United States Department of Agriculture
Before The Secretary of Agriculture

In re: [Docket No. 23-J-0067; AMS-DA-23-0031]
Milk in the Northeast and Other Marketing Areas

Hearing beginning August 23, 2023

Testimony Presented By:

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Subject: Class I and II Differentials

My name is Edward Gallagher. I appear today on behalf of Dairy Farmers of America (DFA) and the National Milk Producers Federation (NMPF) in support of their proposal number 19 – to modernize the Class I differential and producer pricing surface in all Federal orders.

Dairy Farmers of America is a global dairy industry leader and the largest US dairy cooperative, largest US milk business, and largest US fluid Class I processor. Exhibit NMPF - 4A provides a series of facts about DFA.

I am the President of DFA Risk Management, a business unit of Dairy Farmers of America. As president of DFA Risk Management, I lead the DFA business unit that offers price risk management programs to members, DFA-owned plants and business units and their customers. My team and I offer the dairy industry's leading milk price forward contracting program to our farmer-owners. Additionally, I am responsible for DFA's Federal Dairy Revenue Protection and other crop insurance programs. I also lead DFA's Federal Order policy initiatives and have done so since January 2022.

I have worked in the dairy industry my whole life, having been raised on my family's dairy farm in central New York. I spent 13 years at the Northeast Milk Market Administrators office as an Economist and their Chief of Market Analysis, Research, and Information, and joined Dairylea Cooperative Inc. (Dairylea) in 1996 where I led them through the Federal Order Reform process in the late 1990s and later, I served in a variety of senior management roles for Dairylea. I have been in my present role leading DFA's risk management program since 2010.

I am a frequent industry speaker imparting my knowledge of milk pricing, risk management and the dairy industry. I am a member of the National Milk Producers Federation board of directors. I serve on the Commodity Futures Trading Commission's Agricultural Advisory Committee, the Risk Management Committee for the National Council of Farmer Cooperatives, the National Milk Producers Federation Cheese Pricing Task Force and its Federal Order Task Force, and the New York Commissioner of Agriculture's Milk Marketing Advisory Council, among other activities. I have testified before the US House

and Senate Agriculture Committees on milk pricing and risk management issues and have been an expert witness at a variety of milk pricing regulatory and legal matters. I hold a Bachelor of Science degree in Agricultural Economics and Farm Business Management from Cornell University and a Master of Science degree in Agricultural Economics from The Ohio State University.

I appear here today to explain the importance of implementing a price surface in Colorado that differs from the results of the University of Wisconsin's model analysis of a national pricing surface. The model's results would unfairly and harmfully impact Colorado dairy farmer milk prices. The model results show little change, and in some cases declines, from their existing levels, while other areas in the US that have less Class I demand and significant cheese manufacturing activity see significantly increased price surfaces and improvements in pay prices to dairy farmers in those states. Steve Stout has previously testified to the marketplace dynamics in and around Colorado that were not part of the model's input and would suggest that the model has underpriced the appropriate price surface in Colorado.

Additionally, we are on record to strongly object to changes in pricing formulas emanating from this hearing that would structurally decrease milk prices by any significant amount. We have previously testified that an increase in make allowances that result in a decrease in milk prices by $1.45 per cwt would significantly reduce farm profit margins – if not wipe them out completely – leading to a potential disorderly marketing issue relative to an adequate supply of milk.

In the case of Colorado, DFA and NMPF have proposed make allowance increases that would decrease raw milk prices by about $.50 per cwt. The pricing surface model, in areas around the US would generally result in at least modest milk price increases. However, in Colorado, the model's price surface results, if implemented without adjustment to its output, would reduce Colorado milk prices by close to $.40 per hundredweight – in addition to the decrease resulting from the increase in make allowances. A decrease in Colorado milk prices amounting to almost $1 per hundredweight would severely impact the state's milk production. Dr. Stephen Koontz of Colorado State University has testified about the milk production cost structure in Colorado and how it is different and higher (more costly) than similarly situated states and that this cost structure is not expected to shift downward. Additionally, supplementing his testimony, the JD Heiskell witness has provided expert testimony of the increased costs of bringing feed into the state.

The following table – Comparison of Class I Differentials at Selected Locations in Colorado and Missouri - provides important factors utilized in determining the NMPF Class I differential and pricing surface. The model's output suggests lowering the differential in Denver County, CO and Weld County, CO and modestly increased the differential in Morgan County, CO.

