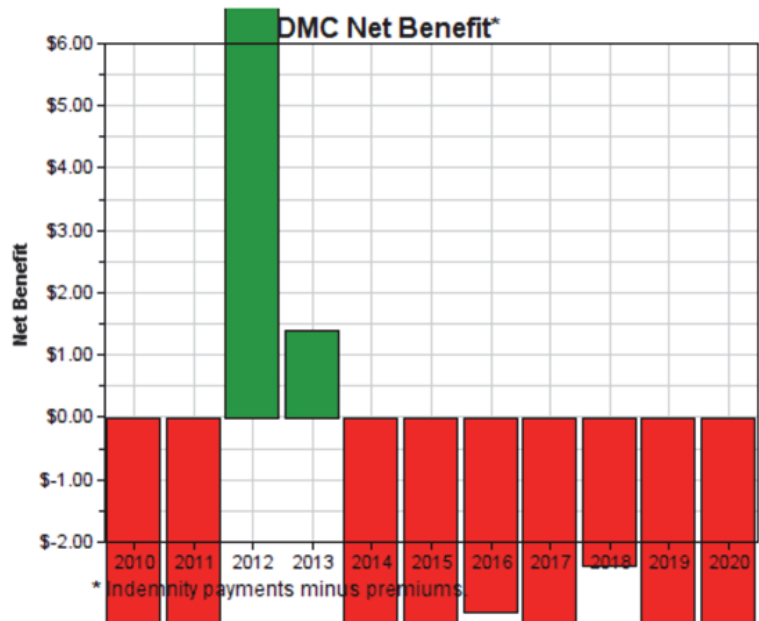
Average DMC premium per cwt: \$1.448

Average payment per cwt: \$0.76

Max payment per cwt: \$5.66

Average net indemnity per cwt: \$0.69

Cumulative net indemnity: \$1,724,798



\* Indemnity payments minus premiums

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





# Dairy Margin Coverage Tool:

## [dairymarkets.org/dmc/](http://dairymarkets.org/dmc/)

### DMC Coverage Selection

Up to 5 million  
pounds/yr.

1,000 cow dairy with avg. milk  
production of 24,000 lbs/year.

Annual Historic Production:  ?

Coverage Percentage:

Covered Annual Production: 22,800,000 lbs

Tier 1: 5,000,000 lbs

Tier 2: 17,800,000 lbs

Annual Premium & Fee: \$7,600.00

Average Premium per cwt: \$0.0329

Coverage Level	Tier 1		Tier 2	
	Choice	Premium	Choice	Premium
\$9.50	<input checked="" type="radio"/> \$0.1500	\$7,500.00	<input type="radio"/> na	na
\$9.00	<input type="radio"/> \$0.1100	\$5,500.00	<input type="radio"/> na	na
\$8.50	<input type="radio"/> \$0.1050	\$5,250.00	<input type="radio"/> na	na
\$8.00	<input type="radio"/> \$0.1000	\$5,000.00	<input type="radio"/> \$1.8130	\$322,714.00
\$7.50	<input type="radio"/> \$0.0900	\$4,500.00	<input type="radio"/> \$1.4130	\$251,514.00
\$7.00	<input type="radio"/> \$0.0800	\$4,000.00	<input type="radio"/> \$1.1070	\$197,046.00
\$6.50	<input type="radio"/> \$0.0700	\$3,500.00	<input type="radio"/> \$0.6500	\$115,700.00
\$6.00	<input type="radio"/> \$0.0500	\$2,500.00	<input type="radio"/> \$0.3100	\$55,180.00
\$5.50	<input type="radio"/> \$0.0300	\$1,500.00	<input type="radio"/> \$0.1000	\$17,800.00
\$5.00	<input type="radio"/> \$0.0050	\$250.00	<input type="radio"/> \$0.0050	\$890.00
\$4.50	<input type="radio"/> \$0.0025	\$125.00	<input type="radio"/> \$0.0025	\$445.00
\$4.00	<input type="radio"/> \$0.0000	\$0.00	<input checked="" type="radio"/> \$0.0000	\$0.00

