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Milk in the Northeast and Other Marketing Areas

Proposal 2 – Milk Composition

Testimony of Erick Metzger representing National All-Jersey Inc.

Introduction

My name is Erick Metzger, and I serve as the General Manager of National All-Jersey Inc. (NAJ), a position I have held for 16 years. NAJ's business address is 6486 E. Main St., Reynoldsburg, Ohio, 43068. I was raised on a dairy farm in Indiana, earned a Bachelor of Science degree in Animal Science from Purdue University in 1982 and an MBA from Franklin University in 1999. I was employed by the American Guernsey Association for 10 years, including five years as its CEO. I have been with the Jersey organizations for the past 31 years. During my tenure with NAJ I have written numerous newsletters and articles for industry publications, provided economic analysis for producers and processors, and participated in industry discussion panels. I have testified as an expert witness and filed comments in conjunction with previous Federal order hearings.

NAJ is a national membership organization of over 900 milk producers and other people interested in supporting milk pricing that recognizes the value of milk components. Approximately 20 percent of NAJ members own dairy cattle other than Jerseys. It is this policy that compels NAJ to propose and testify in support of Proposal 2 to annually update the skim component factors used in the skim milk price formulas for Class III and Class IV milk.

Purpose of Updating Skim Component Factors

The current Class III and Class IV skim milk price formulas are:

Class III skim milk price = (protein price * 3.1) + (other solids price * 5.9)

Class IV skim milk price = nonfat solids price * 9.0

The current skim component factors of 3.1% protein, 5.9% other solids, and 9.0% nonfat solids substantially understate the skim components in average producer milk. Updating the skim component

factors will make the Class III and IV skim milk price formulas more accurate in relation to actual components in producer milk and will impact Class I prices across all FMMOs and Class II, III, and IV prices in the fat-skim FMMOs, 5, 6, 7 and 131. NAJ contends that updating the skim component factors generally and more regularly will help to reduce incentives for manufacturing to disassociate from FMMOs and will reduce disorderly marketing associated with the uneconomic movement of milk that occurs when manufacturing prices in non-MCP orders and Class I prices in all orders are not in alignment with the pricing of manufacturing milk in MCP orders where the actual value of those components play a role and have been on the rise.

Updating skim factors more regularly will reduce the burden on the pool when Class I contributes less component value to the pool than it draws out in component value thus contributing to incentives for manufacturing milk to depool. Updating skim factors more regularly will improve the alignment between manufacturing prices in skim-fat orders and manufacturing prices in MCP orders, as well as Class I prices in all orders and manufacturing prices in MCP orders. In addition, updated skim component factors will reduce the incentive for uneconomic milk movements by suppliers to move higher component milk away from outdated fat-skim priced outlets in fluid deficit regions to locations with higher value MCP pricing. Furthermore, updating skim component factors will reduce the current disincentive to move milk from reserve supply areas that are priced on MCP to deficit fluid milk markets that are priced on fat-skim.

FMMO DATA SHOWS THE CURRENT SKIM FACTORS ARE MUCH LOWER THAN THE SKIM COMPONENTS IN AVERAGE PRODUCER MILK

The current skim component factors of 3.1% protein, 5.9% other solids, and 9.0% nonfat solids substantially understate the skim components in average producer milk. NAJ Exhibit 1 shows that skim milk pooled in the seven MCP orders during 2022 averaged 3.39% protein, 6.03% other solids, and 9.41% nonfat solids. Skim solids data from MCP orders includes 100% of the pooled milk and is audited and verified by Market Administrators. Furthermore, NAJ Exhibit 1 shows that the rate of increase for skim protein has accelerated in recent years, indicating that the factors should be updated regularly to keep the price formulas accurate. Just two years earlier in 2020 skim components averaged 3.30% protein, 6.01% other solids, and 9.31% nonfat solids in the same orders.

Increases in both protein and butterfat account for the accelerating trend. In 2020 milk pooled in the MCP orders averaged 3.17% protein and 3.94% butterfat which equates to 3.30% protein in skim milk ($3.17 / (100 - 3.94)$). By 2022 protein increased to 3.25% and butterfat jumped to 4.08% making skim protein 3.39% ($3.25 / (100 - 4.08)$).

Increasing protein and butterfat tests can be expected to continue due to several dynamics. The first factors are the combined impact of improving genomic evaluations for both males and females along with increased use of gender-selected semen. Gender-selected semen allows dairies to produce their herd replacements from the best cows in their herds. Secondly, numerous milk buyers have implemented production quotas or base/excess programs. Virtually all these programs are volume based. When producers are limited on the volume of milk they can market, they logically increase the component content of their allowable production. Third, the use of automated or robotic milking systems is increasing. Each automated unit collects approximately the same volume of milk per day. Therefore, producers can maximize revenue by increasing the component content of the milk gathered by each automated unit.