Comparison of Class I Differentials at Selected Locations in Colorado and Missouri

County/State	Current Differential	Wisconsin Model's Output May-22	Wisconsin Model's Output Oct-22	NMPF Proposed
Jackson, MO	$2.00	$3.20	$3.50	$3.35
Denver, CO	$2.55	$2.50	$2.50	$3.30
Morgan, CO	$2.35	$2.40	$2.40	$3.10
Weld, CO	$2.45	$2.30	$2.40	$3.20

As can be seen, the Colorado locations currently have differentials that are higher than Jackson County, MO, the announced pricing zone. This results in blend prices in Colorado that exceed the base zone. The University of Wisconsin model's results, unadjusted, would result in a significant increase in Jackson County, MO location values relative to Colorado locations. For Denver, instead of being $.55 per hundredweight higher than Jackson, it would be $.70 to $1.00 per hundredweight lower – a decrease in location value of $1.25 to $1.55 per hundredweight – prior to any adjustment for, on average, higher Class I prices throughout the Central order. There would be similar declines for values in Morgan and Weld counties. These changes to the blend prices at Colorado locations would be untenable and would cause significant harm to profitability of all Colorado dairy farmers. With all respect to the University of Wisconsin researchers, we suggest that the model's output values for Colorado are – perhaps - mathematically correct based on the data used by the model, but not realistic relative to the Colorado marketplace and the increases in production seen there caused by demand from cheese, yogurt, and other manufacturers. Additionally, it would be wholly inappropriate and unfair to burden Colorado dairy farmers with such a steep decline in blend prices on top of the declines they will face from the implementation of a make allowance increase.

NMPF's proposal includes adjusted model results for Colorado. As can be seen in the chart, we have suggested a significant value decrease in the differential value when compared to Jackson County, MO. For all Colorado locations, the proposed differential values are lower than, instead of higher than, the existing differences. Our proposal would suggest that Denver be, instead of $.55 higher, $.05 lower – a loss of $.60 per hundredweight in value. As discussed in Steve Stout's expert testimony, the NMPF proposal keeps the same price differences between the Colorado plants, due to the unique marketing situation and relationships in the Colorado marketplace.

Based on some "mock pool" information shared by USDA with DFA prior to the announcement of the hearing, incorporating the University of Wisconsin model's results, unadjusted and using the average of May and October values as the differentials, the blend prices at the Colorado locations were estimated to be about $.40 per cwt lower than currently being received.

USDA Exhibit 46 was developed by USDA at the request of NMPF. It recalculates the blend price for each Federal Order at each Order's blend price announcement zone and using the proposed NMPF Class I differentials for the months of May and October 2022. It takes into account higher Class I differentials, and a changed pricing surface at plants receiving pool milk. No other changes were made – meaning no change in make allowances, etc. It is a point in time analysis that can be used to identify blend price changes due to the NMPF proposal 19 at each milk plant receiving that order's pool milk.

The following chart – Estimated Changes in Producer Price Differential Prices at Selected Colorado and Kansas Locations Using the NMPF Class I Differential and Price Surface Proposal – uses the Central order information from USDA Exhibit 46 and adjusts those prices to the selected plant locations. It compares the actual producer price differentials (PPD) at the locations for May and October 2022 and those based on the mock pools reported in USDA Exhibit 46 for the NMPF Class I differential and pricing surface proposal. The determination and announcement of a Federal Order's statistical uniform price at standard component tests is the addition of the PPD to the Class III price, also at standard tests. By reviewing the PPD changes only, this will result in the same analysis as reviewing the changes in blend prices.

The chart shows the Jackson County, MO values – identified as Kansas City PPD. The Kansas City PPD was $.01 per hundredweight in May 2022 and $.98 per hundredweight in October 2022. Using the NMPF proposal, USDA's mock pools resulted in a May 2022 PPD of $.74 per hundredweight and an October 2022 value of $1.68 per hundredweight, increases of $.73 and $.70 per hundredweight, respectively. Using current and proposed price surface differences from Kansas City, the chart shows the current PPDs at selected locations and the NMPF's proposals changes to those values.

For instance, for May 2022, the Denver zone, with its current $.55 positive zone adjustment from Kansas City, had a PPD of $.56 per hundredweight. Using the NMPF proposal, which has Denver at a $.05 per hundredweight lower zone, the Denver PPD would be $.69 per hundredweight, a modest $.13 per hundredweight improvement from its current level. The changes for the other selected locations in Colorado have similar increases.