## Historical Return with max margin on just Tier 1 (50,000 cwt)

### DMC Historic Analysis

Start Year\*  End Year

Total number of months: 129

Number of months with payout: 92

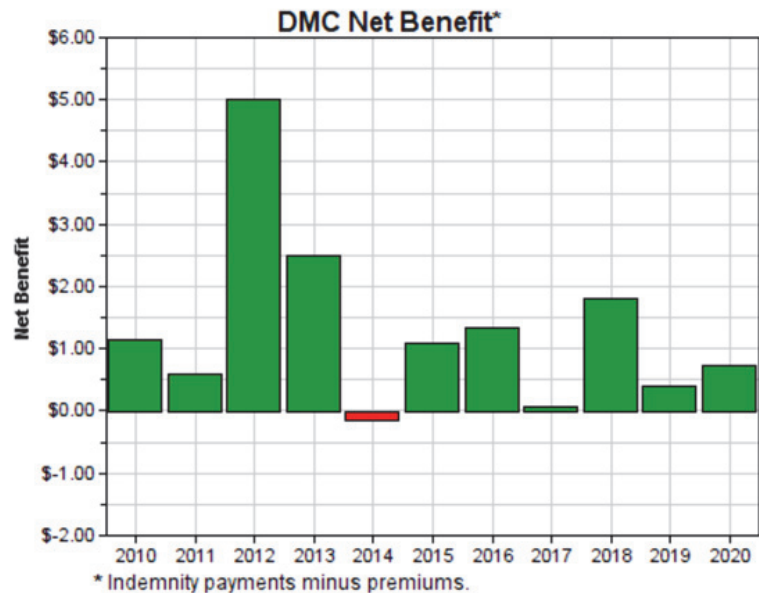
Average DMC premium per cwt: \$0.033

Average payment per cwt: \$0.32

Max payment per cwt: \$2.54

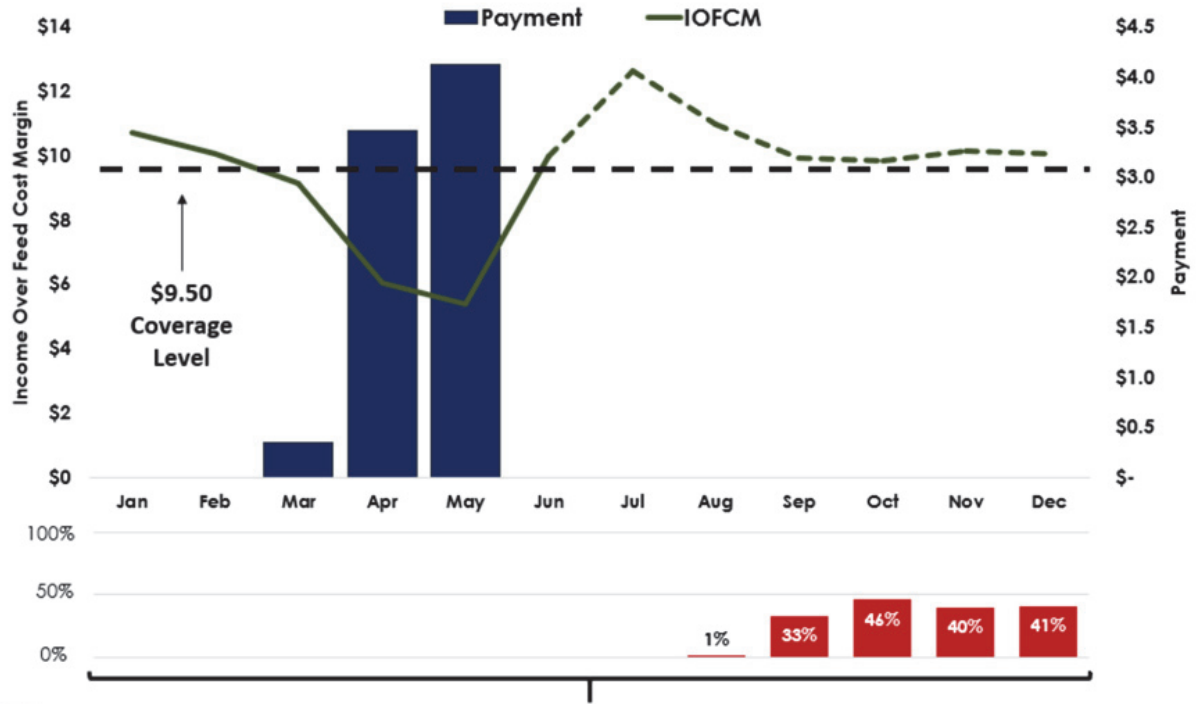
Average net indemnity per cwt: \$0.29

Cumulative net indemnity: \$726,546



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

# Income-Over-Feed-Cost & Pmt

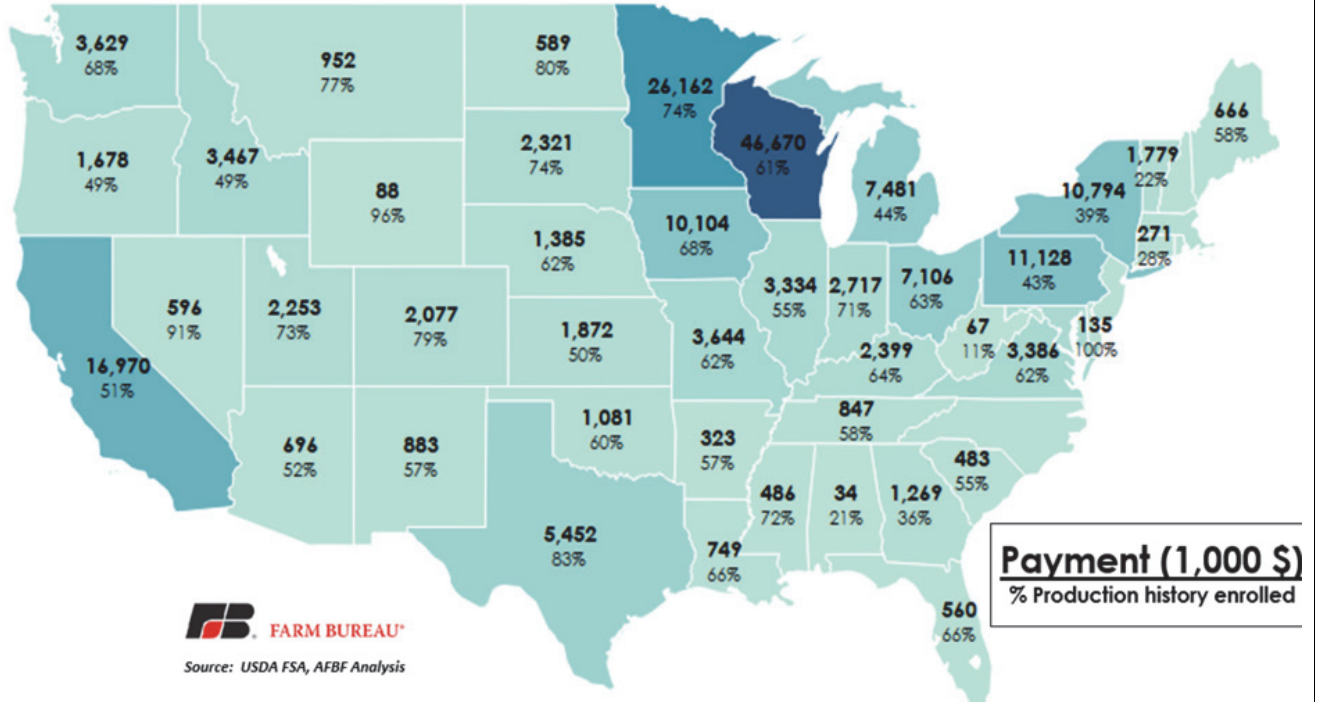


Source: USDA FSA, Farm Bureau Analysis  
Data from Aug 7

Probability of Forecast Margin Below \$9.50

## 2020 DMC Participation (56.64%)

DMC Payments for 2020 through July 2020

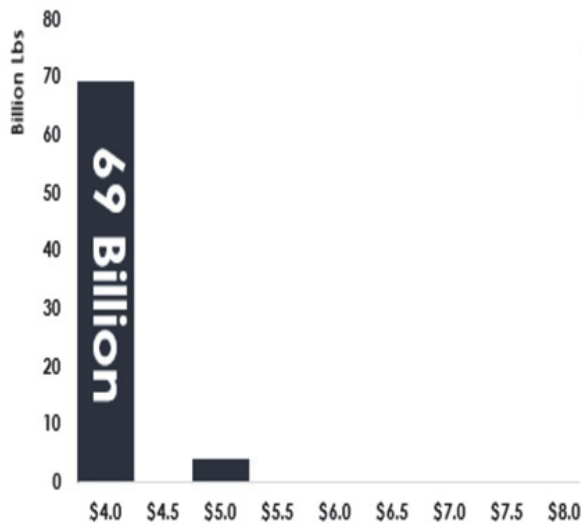


Source: USDA FSA, AFBF Analysis

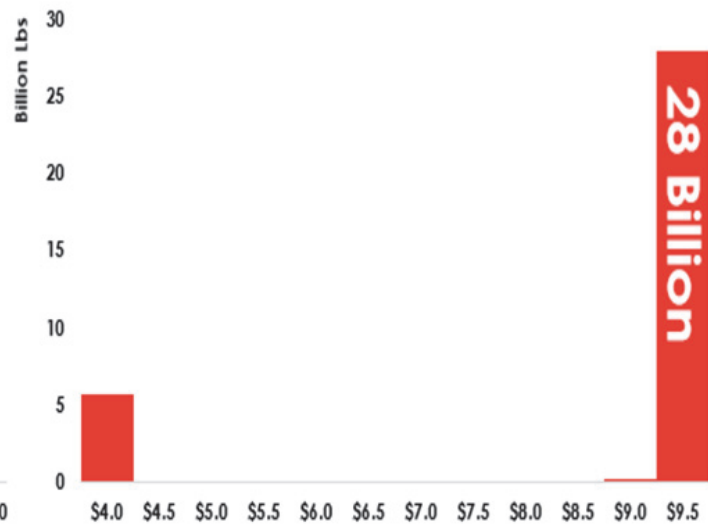
Payment (1,000 \$)  
% Production history enrolled

# 2020 Production Covered by DMC

## Tier II Covered Production History



## Tier I Covered Production History



Source: USDA

Note: Covered production is production history incorporating percentage coverage selected  
Data as of January 6

