

**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:

**Calvin Covington
Representing
Southeast Milk, Inc.
PO Box 3790
Bellevue, Florida 34421**

My name is Calvin Covington. This testimony is presented in support of National Milk Producers Federation's (NMPF) **proposal 1: Update the milk component factors in the skim milk price formulas**. This testimony is presented on behalf of Southeast Milk, Inc. (SMI), a long-time member of NMPF.

My off-farm career in the dairy industry covers 50 years, working with dairy farmers and their organizations. This work includes preparing proposals for and presenting testimony at many federal milk marketing order (FMMO) hearings over the past five decades. I retired from SMI as their CEO in 2010, but remain involved in the dairy industry, particularly, in the areas of milk pricing and federal order regulations. Since leaving full-time employment with SMI, my association with the cooperative continues, including serving as their Interim CEO most recently in 2022, and representing the cooperative on federal order and dairy policy issues. This includes serving as a member of the NMPF federal order task force which developed this and the other proposals presented at this hearing.

SMI is a Capper-Volstead cooperative and a pool handler in the Florida and Southeast FMMOs. SMI is responsible for supplying all the raw milk needs for four pool distributing plants located in the Florida FMMO and one pool distributing plant in the Southeast FMMO.

As of June 30, 2023, SMI's membership consists of 114 dairy farmer members who own and operate 119 Grade A dairy farms.

SMI extends its appreciation to the Secretary of Agriculture and the Dairy Division staff for holding this hearing.

My testimony in support of updating the milk component factors in the skim milk price formulas is organized into the following areas:

1. The current skim milk price formulas, and producer milk components.
2. Challenges created by the current skim price formulas.
3. Proposal to meet these challenges.
4. Comments on an alternative proposal.

Current skim milk price formulas and producer milk components

The skim milk price formulas used today in the eleven FMMOs were implemented as part of federal order reform in 2000. The skim milk component factors, implemented then and still in use today are:

- 3.1 protein
- 5.9 other solids
- 9.0 nonfat solids (protein plus other solids).

Keeping with the tradition of publishing milk prices on a hundredweight basis at 3.5% butterfat, the above skim milk components convert to 2.99 pounds of protein, 5.69 pounds of other solids, and 8.68 pounds of nonfat solids in one hundred pounds of milk containing 3.5 pounds of butterfat and 96.5 pounds of skim milk.

Federal order reform implemented multiple component pricing in seven of the eleven FMMOs. (Note: The Western order, one of the original seven multiple component pricing orders was terminated in 2004. California became a FMMO in 2018 bringing the total of multiple component pricing orders back to seven.) These seven FMMOs accounted for 89.0% of all FMMO producer milk in 2022. The majority of milk production in these seven orders is utilized in Class II, III and IV, the manufacturing milk classes.

In the seven multiple component pricing FMMOs, producers are paid for their skim milk production based on protein and other solids milk components. Handlers pay for Class III skim milk on the protein and other solids contained in the skim milk, and Class II and IV skim milk is priced based on its nonfat solids content.

The other four FMMOs use skim-butterfat pricing. Handlers pay for skim milk, in all four classes on a hundredweight basis, regardless of the components contained in the skim milk. Producers are paid the same way for their skim milk production, i.e., on a hundredweight basis, regardless of the components contained in the skim milk.

Dairy farmers have responded and continue to respond positively to economic signals to increase skim milk component levels. Continuous improvements in genetics, nutrition, and dairy farm management have and continue to enable dairy farmers to increase milk component levels.

Table 1, which uses data taken from the USDA-AMS-Dairy Program Table 3, shows annual producer milk component percentages from 2000 to 2022. During this time period, dairy farmers increased the protein percentage in their milk production from 3.02% to 3.25%. Nonfat solids percentage increased from 8.71% to 9.03%. Table 1 also shows, after declining from 2000 to 2010, the butterfat percentage increased from 3.70% in 2011 to 4.06% in 2022.

