BEFORE THE UNITED STATES DEPARTMENT OF AGRICULTURE

In the Matter of

MILK IN THE NORTHEAST AND OTHER MARKETING AREAS

DOCKET NO. AO-14-A69, et al.

DA-00-03

CONSOLIDATED COMMENTS BY
SELECT MILK PRODUCERS, INC., DAIRY FARMERS OF AMERICA,
CONTINENTAL DAIRY PRODUCTS, INC., NATIONAL ALL-JERSEY
INC., SOUTHEAST MILK, INC., LONE STAR MILK PRODUCERS,
ARKANSAS DAIRY COOPERATIVE ASSOCIATION, DAIRY
PRODUCERS OF NEW MEXICO, TEXAS ASSOCIATION DAIRYMEN,
MILK PRODUCERS COUNCIL, NATIONAL FARMERS
ORGANIZATION, DAIRYLEA COOPERATIVE INC.
IN SUPPORT OF THE RECOMMENDED DECISION BUTTERFAT
ADJUSTMENT TO THE PROTEIN FORMULA

I. Introduction and Standing

A. Standing of Parties to Comment.


Select Milk Producers, Dairy Farmers of America, Continental Dairy Products, Lone Star Milk Producers, Arkansas Dairy Cooperative Association, National Farmers Organization, and Dairylea Cooperative Inc. are all member owned and operated milk marketing cooperatives qualified in accordance with 7 C.F.R. §900-350-357. In total they market milk of their members in all 10 of
the 11 milk marketing orders (not Arizona) as well as in unregulated markets and markets subject to state order provisions such as California, Maine, Virginia, Montana, Hawaii, and portions of New York and Pennsylvania. The milk of the members of these cooperative associations represents thirty percent of the milk marketed nationwide, thirty three percent of the milk marketed by cooperatives, and almost forty percent of the milk pooled on federal orders.

National All Jersey (NAJ) is a national dairy producer organization with over 740 members nationwide. NAJ assists its members in marketing their milk through negotiating non-regulated milk pricing and premium programs with milk processors, and by representing the membership on legislative and regulatory issues involving milk marketing regulation and policy.

Dairy Producers of New Mexico, Milk Producers Council, and Texas Association of Dairymen are producer trade organizations that represent their dairy producer members in administrative and legislative fora to promote the interests of their members. Their members are located in the states of California, New Mexico, and Texas.

In total, the cooperatives and organizations that have signed on to these comments have members that market milk in virtually every state of the Union and pool milk in every federal order. Coupled with the separate comments in favor of the Butterfat Adjustment, a very large percentage, in some regions nearly unanimous, of producers support these provisions.

In addition to the parties who have signed on to these comments, a number of producer organizations have separately filed comments that support the butterfat adjustment to the protein calculation. At the time of this writing, the Producer Organizations are aware of comments filed by National Milk Producers Federation, Michigan Milk Producers Association, and Western United Dairymen. There will be others. It is estimated that a vast majority of producers and milk pooled on the various federal orders will through their organizations and cooperatives voice support for the Butterfat Adjustment.
B. Summary of Position

The Secretary had it right by recommending the Butterfat Adjustment. The Recommended Decision on butterfat adjustment to the protein component consists of a .9 factor times the Class IV butterfat price (to reflect that only 90% of butterfat is in the cheese butter formula) and 1.17 times the difference between Class III and IV butterfat values (to reflect the number of butterfat pounds to protein pounds in milk at standard test.

The Secretary’s correct formulas will correct three serious problems with the current pricing formula—It will (1) reduce the standard deviation in the gross margin in Class III to .01 from a from the current .17 which indicates more stable margins, (2) eliminate the anomaly of rising butter lowering producer prices, and (3) restore much of the producers’ share of cheese prices lost in federal order reform.

The Recommended Decision directly addresses the first two issues, and, as a consequence, satisfies the last.