The Case for Annual Updates

The NMPF proposal calls for the skim solids factors to be updated every three years using the preceding three-year average. NAJ Exhibit 1 calculated annual and three-year averages beginning with milk pooled in 2014. Based on that scenario, the first three-year average calculated following 2016 would have been 3.24% protein, 5.97% other solids, and 9.21% nonfat solids. These factors would be used for milk marketed in 2018, 2019, and 2020. The next three-year average would be calculated following 2019. Milk pooled in 2019 averaged 3.29% protein, 6.00% other solids, and 9.29% nonfat solids, which were 0.05% protein, 0.03% other solids, and 0.08% nonfat solids greater than the skim factors in effect at the time. Furthermore, the updated three-year average calculated following 2019 was 3.27% protein, 5.99% other solids, and 9.27% nonfat solids, an increase of only 0.06% nonfat solids, which did not meet NMPF's proposed threshold of a 0.07% increase in nonfat solids needed for the factors used in the skim milk price formulas to be updated. Therefore, the three-year skim factors calculated from 2014-2016 (3.24%, 5.97%, and 9.21%) would still apply to milk marketed in 2021 (3.35%, 6.01%, 9.36%).

NMPF's proposal states that when the updated three-year average does not meet the 0.07% NFS minimum threshold, the three-year average will be recalculated the following year. The three-year average following 2020 was 3.29% protein, 6.00% other solids, and 9.29% nonfat solids, an 0.08% increase over the skim factors in use at the time, so the skim component factors in the price formulas would be updated and used for milk pooled during 2022, 2023, and 2024. However, actual skim had increased to 3.39% protein, 6.03% other solids, and 9.41% nonfat solids in 2022, and is projected to be higher for 2023 and 2024.

Updating the skim component factors annually will keep the price formulas more accurate, and in better alignment with pricing available in MCP orders, than using three-year averages that are updated every

three years. This is particularly true considering the recently accelerated pace of component increases which are expected to continue.

UPDATING SKIM FACTORS MORE REGULARLY WILL REDUCE THE CIRCUMSTANCES THAT CONTRIBUTE TO MANUFACTURING MILK DISASSOCIATING FROM FMMOS

Producers in MCP orders are paid for all pooled pounds of protein, butterfat, and other solids. However, Class I skim value is based on the on the average of Class III and IV skim values, plus \$0.74/cwt., using the standard skim component factors of 3.10% protein, 5.90% other solids, and 9.00% nonfat solids. When Class I skim contains higher protein and other solids than the standard factors, Class I skim can draw more skim value from pooled revenue than it contributes.

Furthermore, Class III and IV handler obligations to FMMOs are based on the actual components pooled: protein and other solids for Class III, and nonfat solids for Class IV. Class III and IV actual component levels typically exceed the standard skim component levels used to value Class I. Depending on the price relationship between protein and nonfat solids, Class III skim value can exceed the skim values of both Classes I and IV, or Class IV skim value can exceed the skim values of both Classes I and III. In those instances, handlers of Class III or Class IV would be obligated to contribute to pooled revenues instead of drawing from pooled revenues. When those value relationships occur, Class III or Class IV handlers often opt to disassociate their milk from the FMMO, a practice commonly referred to as depooling. Two results of depooled milk are that it increases non-uniformity of pricing among handlers as well as non-uniformity of pricing among producers.

NAJ Exhibit 2, “Comparison of Classes I, III, and IV Skim Values (at test)”, illustrates skim component values and price relationships for 2021 and 2022 along with Class III and IV pooled volumes. In 2021 Class III skim value exceeded both Class I and IV skim value. As a result, only 37.5 billion pounds of Class III was pooled. In 2022, Class III skim value was less than both Class I and IV skim value, and 81.7 billion pounds of Class III was pooled. However, Class IV shows the exact opposite scenario. In 2021 Class IV skim value was less than both Class III and Class I, resulting in 37.2 billion pounds of Class IV pooled. However, in 2022 Class IV skim value exceeded both Classes I and III, and the volume of Class IV pooled dropped to 14.6 billion pounds.

NAJ Exhibit 2 also shows Class I skim value in 2021 would have been \$11.26/cwt. based on NAJ’s proposed updated skim component factors of 3.29% protein, 6.00% other solids, and 9.29% nonfat solids.