Table 1. Annual Butterfat, Protein, Other Solids, and Nonfat Solids Percentages in Producer Milk Using Data Provided by USDA-AMS-Dairy Program (Table 3)¹ (2000-2022)

<u>Year</u>	<u>Butterfat %</u>	<u>Protein %²</u>	<u>Other Solids %²</u>	<u>Nonfat Solids %²</u>
2000	3.69	3.02	5.69	8.71
2001	3.67	3.02	5.70	8.72
2002	3.69	3.02	5.71	8.73
2003	3.67	3.03	5.71	8.73
2004	3.67	3.04	5.70	8.74
2005	3.66	3.03	5.71	8.74
2006	3.69	3.05	5.71	8.76
2007	3.68	3.06	5.71	8.76
2008	3.69	3.06	5.71	8.77
2009	3.67	3.06	5.71	8.77
2010	3.66	3.05	5.74	8.79
2011	3.70	3.08	5.73	8.81
2012	3.71	3.09	5.75	8.84
2013	3.76	3.12	5.74	8.86
2014	3.74	3.12	5.74	8.86
2015	3.75	3.11	5.74	8.85
2016	3.77	3.12	5.75	8.87
2017	3.82	3.14	5.75	8.89
2018	3.88	3.15	5.76	8.91
2019	3.90	3.16	5.76	8.93
2020	3.92	3.18	5.77	8.95
2021	3.97	3.21	5.77	8.99
2022	4.06	3.25	5.78	9.03

Source: USDA-AMS-Dairy Program Table 3. Yearly Average Component Tests, by Order and All Markets Combined 2000-2022.

¹Based on test results submitted by Market Administrators, cooperative, or outside laboratories.

²Orders 5,6,7, and 131 only report butterfat.

Note: Order 51 began in November 2018; Order 135 terminated after March 2004.

The adoption of genomics in dairy cattle selection is increasing the speed of genetic progress, including higher milk component levels. Many widely used artificial insemination sires have positive genetic transmitting ability for milk components. Dairy farmers keep improving dairy cattle nutrition, cow comfort, and dairy farm management, all of which increase milk components. The research and tools available to assist dairy farmers in improving milk component levels continues to expand. All signs point to future increases in milk component levels.

Ken Nobis, a Michigan dairy farmer, will provide testimony regarding practices on his farm which have and continue to improve milk component levels. Michael Van Amburgh, Professor of Animal Science at Cornell University, will testify on milk component levels in farm milk, and how and why they are projected to continue to increase.

Challenges

In multiple component pricing FMMOs, the relative value of Class II, III and IV skim milk has increased, as components increased. However, the value of Class I skim milk in all FMMOs, and the value of Class II, III and IV in the four non-multiple component pricing FMMOs has not benefited from the increase in skim milk components.

Failing to adjust the skim milk component factors used to calculate the Class I skim milk value in all FMMOs, and the Class II, III, and IV skim milk values in the four non-multiple component pricing FMMOs has, is, and will continue to create marketing challenges unless skim milk component factors are updated regularly to correspond with actual milk component levels in skim milk.

An essential element of “modernizing” the FMMO system involves updating the protein and other solids content found in the producer milk supply in 2000, to the actual protein and other solids content in today’s producer milk supply. The out-of-date skim milk component factors mean today’s FMMO class prices fail to reflect the true value of skim milk, misalign the relationship between the values of fluid milk relative to manufacturing milk thereby creating disorderly marketing conditions, and make it more difficult to ensure consumers have an adequate supply of milk for fluid uses.

The skim milk component factors implemented under FMMO reform approximated the average pounds of protein, other solids, and nonfat solids contained in one hundred pounds of producer skim milk at the time. With so many changes in FMMOs occurring simultaneously, this was a practical approach. It also helped to maintain an alignment between the Class I skim milk value and the skim milk values of the three manufacturing milk classes.

However, as skim milk components increase, a misalignment in pricing occurs if adjustments are not made. Higher skim milk component levels increase the relative value of Class II, III and IV skim milk prices in FMMOs with multiple component pricing versus the Class I skim milk value in all FMMOs.

In 2000, the protein factor was established at 3.1, other solids factor at 5.9, and nonfat solids factor at 9.0. Again, these factors approximated the average pounds of protein, other solids, and nonfat solids contained in one hundred pounds of producer skim milk at the time.