# 2020 DMC enrolled by select states

2020 Dairy Margin Coverage Program  
Enrollment Report by State - November 16, 2020 - 7:00 AM

State/Territory Name	Licensed Dairy Operations (NASS Data: 2018)	Dairy Operations with Established Production History (2020 DMC)	DMC Dairy Operations Enrolled (#)	DMC Dairy Operations Enrolled (%)	2019 DMC Enrolled Production History (pounds)	2020 DMC Established Production History (pounds)	2020 DMC Production History Enrolled (pounds)	2020 DMC Production History Enrolled (%)	Estimated DMC Payments for Disbursement * (\$)
Alabama	30	34	12	35.29%	76,077,736	98,102,618	20,907,188	21.31%	\$33,969
Alaska	1	2	1	50.00%	2,050,168	3,295,333	2,050,168	62.21%	\$13,065
Arizona	100	88	42	47.73%	3,929,721,282	4,989,683,348	2,586,472,370	51.84%	\$704,361
Arkansas	50	59	27	45.76%	82,218,833	113,735,858	64,031,557	56.30%	\$327,113
California	1,335	1,419	653	46.02%	39,092,836,694	47,785,077,769	23,975,667,613	50.17%	\$17,639,323
Colorado	120	105	82	78.10%	3,483,834,627	3,961,447,554	3,132,888,055	79.08%	\$2,102,744
Connecticut	110	95	20	21.05%	342,684,317	442,855,827	120,808,163	27.28%	\$274,882
Delaware	25	12	13	108.33%	72,178,153	56,658,460	57,551,445	101.58%	\$136,956