The Class I skim value would have exceeded both Class III and IV skim value and discouraged Class III depooling. In 2022 NAJ's proposed updated skim component factors of 3.30% protein, 6.01% other solids, and 9.31% nonfat solids would have generated a Class I skim value of \$13.55/cwt., higher than both Classes III and IV, and would have discouraged Class IV from depooling.

In April 2021 Dr. Marin Bozic and Dr. Christopher A. Wolfe published Working Paper 21-01 in conjunction with the Program on Dairy Markets and Policy (<https://dairymarkets.org>). Included as NAJ Exhibit 4, that article, entitled, "Negative Producer Price Differentials in Federal Milk Marketing Orders: Explanations, Implications and Policy Options", analyzed six factors that contributed to negative PPDs including increasing component tests. In brief, PPDs represent the difference in an order's total pooled milk value and the value of the order's protein, other solids, and butterfat. Beginning on Page 16 the authors describe the impact of increasing component tests on PPDs.

"Increases in protein test reduce total producer price differential. The reduction is higher in orders where more milk is utilized in Class I. Since the value of Class I skim milk depends only on pounds of skim milk used, not protein test, increase in the protein test does not increase handler obligation to the pool for Class I skim milk. The negative impact on PPD will also be more pronounced the wider the spread between protein price and nonfat solids price."

The research found that the outdated skim component factors contributed an average of -\$0.14/cwt to PPDs during 2020 (Table 6, page 37). Furthermore, the research analyzed the impact of adjusting the skim protein standard to 3.4% from the current 3.1% and found that the change would have added an average of \$0.38/cwt. to PPDs from 2015 through 2020 (Table 8, page 39).

Adjusting the standard component factors in the skim price formulas will keep Class I skim value more nearly aligned with manufacturing skim value, thereby reducing the current negative impact on PPDs and reducing the incentives for handlers of Class III and IV to depool. Given that handler pool obligations are based on actual components, and given recent rapid increases in skim components, updating the skim component factors annually will align Class I skim value more closely with manufacturing skim value in MCP orders than implementing a three-year average updated every three years.

IMPACT OF UPDATED SKIM COMPONENT FACTORS ON CLASS I IN ALL ORDERS AND CLASSES II, III, AND IV IN FAT-SKIM ORDERS

NAJ Exhibit 6, Impact on Class I Skim Values 2019 – 2022, compares Class I skim values using current skim component factors, NMPF's proposed three-year averages that are updated every three years, and

NAJ's proposed annual updates. Using a starting date of 2014 as shown in NAJ Exhibit 1, the three-year skim component average in effect for 2019 would have been based on years 2014-2016 (3.24% P, 5.97% OS, and 9.21% NFS). NAJ's proposal to update skim component factors annually would have used 2017 averages of 3.27% P, 5.98% OS, and 9.25% NFS. NMPF's proposal would impact Class I skim value by \$0.24/cwt., and NAJ's proposal would impact Class I skim value by \$0.29/cwt., a \$0.05/cwt. difference.

Going forward, NMPF's three-year average from 2014-2017 would continue to be used for 2020 and 2021 because the next scheduled re-calculation of the three-year average following 2019 resulted in an increase of 0.06% NFS, less than NMPF's proposed minimum threshold of a 0.07% increase. By 2021 the spread in Class I skim value between the NMPF proposal and the NAJ proposal widened to \$0.11/cwt.

NAJ Exhibit 3, Impact of Updated Skim Factors on Fat-Skim Orders, utilized data provided by USDA's data "Milk Components by Class and Order – 2008-2023". NAJ focused its analysis on Orders 5, 6, and 7 only because USDA's footnotes to the dataset stated that Order 131 components were simply based on Order 124 whereas component data for Orders 5, 6, and 7 represented over 70% of milk pooled in those three orders.

NAJ's Exhibit 3 compares Class II, III, and IV values for Orders 5, 6, and 7 from 2019 through 2022 based on:

- Current fat-skim pricing.
- Fat-skim pricing using NAJ proposed updated skim component factors.
- MCP pricing (including NAJ proposed updated skim component factors impacting Class II)

In broad terms, the weighted average skim component content for Classes II, III, and IV for orders 5, 6, and 7 mirror national skim component factors. In all four years (2019-2022) the skim components in manufacturing milk exceeded the current skim component factors of 3.10% protein, 5.90% other solids, and 9.00% nonfat solids. Proposal 2 will ensure that manufacturers in Orders 5, 6, and 7 will pay prices for their milk needs that more accurately reflect the value of that milk. Furthermore, Proposal 2 will more nearly equalize manufacturers skim costs between the fat-skim orders and the MCP orders. The current skim component standards afford manufacturers in the fat-skim orders a cost advantage over manufacturers in MCP orders. NAJ firmly believes that the analysis would hold true with Order 131 if the data were available. I am aware of no reason why it would not.