In 2022, using data compiled from Market Administrator reports, the average pounds of skim milk components contained in one hundred pounds of producer skim milk was 3.39 protein, 6.02 other solids, and 9.41 nonfat solids. Table 2.

Table 2. Annual Average Pounds of Protein, Other Solids, and Nonfat Solids Contained in One Hundred Pounds of Producer Skim Milk in FMMOs with Protein and Others Solids Component Tests. (2000-2022)

<u>Year</u>	<u>Protein</u>	<u>Other Solids</u>	<u>Nonfat Solids</u>
2000	3.13	5.91	9.04
2001	3.14	5.91	9.05
2002	3.14	5.92	9.06
2003	3.14	5.92	9.06
2004	3.16	5.92	9.08
2005	3.15	5.93	9.08
2006	3.16	5.93	9.09
2007	3.17	5.93	9.10
2008	3.17	5.93	9.10
2009	3.17	5.93	9.10
2010	3.17	5.95	9.12
2011	3.20	5.96	9.16
2012	3.21	5.97	9.18
2013	3.24	5.97	9.21
2014	3.24	5.96	9.20
2015	3.24	5.97	9.21
2016	3.24	5.97	9.21
2017	3.26	5.98	9.24
2018	3.28	5.99	9.27
2019	3.29	6.00	9.29
2020	3.30	6.01	9.31
2021	3.35	6.01	9.36
2022	3.39	6.02	9.41

Source: Skim milk component levels calculated using data from Market Administrator reports.

Tables 3 and 4 show, numerically, the misalignment in milk prices caused by the increase in skim milk components.

Using average 2022 FMMO prices, and 2022 average protein and other solids levels stated above, the 2022 average Class III skim milk price, at test, in FMMOs with multiple component pricing was \$11.75 per cwt. Table 3.

If 2022 skim milk components were the same as the skim milk component factors established in 2000, the Class III skim milk price would have been \$0.83 per hundredweight lower or \$10.92 per hundredweight. See Table 3. (\$10.92 is the average 2022 Class III skim milk price per hundredweight published by USDA-AMS-Dairy Program).

Simply put, higher milk component levels in skim milk increased the average actual Class III skim milk price per hundredweight in FMMOs with multiple component pricing, by \$0.83 per hundredweight, compared to the current skim milk component factors.

Because the Class I Mover skim milk price is still calculated based on skim milk component levels implemented in 2000, the Class I Mover skim milk price does not increase when skim milk components increase. See Table 3. This results in a narrowing of the difference between the Class I and the Class III price, presenting more opportunities for price inversions.

Table 3. Misalignment in Skim Milk Prices – Class III skim versus Class I Mover skim

	<u>2000 skim milk components</u>	<u>2022 skim milk components</u>	
Protein	3.1	3.39	
Other Solids	5.9	6.02	
	<u>2022 avg. Class III skim milk price (\$/cwt.) using current skim milk protein and other solids component factors</u>	<u>2022 avg. Class III skim milk price in multiple component pricing orders (\$/cwt.) based on average 2022 skim milk protein and other solids</u>	<u>Change due to increase in skim milk protein and other solids</u>
	\$10.92 ¹	\$11.75 ²	+\$0.83
	<u>2022 avg. Class I Mover skim milk price in all orders (\$/cwt.)</u>	<u>2022 avg. Class I Mover skim milk price in all orders (\$/cwt.)</u>	
	\$13.03 ³	\$13.03 ³	\$0.00

¹Average 2022 Class III skim price reported by USDA-AMS-Dairy Program.

²2022 average component prices: protein = \$2.7238/lb., other solids = \$0.4188/lb. as reported by USDA-AMS-Dairy Program.

³Average 2022 Class I Mover skim milk price as reported by USDA-AMS-Dairy Program.

Table 4 shows similar calculations using the Class IV skim milk price. In 2022, the average actual Class IV skim milk price per hundredweight in FMMOs with multiple component pricing orders is \$0.61/cwt. higher due to the increase in nonfat solids level. Again, there is no change in the Class I Mover skim value, due to using the nonfat solids factor established in 2000.