Estimated Changes in Producer Price Differential Prices at Selected Colorado and Kansas Locations using the NMPF Class I Differential and Price Surface Proposal

	May 2022			October 2022		
	Current	NMPF Proposal	Change	Current	NMPF Proposal	Change
Kansas City PPD	$0.01	$0.74	$0.73	$0.98	$1.68	$0.70
Denver Zone Adjustment	$0.55	($0.05)	($0.60)	$0.55	($0.05)	($0.60)
Denver Zone PPD	$0.56	$0.69	$0.13	$1.53	$1.63	$0.10
Kansas City PPD	$0.01	$0.74	$0.73	$0.98	$1.68	$0.70
Weld County Zone Adjustment	$0.45	($0.15)	($0.60)	$0.45	($0.15)	($0.60)
Weld County PPD	$0.46	$0.59	$0.13	$1.43	$1.53	$0.10
Kansas City PPD	$0.01	$0.74	$0.73	$0.98	$1.68	$0.70
Morgan County Zone Adjustment	$0.35	($0.25)	($0.60)	$0.35	($0.25)	($0.60)
Morgan County PPD	$0.36	$0.49	$0.13	$1.33	$1.43	$0.10
Kansas City PPD	$0.01	$0.74	$0.73	$0.98	$1.68	$0.70
Finney County, KS Zone Adjustment	$0.20	($0.35)	($0.55)	$0.20	($0.35)	($0.55)
Finney County PPD	$0.21	$0.39	$0.18	$1.18	$1.33	$0.15

NMPF strongly urges USDA to adopt the proposed Class I differential and price surface in our Proposal 19. For Colorado, the divergence from the model's result is modest and is needed to maintain blend price equity relative to current Colorado PPD and blend price levels. Expecting other changes from this

proceeding, including increases in make allowances, Colorado dairy farmers will sustain a net reduced milk price, despite the modest improvement in their prices from the NMPF Class I differential and price surface proposal.

The following table – Comparison of Differential in Selected Dairy Manufacturing Counties – identifies current and NMPF proposed differential values in selected states and in selected counties with cheese plants. It compares the NMPF proposed changes in the pricing surface in areas that are heavy cheese manufacturing states. I provide this comparison as evidence that the proposed Colorado values at its major dairy manufacturing locations is in line with the proposed changes at other similarly situated manufacturing areas in other states and that the increases at the Colorado plants is less than the increases in the other locations. However, it also shows that Colorado's estimated state Class I percentage continues to be significantly higher than similar calculations for South Dakota, Wisconsin and Minnesota – in fact, up to seven times the percentage as shown in the last column (see Appendix 1 for information about the calculation of state level Class I percent). Steve Stout's testimony provides compelling evidence that the Colorado milk supply increased over the last 20 years to meet the growing needs of manufacturing plants filling national and international demand for cheese, yogurt and other products. It also shows that there is less milk available to supply Class I plants than existed 20 plus years ago. That point shows that the calculation of the 14% in-state Class I utilization belies the facts that despite the growth in Colorado milk production, milk available to Class I markets continues to be constrained as it was in the year 2000.

Comparison of Differentials in Selected Dairy Manufacturing Counties

County/State	Current Differential	NMPF Proposed Differential	Change	Estimate State Level Class I Percent 2000	2022
Morgan, CO	$2.35	$3.10	$0.75	44%	14%
Weld, CO	$2.45	$3.20	$0.75	44%	14%
Grant, SD	$1.80	$2.80	$1.00	10%	3%
Hamlin, SD	$1.70	$2.80	$1.10	10%	3%
Melrose, MN	$1.70	$3.00	$1.30	10%	7%
Perham, MN	$1.65	$2.80	$1.15	10%	7%
Waupaca, WI	$1.75	$3.00	$1.25	5%	2%
Columbia, CO	$1.75	$3.00	$1.25	5%	2%
Finney, KS	$2.20	$3.00	$0.80	34%	9%

The table above provides additional evidence that the pricing surface NMPF proposes for Colorado is appropriate. It does not excessively increase the values, and makes measured use of non-model dynamics:

- to resolve PPD/blend price equity issues for Colorado in relation to other areas of the Central Federal order,
- to provide similar increases relative to other competing manufacturing areas,
- to substantiate that Colorado's Class I use of its in-state milk is 2 to 7 times higher than the other states shown, and,

- to recognize that Colorado has a much tighter milk supply available to Class I plants than exists in the other states shown in the comparison.