This memorandum addresses and supports only the modifications to the protein pricing component of the Recommended Decision. Specifically it supports the use of the .9 factor in the Class IV butterfat adjustment and the reduction of the butterfat to protein ratio in standardized milk from 1.28 to 1.17. Support for the Recommended Decision’s protein formula also includes support for maintenance of the three cent adjustment to the NASS barrel price, adjusting the NASS barrel prices to 38 percent moisture, the 0.165 make allowance, and refusal to include 640# blocks in the NASS cheese price survey. Other issues involving changes or denial of changes to other component formulas is not addressed by this memorandum. The signatories to these comments may address their respective positions on the other formulas separately. Though all of the signatories agree with each other to the position stated in these comments, they may disagree with each other on other
issues addressed separately and any organization’s consent to these comments cannot and should not be construed as consent to comments made separately.

Specifically this comment addresses the proposed changes to 7 C.F.R. §1000.50(n) which, as recommended, reads:

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

* * *

(n) Protein price. The protein price per pound, rounded to the nearest one-hundredth cent, shall be computed as follows:

(1) Compute a weighted average of the amounts described in paragraphs (n)(1)(i) and (ii) of this section:
   (i) The U.S. average NASS survey price for 40-lb. block cheese reported by the Department for the month; and
   (ii) The U.S. average NASS survey price for 500-pound barrel cheddar cheese (38 percent moisture) reported by the Department for the month plus 3 cents;

(2) Subtract 16.5 cents from the price computed pursuant to paragraph (n)(1) of this section and multiply the result by 1.405;

(3) Add to the amount computed pursuant to paragraph (n)(2) of this section an amount computed as follows:
   (i) Subtract 16.5 cents from the price computed pursuant to paragraph (n)(1) of this section and multiply the result by 1.582; and
   (ii) Subtract \(9\) times the butterfat price computed pursuant to paragraph (l) of this section from the amount computed pursuant to paragraph (n)(3)(i) of this section; and
   (iii) Multiply the amount computed pursuant to paragraph (n)(3)(ii) of this section by 1.17.

The portions in bold italic underline identify the changes recommended that the Producers support. Together these changes constitute the “butterfat adjustment portion of the protein formula” as described at 66 Fed. Reg. 54084. Producers Organizations will reference the two factors as the “Butterfat Adjustment”.

II. The Need for Changes in the Protein Formula

A. The current formula continues to deny producers a fair price for their class III milk.

The Butterfat Adjustment corrects a glaring inconsistency in the final results of the Milk Marketing Order Reform. Though the Secretary stated repeatedly during the process of the FAIR
Act reformation of the federal milk marketing orders (FMMO) that a primary goal of the replacements to the BFP, (ultimately the class III and IV prices in the Final Rule), “is that it [the BFP replacement] should not deviate greatly from the price level of the current BFP.” 64 Fed. Reg. 16096 (April 2, 1999) [emphasis added], the actual prices for Class III and IV actually fell short of that goal. The Secretary’s own evaluation of the BFP replacement in the Final Rule found that the replacement class III price was 3.5 percent below the BFP and the class IV price was 3.7 percent below the current BFP. Id. Experience so far in 2000 and 2001 has shown that the class III price itself has provided producers almost fifty cents less of the cheese market prices than the BFP and M/W had provided earlier. The Recommended Decision corrects this.

During these last two years, seven of the 24 months’ Class III prices did not even meet the meager Dairy Price Support Program’s cheese support price. In fact, the simple average of Class III prices for the entire year of 2000 fell short of the support level of 9.80 at 3.5% test. Had the money moved from producer prices to the gross margin for class III remained with producers, few, if any, months would have seen prices below support.

Even though one part of USDA tried to set support prices at 9.90 by using the FMMO formulas, it could not do so. That evidences inconsistency between the formula assumptions and the market place. The Recommended Decision goes a long way to coordinate the goals of two branches of USDA.

The reduced income is caused by an increase in the gross margin generated by the protein and other solids formulas. The Secretary acknowledged that under the current formula, the average gross margins including make allowances for cheese milk approximate $3.00. 66 Fed. Reg. 54087. Prior to the order reform, the gross margin averaged forty cents less. During the entire rulemaking process including the current hearing has any evidence been presented that justifies a reduction in producer prices for milk used in cheese.
B. The Gross Margin generated by the current formula is too variable and should be stabilized.