Florida	95	72	39	54.17%	1,922,720,584	2,263,014,947	1,493,750,532	66.01%	\$567,153
Georgia	160	218	65	29.82%	1,265,433,049	1,775,920,770	647,963,807	36.49%	\$1,285,172
Hawaii	2	1				19,848,683			
Idaho	480	387	210	54.26%	13,661,067,850	17,149,659,342	7,957,120,745	46.40%	\$3,544,542
Texas	400	387	271	70.03%	10,367,164,801	13,508,403,886	11,272,070,661	83.44%	\$5,520,256
Utah	180	179	123	68.72%	1,886,545,172	2,274,842,014	1,663,526,783	73.13%	\$2,280,933
Vermont	730	676	128	18.93%	2,355,222,368	2,580,884,769	574,521,244	22.26%	\$1,801,558
Virginia	565	337	191	56.68%	1,274,724,876	1,358,566,900	845,723,734	62.25%	\$3,428,018
Washington	410	318	203	63.84%	5,514,003,543	6,460,974,342	4,428,370,621	68.54%	\$3,675,327
West Virginia	75	52	6	11.54%	80,582,369	105,196,210	11,188,272	10.64%	\$67,782
Wisconsin	8,500	6,280	3,298	52.52%	25,224,210,349	27,638,234,627	17,012,742,046	61.56%	\$47,515,992
Wyoming	10	8	4	50.00%	119,666,206	116,927,957	112,317,730	96.06%	\$89,201
<b>Totals</b>	<b>37,468</b>	<b>26,266</b>	<b>13,486</b>	<b>51.34%</b>	<b>181,844,597,480</b>	<b>216,218,236,777</b>	<b>122,463,346,001</b>	<b>56.64%</b>	<b>\$199,410,646</b>