UPDATING SKIM FACTORS TO STAY IN ALIGNMENT WITH CURRENT COMPONENT LEVELS NATIONALLY WILL REDUCE THE INCENTIVE FOR UNECONOMIC MILK

MOVEMENTS THAT MAKE IT DIFFICULT FOR FLUID MILK PLANTS TO ATTRACT NEARBY MILK

NMPF's proposal to update skim component factors included the following justification:

Three of the non-MCP orders, Appalachian, Florida and Southeast do not have an adequate supply of producer milk within their marketing areas to meet consumer fluid milk demand. Supplemental milk must be transported into these markets to meet this demand. The supplemental milk is typically supplied from federal orders using MCP. The higher relative value of skim milk in MCP versus non-MCP markets increases the cost of supplemental milk for the non-MCP, deficit fluid milk markets. In addition, it decreases the incentive to move milk from reserve supply areas to deficit fluid milk markets. Both make it more costly and difficult to ensure consumers have access to an adequate supply of fluid milk.

NAJ agrees with this statement. Updating the skim component factors will impact the skim milk price of all four Classes in the three fat-skim orders in the southeast thereby raising the statistical uniform price by the full amount of the update. Updating the skim component factors will only affect the Class I price in the surrounding MCP orders supplying supplemental milk, and the resulting impact on their statistical uniform price will be limited to the extent of each orders' Class I utilization. The result will be to minimize the differences in skim value between the MCP and skim-fat orders, thereby increasing the incentive for milk to move from the MCP orders to the southeast orders.

Impact on Risk Management Programs

Risk management programs have become increasingly important to dairy producers. Various risk management tools allow producers to limit their exposure to future milk price fluctuations and milk price-feed costs margins.

Consideration of risk management tools is important when considering changes to FMMO price formulas so that a regulatory change does not create disorder in the marketplace. Sufficient time is needed between the announcement of a price formula change and when the change is implemented. Participants utilizing risk management tools need to know if and when price formulas underlying the risk management contracts are going to change and the magnitude of the change. The annual updates to the skim component factors can be known by mid-January each year following the calculation of December Statistical Uniform Prices for the MCP orders. Each month's Statistical Uniform Price calculation includes the component content of pooled milk. NAJ proposes the updated factors become effective with

milk marketed January the following year. This provides an 11-month time lag between announcement of the updated factors and when the updated factors become effective.

However, if that time lag is deemed not to be in the best interest of the industry, NAJ is open to a longer time delay between the announcement and implementation. However, NAJ also asserts that instituting a longer delay increases the imperative that the updates be done annually instead of every three years to keep the skim component factors in stronger alignment with actual components.

CME Group lists monthly dairy futures contracts for 24 consecutive months. The number of outstanding contracts is called the open interest. The Class III Milk Futures contract is the most utilized dairy risk management tool. Open interest in Class III Milk Futures contracts on August 11, 2023, was 21,029, with open interest as far in the future as March 2025. However, the heaviest open interest existed for contracts expiring in the next five months (16,923, 80%), and 93% of the open interest was for contracts expiring in the next ten months (20,023).

However, NAJ also observes that potential updates to skim component factors can be tracked monthly as FMMO data is reported through [MPR Data Mart \(usda.gov\)](https://www.usda.gov/MPR/DataMart). NAJ Exhibit 5, Monthly Skim Components January 2019 – December 2022, shows that the average skim components reported in the MCP orders for January through June each year are very predictive of that year's final skim components. From 2019 through 2022 average skim components reported from January through June were within 0.01% of each year's annual skim components. Therefore, it follows that concerns for the use of risk management tools in conjunction with annual updates of skim factors are greatly exaggerated.

In closing NAJ thanks the Department for the opportunity to participate in this national public hearing to consider proposals to amend the pricing formulas in the 11 FMMOs. NAJ urges the adoption of its proposal in its entirety because it will contribute to greater order within and among FMMOs and among milk uses. For the reasons outlined in this testimony and supporting documentation, NAJ believes that annual updates to the skim component factors in the Class III and Class IV skim milk price formulas best achieve the objective of increasing their accuracy, thereby better aligning skim values more closely to manufacturing skim values in all orders for Class I and for Classes II, III, and IV in the fat-skim orders .