The current formula flattens the erratic gross margins under the previous BFP formulas, but still has too much variability. Chart 1, derived from the data shown in Appendix 1, shows how the gross margin is stabilized by the Recommended Decision.

Using the methodology described by the Secretary at 66 Fed. Reg. 54087, the gross margins were computed for each of the formulas. They are found at Appendix 1 and summarized below.

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The Recommended Decision brings needed stability to the pricing of milk.

C. Rising butter rises reduce producer income.

The Butterfat Adjustment in the Recommended Decision remedies the question as to why a rise in NASS Grade AA Butter should result in a loss of producer of income. The erroneous butterfat adjustment now in place means that as butter prices rise, class III milk drops even if cheese remains the same. [Hearing Transcript Barbano 520] This anomaly, suffered by producers under current rules, not only defies common sense and fairness, it violates the AMAA, counters testimony at the rule-making hearing, and has not received a single supporting argument from anyone in the industry regardless of point of view. *There are those who want producers to receive less money, to be sure, but, no one has argued that rising commodity prices should result in lower producer income.*

For every ten cent increase in NASS AA butter, the value to the plants, the Class III price, the value to the producers, now drops 4.01 cents. The effect can be seen in Table 1.

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**Table 1. Impact of rising NASS Grade AA Butter Price with a level cheese price.**

Formula: 2.9915*{(Cheese*1.405)+((Cheese*1.582)-(Butter/0.82))*1.28}+3.5*(Butter/0.82)

When market conditions cause butter prices to rise (i.e., butter is short), protein will fall in value. [Hearing Transcript Taylor 1756-1757]. Nothing in the administrative record during either the informal rule-making or the current hearing process has ever supported, by fact or even
argument, that rising butter prices, should themselves result in reduced producer prices. Barbano described this as wrong. [Hearing Transcript Barbano 520] Any formula that results in such an aberration is, by itself, arbitrary. If anything, the value of the Class III should go up as plants recognize the value of the remaining ten percent of the butterfat received in the plant as explained later in this paper.

The Butterfat Adjustment in the Recommended Decision is not a policy dispute, or even a genuine dispute over yields or make allowances, it is simply a question as to whether standard formulas and assumptions are going to be consistently applied or will, as others will urge the Secretary, be the result of speculation and arbitrariness. Fortunately for producers, and all who seek to govern by principle and fairness, the Secretary has determined that the Butterfat Adjustment needs to be corrected and has, in the Recommended Decision made the necessary adjustment to the protein formula. Consistent use of the 90% butterfat recovery in both Butterfat Adjustment with both the cheese butter formula and the Class IV is just one example of the Secretary’s proper application in the formula. Because the current formula is not so consistent, producers are now daily losing substantial amounts of money and will continue to do so until the underlying formulas are corrected as recommended. It is estimated that the current rule’s deficiencies have resulted in producer losses of almost a half a million dollars in class III prices alone during the last two years.

The Recommended Decision on the Butterfat Adjustment shows that the Secretary truly does intend to correct pricing to restore the producer’s share of product prices. We support the Secretary’s decision and urge that it be made a final rule at the earliest possible date.

III. Explaining the Butterfat Adjustment

The Butterfat Adjustments of .9 and 1.17 are the necessary result of properly adopting Class IV as the butterfat formula for Class III and adjusting protein component price in response to that use while maintaining the relative weight of protein to butterfat in cheese and in raw milk. The explanation of why and how that adjustment should take place is as follows:
1. The protein price adjustment is due to a solid policy decision: There should be one butterfat formula for all classes of milk.

2. The NASS cheese price survey drives the protein price.

3. The Protein formula is \((\text{NASS Cheese - 0.165}) \times 1.405\). The 1.405 comes from the Van Slyke formula which is:

\[
P = \frac{\{\text{BF} \times \text{BR} + \text{PR} \times \text{CS} - 0.01\} \times 1.09}{1 - \text{M\%}}
\]

Where
- \(\text{BF}\) = butterfat lbs
- \(\text{BR}\) = butterfat recovery
- \(\text{PR}\) = true protein pounds, and
- \(\text{CS}\) = percentage of casein in true protein
- \(\text{M}\) = Moisture content