Table 4. Misalignment in Skim Milk Prices – Class IV skim versus Class I Mover skim

	<u>2000 skim components</u>	<u>2022 skim components</u>	
Nonfat Solids	9.0	9.41	
	<u>2022 avg. Class IV skim milk price (\$/cwt.) using the current 2000 skim milk nonfat solids factor</u>	<u>2022 avg. Class IV skim milk price in multiple component pricing orders (\$/cwt.) based on average 2022 skim milk nonfat solids</u>	<u>Change due to increase in skim milk nonfat solids</u>
	\$13.52 ¹	\$14.13 ²	+\$0.61
	<u>2022 avg. Class I Mover skim milk price in all orders (\$/cwt.)</u>	<u>2022 avg. Class I Mover skim milk price in all orders (\$/cwt.)</u>	
	\$13.03 ³	\$13.03 ³	\$0.00

¹Average 2022 Class IV skim price reported by USDA-AMS-Dairy Program.

²2022 average Class IV nonfat solids price = \$1.5021/lb. as reported by USDA-AMS-Dairy Program.

³Average 2022 Class I Mover skim milk price as reported by USDA-AMS-Dairy Program.

Failure to adjust the skim milk component factors creates the following challenges:

1. A long-time practice in the FMMO system is the establishment of the Class I milk price based on the value of milk used for manufacturing, plus a specified Class I differential. In 2000, the actual Class III and Class IV skim milk values, approximated the announced FMMO Class III and Class IV skim milk values. This was because the FMMO skim milk factors closely aligned with the actual skim milk component levels at that time. Today, this is no longer true. The actual value of Class III and Class IV skim milk values in multiple component pricing markets is higher than the announced order Class III and Class IV skim milk prices. This is because the actual skim milk component levels are higher than the current skim milk component factors. Milk used for manufacturing derives its value from the components in the milk. The higher level of components in a hundredweight of milk the greater the milk's value. The Class I price is no longer being based on the actual value of milk used for manufacturing, but a lower value.

2. In FMMOs with multiple component pricing, a producer's prorated share of the Class I price is provided through the producer price differential. Higher component levels increase skim milk prices in Classes II, III and IV. Due to the outdated and fixed skim milk component factors, the Class I skim milk price does not increase as dairy farmers increase skim milk component levels. This allows skim milk prices for Classes II, III and IV to increase relative to Class I. As producer component levels increase, but without additional revenue from Class I skim (to increase the producer price differential), the difference between prices for Classes II, III and IV milk versus the respective federal milk marketing order's blend price narrows. This results in increased milk price inversions which leads to depooling, resulting in disorderly marketing.

3. Three FMMOs, Appalachian, Florida and Southeast, which use skim-butterfat milk pricing, are deficit in milk production. These FMMOs do not have an adequate supply of raw milk within their respective geographies to meet fluid milk demand throughout the year. Supplemental milk is purchased and transported into these three FMMOs from other regions to meet demand. Particularly, supplemental milk in the Appalachian and Southeast FMMOs is procured from marketing areas with multiple component pricing. The higher relative value of skim milk in these FMMOs, due to increased milk component levels, increases the cost of this additional supplemental milk. Due to no corresponding adjustment in skim prices in FMMOs with skim-butterfat pricing, this increases the cost of procuring supplemental milk. Most supplemental milk is procured by dairy cooperatives. Dairy farmers pay the increased expense which lowers their mailbox milk price.

Proposal

To correct the challenges caused by the current skim milk factors and to help better meet the primary objectives of FMMOs, the following is proposed:

1. Update the current milk component factors used in the skim milk price formula which applies to all FMMOs. The proposed skim milk component factors equal the weighted average pounds of protein, other solids, and nonfat solids in one hundred pounds of FMMO producer skim milk for the calendar year 2022, and rounded to the nearest one hundredth of a pound.

The proposed updated skim milk factors are:

Protein:	From 3.1 to 3.39 per one hundred pounds of Class III skim milk
Other Solids:	From 5.9 to 6.02 per one hundred pounds of Class III skim milk
Nonfat Solids:	From 9.0 to 9.41 per one hundred pounds of Class IV skim milk

2. The above updated skim milk factors would not be implemented until the first day of the twelfth month after adoption of this proposal. The current skim milk component factors would remain in place until then. Both dairy farmers and handlers use risk management programs, and this delay will allow most transactions placed prior to updating the skim milk component factors be completed.