To maintain an appropriate alignment with western Kansas and the Colorado manufacturing plants and the Kansas City PPD/blend price announcement zone, NMPF proposes an $.80 per hundredweight increase for Finney County, KS from $2.20 per hundredweight to $3.00 per hundredweight. Like Colorado, its zone is currently higher (by $.20 per hundredweight) than the Kansas City zone and the NMPF proposal changes that relationship by reducing the differential between Finney County and Kansas City by $.55 per hundredweight (from $.20 over to $.35 under). The University of Wisconsin model's results showed an output value of $2.50 per hundredweight for May 2022 and $2.60 per hundredweight for October 2022. Different from Colorado, the model estimated an increase in value for Finney County, KS. In an effort to maintain blend price equity and equity between dairy manufacturing regions in nearby states, NMPF proposes Finney County to have a $3.00 per hundredweight price surface. This value will modestly increase PPD/Blend price values by $.15 to $.18 per hundredweight and provide a modest offset to the negative blend price impacts of adopting higher make allowances.

Thank you for allowing me to testify today. I am available for questions.

Appendix 1

DFA estimated the Class I demand for each state and compared it to the milk production in each state. We did this by dividing an estimate of the state's Class I beverage demand by the state's milk production to get a statistic we are calling Beverage Demand in Comparison to Milk Production. Our intent was to provide a comparative statistic to reveal changes between years 2000 and 2022. We used it as a proxy to see how the percentage of beverage demand in a state has changed relative to milk production.

We did not have data available about each state's Class I beverage demand and, as a proxy, we used USDA and U.S. Census Bureau data for the years 2000 and 2022. USDA's Estimated Fluid Milk Sales report was utilized to estimate fluid milk consumption. United States per capita consumption of fluid milk averaged approximately 197 pounds in the year 2000. By the year 2022, this value decreased 67 pounds to approximately 130 pounds per person. These figures were calculated by dividing the sum of the monthly Total Fluid Milk Products from the USDA AMS's Estimated Fluid Milk Sales page by the sum of U.S. Census Bureau Resident Population for each U.S. state and Washington D.C. for the years 2000 and 2022.[1][2]

We recognized that this will not fully capture the precise changes, but for our purpose is adequate. We multiplied the per capita milk beverage demand by the state's population in each year. This became our proxy for total Class I beverage demand for each year. We then divided that value by the state's milk production. The data and values are shown for 2000 in Appendix 1a and for 2022 for Appendix 1b.

This data has been previously used in our Northeast US testimony in support of NMPF Proposal 19 to show the growing milk desert in some of the eastern seaboard states. For instance, it shows that New Jersey and Rhode Island are the 2nd and 3rd most milk deficit regions and have gotten significantly more milk deficit over the last 22 years.

[1] Estimated Fluid Milk Sales, previous releases 2022-12 and 2000-12 https://mymarketnews.ams.usda.gov/viewReport/3358; retrieved May 18, 2023

[2] U.S. Census Bureau, Resident Population for each state, retrieved from FRED, Federal Reserve Bank of St Louis https://fred.stlouisfed.org/; retrieved May 18, 2023