4. After a hearing on the matter and consideration of the evidence, the Secretary has determined the values as follows:
- \(\text{BR} = \text{butterfat recovery} = 90\%\)
- \(\text{CS} = \text{percentage of casein in true protein} = 83.26\%\)
- \(\text{M} = \text{Moisture content} = 38\%\)

5. Solving for one pound of protein, the cheese yield is this:

\[
\text{Cheese yield from one pound of protein} = \frac{\{1 \times .8326 -.1 \times 1.09\}}{.62} = 1.405
\]

This means for every additional pound of protein, there will be 1.405 pounds of additional cheese. [Hearing Transcript Barbano 515]

6. *Applying the same formula using the same assumptions*, the Secretary has calculated the butterfat yield.

\[
\text{Butterfat Yield} = \frac{1 \times .9 \times 1.09}{1 - .38} = 1.582
\]

[Hearing Transcript Barbano 516].

7. The butterfat yield in the Class III formula is \((\text{NASS Cheese - 0.165}) \times 1.582\).

8. The Class IV BF formula is \((\text{Price of One pound of NASS AA Butter - 0.115})/0.82\). Unlike the cheese formula, the butter formula values an entire pound of butter.
9. According to the Van Slyke formula, the factor 1.582 is a direct and necessary result of the determination that only 90% of the butterfat is captured in the cheese. On the other hand, the Class IV butterfat formula implies all of the butterfat being recovered.

10. Since the cheese formula only accounts for 90% of the butterfat, any substitute butterfat value, in this case Class IV, must also account for only 90%. Thus the formula for Class IV butterfat in the Butterfat Adjustment is \( 0.90 \times (\text{NASS AA Butter} - 0.115)/0.82 \)

11. The difference between a pound of Class III BF and Class IV BF used in Class III is (Class III BF - .90*Class IV BF)

12. The Standardized Class III price (ignoring other solids which has no bearing in this analysis)

\[ 2.9915 \times \text{(Protein)} + 3.5 \times \text{(BF)} \]

13. It takes 1.17 pounds of protein to generate the same value as 1 pound of butterfat in the Standardized milk (3.5/2.9915)

14. Substituting the formula in 2 the formula looks like this:

\[ 2.9915 \times [(\text{NASS Cheese} - 0.165) \times 1.405 + (\text{NASS Cheese} - 0.165) \times 1.582 - 0.9 \times (\text{NASS AA Butter} - 0.115)/0.82] \times 1.17 + 3.5 \times [(\text{NASS AA Butter} - 0.115)/0.82] \]

15. Solving for protein

\[ (\text{NASS Cheese-0.165}) \times 1.405 + [(\text{NASS Cheese-0.165}) \times 1.582 - 0.9 \times (\text{NASS AA Butter-0.115})/0.82] \times 1.17 \]

That is what the Recommended Decision provides and it should be adopted.

Despite anticipated arguments of processors and others who want producers to receive less money, the Secretary’s rationale in the Recommended Decision was absolutely correct. There has been no additional hearings or testimony to change the record and there is no justification for an alteration of that decision.

Some may also argue that all that is needed is to correct the 1.28 factor to 1.17. This will not solve all of the problems. [Hearing Transcript Barbano 521]. Such a solution will reduce
producer prices even further. Stability to gross margins and recovery of lost producer value still must be addressed.

Another argument against the use of the .9 factor might be what one witness claimed—producers are already paid for the full value of butterfat. [Hearing Transcript Taylor 1734] “The 8 other 10 percent of the butterfat that is not captured in the cheese is valued at the Grade AA value.” Though all of the butterfat is paid for in the Class III formula, it does so at cost to the protein. The question is how much more should protein pay for higher butterfat values than is proper.

Another argument is that the formula is overvaluing whey cream. Taylor 1733, 1761. Reinke 1041. The answer to this argument is “no” and “no”. “No” because the formula does not value whey cream. Rather the function of butterfat yield is adjust the protein price because the Class IV butterfat formula sets the Class III butterfat value. Protein is a residual of the butterfat yield. And “no” to being overvalued. The Secretary in her own economic analysis generated gross margins. 66 Fed. Reg. 54087. These show, even under the Recommended Decision, that the gross margin exceeds the official make allowance by almost 90 cents. That difference means that, by the Secretary’s own recognition and the hearing evidence, that there is product valuable to cheese manufacturers that is not included in the producer pricing formula. This unpriced product includes the unpriced whey cream (the ten percent of butterfat not recovered) and protein (only 83.26% of protein is priced). Unpriced means no value. No value is not overvalued.