**US overall (56.64%)**



# 2021 DMC prod. enrolled through 11/16/20, selected states (18.43%)

2021 Dairy Margin Coverage Program Enrollment Report by State - November 16, 2020 - 7:00 AM							
State/Territory Name	Licensed Dairy Operations (NASS Data: 2018)	Dairy Operations with Established Production History (2020 DMC)	DMC Dairy Operations Enrolled (#)	DMC Dairy Operations Enrolled (%)	2020 DMC Enrolled Production History (pounds)	2021 DMC Established Production History (pounds)	2021 DMC Production History Enrolled (%)
Alabama	30	34	2	5.88%	20,907,188	98,102,618	3.49%
Alaska	1	2	1	50.00%	2,050,168	3,295,333	62.21%
Arizona	100	88	3	3.41%	2,586,472,370	4,989,683,348	6.76%
Arkansas	50	58	11	18.97%	64,031,557	112,269,827	19.67%
California	1,335	1,300	255	19.62%	23,975,667,613	43,076,824,187	23.25%
Colorado	120	100	25	25.00%	3,132,888,055	3,686,941,040	25.95%
Connecticut	110	85	4	4.71%	120,808,163	366,474,714	4.33%
Delaware	25	12	5	41.67%	57,551,445	56,658,460	22.94%
Florida	95	72	6	8.33%	1,493,750,532	2,263,014,947	19.29%
Georgia	160	215	27	12.56%	647,963,807	1,714,036,764	22.54%
Hawaii	2	1				19,848,683	
Idaho	480	350	40	11.43%	7,957,120,745	14,534,573,677	10.51%
Texas	400	367	44	11.99%	11,272,070,661	12,844,173,638	3.98%
Utah	180	167	30	17.96%	1,663,526,783	2,150,062,213	10.75%
Vermont	730	656	59	8.99%	574,521,244	2,523,983,730	10.89%
Virginia	565	331	78	23.56%	845,723,734	1,327,316,112	25.39%
Washington	410	303	62	20.46%	4,428,370,621	6,267,599,447	15.54%
West Virginia	75	51	3	5.88%	11,188,272	104,487,175	5.28%
Wisconsin	8,500	5,904	1,482	25.10%	17,012,742,046	25,200,685,337	30.76%
Wyoming	10	8	1	12.50%	112,317,730	116,927,957	76.01%

## Decisions to Make

- **Participate with DMC? Number of years – 2023, 25% Discount**
- **Select combinations of DMC, LGM, and DRP (DMC – with LGM or DRP on same milk).**
- **Can not have LGM and DRP on the same milk.**