Appendix 1a

2000					
State	Population (thousands)	Per capita milk beverage demand (pounds per person)	Total milk beverage demand (millions of pounds)	Milk production (millions of pounds)	Beverage demand compared to milk production (%)
Alaska	628	197	124	13	950%
Rhode Island	1,050	197	207	28	738%
New Jersey	8,431	197	1,658	244	680%
Massachusetts	6,361	197	1,251	376	333%
Alabama	4,452	197	876	348	252%
South Carolina	4,024	197	791	370	214%
Hawaii	1,214	197	239	116	206%
Connecticut	3,412	197	671	480	140%
West Virginia	1,807	197	355	265	134%
North Carolina	8,082	197	1,589	1,189	134%
Florida	16,048	197	3,156	2,463	128%
Wyoming	494	197	97	76	128%
Louisiana	4,472	197	880	698	126%
Illinois	12,434	197	2,446	2,094	117%
Georgia	8,227	197	1,618	1,433	113%
Arkansas	2,679	197	527	485	109%
Delaware	786	197	155	146	106%
Mississippi	2,848	197	560	541	104%
Nevada	2,019	197	397	476	83%
Tennessee	5,704	197	1,122	1,405	80%
New Hampshire	1,240	197	244	312	78%
Maryland	5,311	197	1,045	1,351	77%
Virginia	7,106	197	1,398	1,900	74%
Texas	20,944	197	4,119	5,743	72%
Montana	904	197	178	338	53%
Oklahoma	3,454	197	679	1,314	52%
Ohio	11,364	197	2,235	4,461	50%
Indiana	6,092	197	1,198	2,419	50%
Missouri	5,607	197	1,103	2,258	49%
Kentucky	4,049	197	796	1,695	47%
Colorado	4,327	197	851	1,924	44%
Oregon	3,430	197	675	1,640	41%
Maine	1,277	197	251	668	38%
Kansas	2,694	197	530	1,540	34%
Michigan	9,952	197	1,957	5,705	34%
Arizona	5,161	197	1,015	3,033	33%
New York	19,002	197	3,737	11,921	31%
Nebraska	1,714	197	337	1,255	27%
Utah	2,245	197	441	1,687	26%
Pennsylvania	12,284	197	2,416	11,156	22%
Washington	5,911	197	1,162	5,593	21%
California	33,988	197	6,685	32,245	21%
North Dakota	642	197	126	686	18%
Iowa	2,929	197	576	3,934	15%
Minnesota	4,934	197	970	9,493	10%
South Dakota	756	197	149	1,474	10%
New Mexico	1,821	197	358	5,236	7%
Wisconsin	5,374	197	1,057	23,259	5%
Vermont	610	197	120	2,683	4%
Idaho	1,299	197	256	7,223	4%
Washington D.C.	572	197	113		n/a

Appendix 1b

2022					
State	Population (thousands)	Per capita milk beverage demand (pounds per person)	Total milk beverage demand (millions of pounds)	Milk production (millions of pounds)	Beverage demand compared to milk production (%)
Alabama	5,074	130	659	32	2059%
Rhode Island	1,094	130	142	10	1420%
New Jersey	9,262	130	1,202	87	1382%
Arkansas	3,046	130	395	45	879%
Louisiana	4,590	130	596	112	532%
Massachusetts	6,982	130	906	188	482%
South Carolina	5,283	130	686	161	426%
Mississippi	2,940	130	382	90	424%
West Virginia	1,775	130	230	75	307%
Delaware	1,018	130	132	48	275%
Tennessee	7,051	130	915	494	185%
North Carolina	10,699	130	1,389	912	152%
Florida	22,245	130	2,888	1,933	149%
Connecticut	3,626	130	471	430	109%
Illinois	12,582	130	1,633	1,714	95%
Maryland	6,165	130	800	842	95%
Missouri	6,178	130	802	941	85%
New Hampshire	1,395	130	181	219	83%
Virginia	8,684	130	1,127	1,424	79%
Oklahoma	4,020	130	522	715	73%
Georgia	10,913	130	1,417	2,028	70%
Montana	1,123	130	146	223	65%
Kentucky	4,512	130	586	926	63%
Nevada	3,178	130	413	794	52%
Maine	1,385	130	180	554	32%
North Dakota	779	130	101	319	32%
Wyoming	581	130	75	240	32%
Ohio	11,756	130	1,526	5,519	28%
Texas	30,030	130	3,899	16,524	24%
Oregon	4,240	130	550	2,636	21%
Utah	3,381	130	439	2,169	20%
Indiana	6,833	130	887	4,413	20%
Arizona	7,359	130	955	4,772	20%
Nebraska	1,968	130	255	1,416	18%
Pennsylvania	12,972	130	1,684	9,949	17%
New York	19,677	130	2,555	15,660	16%
Washington	7,786	130	1,011	6,239	16%
Colorado	5,840	130	758	5,314	14%
California	39,029	130	5,067	41,787	12%
Michigan	10,034	130	1,303	11,740	11%
Kansas	2,937	130	381	4,143	9%
Iowa	3,201	130	416	5,770	7%
Minnesota	5,717	130	742	10,477	7%
New Mexico	2,113	130	274	7,148	4%
Vermont	647	130	84	2,554	3%
South Dakota	910	130	118	4,161	3%
Wisconsin	5,893	130	765	31,882	2%
Idaho	1,939	130	252	16,628	2%
Alaska	734	130	95	-	n/a
Washington D.C.	672	130	87		n/a
Hawaii	1,440	130	187	-	n/a