Viewed in the totality of the Secretary’s statutory responsibility under the AMAA, logic, and common sense, those who argue the current formula should continue are wrong.
IV. Comments in support of the Recommended Decision’s changes to the Butterfat Adjustment to the Protein Formula.

A. The correction creates a consistent and fair margin that is predictable to manufacturing plants regardless of the relationship of the NASS Grade AA butter and the NASS cheddar cheese price.

The Proposed Rule for the butterfat adjustment will result in predictable and stable margins regardless of changes in the NASS Grade AA butter price. Under the BFP, a competitive pay price, the implied margin (cheese price times a yield less the BFP) was widely variable. Appendix 1 uses the methodology described in the Recommended Decision for gross margin. It shows that the current formula has an average gross margin of 2.97 with a standard deviation of .17. This is far more stable than the previous BFP that had a standard deviation of .58 from a midpoint of 2.61. The Recommended Decision, however, reduces the variability to an STD of .01.

In a product formula that uses standardized yields and a fixed make allowance, it is essential that the gross margin be stable. Barbano described this “mass balance” in his cheese price calculator that insisted on equating the price paid for milk plus the make allowance to the value of the products produced. Such stability is necessary to insure integrity and trust in the system.

B. The correction will stabilize Class III prices at 3.5 regardless of changes in NASS Grade AA butter prices.

As Table 1 shows, an increase in the NASS Grade AA butter series at a time of unchanging NASS Cheddar cheese prices, will result in depressed Class III prices. For every 10 cent increase in the price of NASS Grade AA butter, the Standardized Class III drops 4.01cents cwt. The Recommended Decision, however, does not result in derogation of the Class III price.

The slight increase in Class III prices in response to higher NASS Grade AA butter prices recognizes that in a system in which fat can move readily in the market from one use to another, the rising value of fat in other uses should, and will pull on the prices for milk used in cheese. After all, the ten percent of butterfat not accounted for in the protein formula has some value. The use of a single butterfat formula for all classes recognizes that butterfat can, and does, move from class to
class. A significant difference between the cheese and butterfat prices will result in plants marketing more of the butter outside of the cheese process. This added value will, in a very small part, be returned to producers in the formula. Thus this slight increase in Class III prices under the Recommended Decision is appropriate.

C. The recommended formula is mathematically correct and consistent.

The Recommended Decisions proposal to employ a Butterfat Adjustment that incorporates a multiplication of the class IV BF by .9 and reduces the butterfat to protein adjustment to 1.17 is mathematically correct and consistent with the rest of the formula.

The only testimony as to what the factor should be came from Dr. Barbano. He testified to the necessity of checking the validity of a formula by taking all the value of the products made from a hundred weight of milk delivered to a cheese plant and subtracting out the manufacturing allowances and the milk price. If the formula correctly accounts for all the value, the net result of this exercise according to Dr. Barbano should be zero. Termed another way, the value of the milk going in at test should equal the value of all of the products that came out plus the make allowance. [Hearing Transcript Barbano 543-548]

However, he did testify that, alternatively, by multiplying the Class IV butterfat by the butterfat recovery, the same result could be approximated without doing violence to the formula scheme the Secretary had already adopted. Dr. Barbano essentially endorsed this approach in a response to a question about what could be done to address the issues he had raised within the limitations of the existing formulations. [Hearing Transcript at page777-780].

There may well be attempts from some parties to emasculate the formula and fudge factors here and there. The Secretary should refuse outright to submit to subterfuge. She has adopted the Van Slyke formula. That was the testimony. Those who argue the factor should be something else have no record support for such.
D. The Formula still uses a conservative butterfat yield of only 90%.