Ed Gallagher, a risk management specialist, will provide testimony regarding the importance of delaying the implementation of the proposed skim milk component factors until the twelfth month after implementation.

3. To prevent future misalignments in the skim milk component factors, and to avoid returning to an administrative hearing, an updating procedure is proposed. By February 28th of the third year beginning one year after the announcement of a change of skim milk factors, AMS shall calculate the weighted average of component pounds (protein, other solids, nonfat solids) in one hundred pounds of FMMO producer skim milk for the three previous calendar years. If the calculated nonfat solids calculation differs by the nonfat solids factor in effect by 0.07 percentage points or more, then update the factors for protein, other solids, and nonfat solids to the corresponding calculated values. The updated factors would be announced no later than five (5) days after the calculation. Implementation of the updated factors would be effective the first day of March of the following year.

If the calculation does not exceed the 0.07 percentage point threshold, repeat this procedure in the following year, using the weighted average for the three preceding calendar years. Continue this procedure in subsequent years, until the 0.07 threshold is exceeded, and the skim milk component factors are updated, accordingly. If the factors are updated, repeat the procedure three years, thereafter. Table 5 is provided to help better understand the future adjustment procedure.

Table 5. Adjustment procedure example.

<u>Action or Occurrence</u>	<u>Date</u>
Assume proposal implemented	January 1, 2025
Updated skim milk factors implemented	January 1, 2026
Calculate weighted average of component pounds (protein, other solids, nonfat solids) in one hundred pounds of FMMO producer skim milk for the calendar years 2025, 2026, 2027	By February 28, 2028
If calculated nonfat solids factor differs by 0.07 percentage points or more from the nonfat solids factor in place, announce the updated skim milk factors	March 5, 2028
Implemented the updated skim milk factors	March 2029

If factors are updated, the above procedure is repeated in three years by using calendar years 2028, 2029, and 2030.

If the skim milk component factors are not updated the procedure is repeated in one year, using calendar years 2026, 2027, 2028 and so on until there is an update.

Skim milk factors need to be updated if components change. However, it is important to promote orderly marketing and to make changes no more frequently than necessary.

Updating every three years and using a three-year average smooths out unexpected “ups or downs” in component averages. With today’s rapid advances in genomics, biotechnology, and nutrition along with the potential of weather events that could impact the next year’s feed supply, it is possible to have unexpectedly large differences in milk components from one year to the next. Plus, the three-year average allows dairy farmers and handlers using risk management tools to better anticipate potential future changes.

The 0.07 factor was determined by looking at the historical change in nonfat solids levels, and keeping in mind the need to promote orderly marketing. If this proposal had been implemented as a part of federal order reform, three updates would have occurred over the past ten years. The 0.07 threshold is reasonable and helps maintain orderly marketing.

A change in the nonfat solids level is solely used to indicate if an update is warranted versus using each component separately. Nonfat solids are simply the sum of protein and other solids. Thus, a change in the level of nonfat solids is a result of a change in protein, other solids, or both.

Alternative Proposal

SMI appreciates National All-Jersey, Inc. (NAJ) also proposing an update of the skim milk component factors in its proposal number two. Even though the NAJ proposal is almost identical to the NMPF proposal, there are two parts of the NAJ proposal we disagree with. They are: 1) updating the skim milk component factors annually, and 2) annual change in either protein or other solids, regardless of magnitude, results in a change in the skim milk component factors.

A purpose of FMMOs is the promotion of orderly marketing of milk. This is the reason the NMPF proposal calls for only changing skim milk factors every three years, and only if the three-year average nonfat solids level exceeds the current nonfat solids by 0.07 percentage points or more. As stated above, skim milk factors need to be updated if components change. However, it is important to promote orderly marketing and to make changes no more frequently than necessary.

Under the NAJ proposal, an annual change in the other solids level from just 6.02 to 6.03, and no change in protein level would result in a change for the following year. It is difficult to see how such a small change is worth the effort. As testified to earlier, it is possible unexpected “ups and downs” in annual milk component levels could occur. Again, the reason for only changing every three years.