At the hearing there was ample evidence that cheddar cheese that qualifies for NASS reporting, as opposed to cheddar cheese that is aged, has a higher fat content, or other cheeses, has a much higher butterfat recovery and that of the butterfat that is not recovered it is either reprocessed in subsequent batches or sold as a commodity. Nonetheless, the Secretary has determined to stay at 90 percent recovery. This formula does not alter the use of that conservative butterfat recovery.

E. The correction restores producer prices to pre-reform levels but does not raise them.

The Recommended Decision estimated under the Order Reform, the actual gross margin received by cheese plants averages almost $3.00. 66 Fed. Reg. 54087 Prior to that, the gross margin, using the same methodology averaged forty cents less. The Recommended Decisions’ Butterfat Adjustment restores that lost income and no more. Appendix 1.

The Recommended Decision notes the differences between the .165 and the .30 “is expected since the make allowances for whey butter and dry whey are significantly lower than the cheese make allowance.” That is not quite right. The average weighted average make allowance of the three components (protein, butter, and other solids) would be less than .165. That is because the butter make (.115) and the other solids (.137 or .159) are less than the .165. The reason the gross margin is so large is because under the federal order reform formula, there is no recognition of whey butter in the Class III price formula. The ten percent of butterfat that is not considered in the yield is the whey butter. But, the Secretary’s gross margins analysis in the Recommended Decision recognize the existence of whey butter as a value. In fact it puts a price on it—NASS AA butter minus nine cents. Id.

The variability in gross margin correlates to the variability in the butter prices. As butter prices go up, the value of whey cream (even at NASS less nine cents) goes up but there is no corresponding increase in the Class III because there is no value for whey cream in what producers receive. The Recommended Decision corrects that.
There can be no doubt that the result will be Class III prices higher than those under the federal order reform, but they are not higher than prior to that. This is not enhancement of producer prices, but a realization that for over two years, the formula has deprived producers of the full value of their milk used in Class III as has been historically the case. This gifts to the processors has to end. Even with the change, the prices will not reach the BFP era pricing. The Secretary acknowledged the FAIR Act Reforms reduced Class III by 45 cents. All of that has not been recaptured fully.

**V. Conclusion**

For the reasons explained above, the undersigned producer organizations urge the Secretary to adopt protein pricing changes she recommended in October 2001 and to do so as expeditiously as possible.

Respectfully submitted,
BENJAMIN F. YALE & ASSOC. CO., LPA

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MILSPAW & BESHORE
P.O. Box 946
Harrisburg, PA 17108-0946
APPENDIX

Chart 1 illustrates graphically the gross margins derived in the attached spreadsheet. This was done by comparing the announced Class III price for the month by an approximation of the value of the finished products such as cheese, whey, and butter. The Class III prices series compared and the period of time either they were actually used, or the data was available to calculate them are:


Using data officially noticed at the hearing, or part of the hearing record we have identified product price series that best approximates the same time series as the Class III Price.

In order to make the best comparisons possible, the cheese, butter, and whey price data that, as reported in Dairy Market News, coincides with or is directly used to calculate the past or Current Federal Order Class III price for each commodity price series. As a result, the data used for calculating gross margin for the two reform price series, and the Basic Formula Price is slightly different.

<table>
<thead>
<tr>
<th>BUTTER</th>
<th>WHEY</th>
<th>CHEDDAR CHEESE</th>
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<tbody>
<tr>
<td>Basic Formula Price</td>
<td>CME AA</td>
<td>Central States Avg.</td>
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<tr>
<td>Current Formula Class III</td>
<td>NASS AA</td>
<td>NASS Whey</td>
</tr>
<tr>
<td>Recommended Decision</td>
<td>NASS AA</td>
<td>NASS Whey</td>
</tr>
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</table>

The whey butter is the NASS price less nine cents. The formulas used for the manufacturing yields for Butter, whey cream, and whey reflect the factors adopted by USDA in their recommended decision. Milk of the standard test used to calculate 3.5% prices (3.50% butterfat, 2.99% true protein, 5.69% other solids) were used to determine these yields.

Cheddar Yield: \[(3.5 \times 90\% + 2.99 \times 82.9\% - 0.1) \times 1.09 / 0.62 = 9.7198\] pounds per cwt.