Again, we appreciate and thank NAJ for supporting an update in the skim milk component factors. However, SMI encourages the Secretary of Agriculture not to accept the portions of the NAJ proposal which includes updating annually, and based on a change in either protein or other solids regardless of the magnitude of the change. The update process proposed by NMPF is a more orderly process.

Summary

In summary, the milk component factors currently used in the skim milk price formulas need updating. Dairy farmers have increased and continue to increase the level of milk components in their milk production. This increase causes a price misalignment between the Class I skim milk value in all FMMOs versus Class II, III and IV skim milk values in multiple component pricing orders.

The component factors need updating to assist FMMOs in meeting their two primary purposes as specified in the Agricultural Marketing Agreement Act of 1937: 1) maintain orderly marketing conditions, and 2) protect the interest of the consumer by ensuring an adequate supply of fluid milk for consumption.

Southeast Milk, Inc. expresses its appreciation to the Secretary of Agriculture and the Dairy Division for holding this hearing to consider these important proposals. We encourage the Secretary to recommend the adoption of Proposal 1: Update the milk component factors in the skim milk price formulas.

Respectfully submitted,

Calvin Covington
On behalf of Southeast Milk

Appendix I.

FMMO language to amend 7 C.F.R. § 1000.50-51, applicable to all FMMOs, as contained in NMPF proposal 1: Update the milk component factors in the skim milk price formulas.

§ 1000.50 Class prices, component prices, and advanced pricing factors.

* * * * *

(f) *Class II nonfat solids price.* The Class II nonfat solids price per pound, rounded to the nearest one-hundredth cent, shall be the Class II skim milk price divided by ~~9~~ **the applicable nonfat solids component factor described in § 1000.51.**

* * * * *

(i) *Class III skim milk price.* The Class III skim milk price per hundredweight, rounded to the nearest cent, shall be the protein price per pound times ~~3.4~~ **the applicable protein component factor described in § 1000.51** plus the other solids price per pound times ~~5.9~~ **the applicable other solids component factor described in § 1000.51.**

* * * * *

(k) *Class IV skim milk price.* The Class IV skim milk price per hundredweight, rounded to the nearest cent, shall be the nonfat solids price per pound times ~~9~~ **the applicable nonfat solids component factor described in § 1000.51.**

(q) *Advanced pricing factors.* ...

(1) ...

(i) ...

(ii) Multiply the protein price computed in paragraph (q)(1)(i) of this section by ~~3.4~~ **the applicable protein component factor described in § 1000.51;**

(iii) Multiply the other solids price per pound computed in paragraph (q)(1)(i) of this section by ~~5.9~~ **the applicable other solids component factor described in § 1000.51;**
and

(iv) ...

(2) ...

(i) ...

(ii) Multiply the nonfat solids price computed in paragraph (q)(2)(i) of this section by ~~9~~ **the applicable nonfat solids component factor described in § 1000.51.**

* * * * *

§ 1000.51 ~~{Reserved}~~ Milk Component Factors

(1) Upon the implementation of this Order, the component factor for protein, other solids and nonfat solids shall be the following:

- (i) Protein 3.1;**
- (ii) Other solids 5.9; and**
- (iii) Nonfat solids 9.0.**

(2) Beginning the first day of the 12th month after implementation of this Order, the component factors for protein, other solids and nonfat solids shall be the following:

- (i) Protein 3.39;**
- (ii) Other solids 6.02; and**
- (iii) Nonfat solids 9.41.**

(3) By February 28th of the third year following the announcement of any change in the protein, other solids and nonfat solids component factors of producer skim milk under this section, those component factors shall each be updated to the simple averages of their respective three most recent calendar year weighted-average component tests of producer skim milk in all Orders, rounded to two decimal places, as calculated by AMS, if the resulting nonfat solids factor differs by at least 0.07 percentage points from that currently in effect.

- (i) Implementation of the updated component factors under this paragraph shall be announced no later than 5 days after the calculation that triggers a change and shall become effective the first day of March of the following year.**
- (ii) If a change in the component factors is not indicated by the calculation described in this paragraph, then the calculation shall be repeated the following year, and any change in the existing skim milk component factors shall be announced and implemented as described in this paragraph.**