Whey Butter Yield: \[(3.5 \times 10\%) = 0.3500\] pounds per cwt.

Whey Yield \[(5.69 / 0.968) = 5.8781\] pounds per cwt.
Gross Margin Comparisons: Old Basic Formula Price, Current Class III Formula, and Class III Recommended Decision

For Months Data Available, 01/96 - 12/01

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**CURRENT CLASS III FORMULA**

| FMMO Class III, 3.5% Butterfat | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Product Prices Related to Current Class III:** | | | | | | | | | | | | | | | | | | | | |
| NASS Cheddar | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NASS AA Butter | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NASS Whey | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Product Values Related to BFP:** | | | | | | | | | | | | | | | | | | | | |
| Whey Butter (0.4268#) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cheddar Cheese (9.7198#) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dry Whey (5.8781#) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Gross Product Value** | | | | | | | | | | | | | | | | | | | | |
| **Gross Margin:** | (Product Value - Current Class III) | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |

**RECOMMENDED DECISION**

| Rec. Dec. Class III, 3.5% Butterfat | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Product Prices Related to Current Class III:** | | | | | | | | | | | | | | | | | | | | |
| NASS Cheddar | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NASS AA Butter | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NASS Whey | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Product Values Related to BFP:** | | | | | | | | | | | | | | | | | | | | |
| Whey Butter (0.4268#) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cheddar Cheese (9.7198#) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Dry Whey (5.8781#) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Gross Product Value** | | | | | | | | | | | | | | | | | | | | |
| **Gross Margin:** | (Product Value - Rec. Decision CI) | | | | | | | | | | | | | | | | | | | | |
Gross Margin Comparisons: Old Basic Formula Price, Current Class III Formula, and Class III Recommended Decision

For Months Data Available, 01/96 - 12/01

|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### OLD BASIC FORMULA PRICE (BFI)

**BFP, 3.5% Butterfat**


**Product Prices Related to BFP:**

| CME “AA” Butter | $1.4650 | $1.5892 | $1.3021 | $1.1932 | $1.3918 | $1.3452 | $1.3788 | $1.5465 | $1.8618 | $2.0085 | $2.1730 | $2.7566 | $2.4089 | $1.7447 | $1.4131 | $1.4222 | $1.3153 | $1.2927 | $1.0298 |
| NCE/CME 404 Blocks | $1.3294 | $1.3377 | $1.2784 | $1.1465 | $1.4163 | $1.3793 | $1.3207 | $1.2034 | $1.4038 | $1.5656 | $1.6320 | $1.6556 | $1.7334 | $1.8537 | $1.7077 | $1.7595 | $1.3301 | $1.3092 | $1.3131 |
| NASS Block Cheddar | $0.3213 | $0.3275 | $0.3324 | $0.2841 | $0.2430 | $0.2380 | $0.2274 | $0.2303 | $0.2900 | $0.2790 | $0.2815 | $0.2840 | $0.2910 | $0.2470 | $0.2452 | $0.2026 | $0.1875 | $0.1863 | $0.1726 |

**Product Values Related to BFP:**

- Whey Butter (0.42668t)
  - $0.5969 | $0.6399 | $0.5173 | $0.4708 | $0.5556 | $0.5357 | $0.5001 | $0.6216 | $0.7562 | $0.8188 | $0.8990 | $1.1381 | $0.9697 | $0.7062 | $0.5667 | $0.5020 | $0.5133 | $0.4011 | $0.4434 |

- Cheddar Cheese (9.7198t)

- Dry Whey (0.8781t)
  - 1.8886 | 1.9251 | 1.9539 | 1.6700 | 1.4284 | 1.4049 | 1.3367 | 1.3537 | 1.5165 | 1.6418 | 1.6547 | 1.6694 | 1.4754 | 1.4519 | 1.4413 | 1.1909 | 1.1021 | 1.0951 | 1.0146 |

**Gross Product Value**


**Gross Margin:**

- (Product Value - BFP) | $2.57 | $2.61 | $1.61 | $2.66 | $2.43 | $2.58 | $2.79 | $2.82 | $2.91 | $3.42 | $3.80 | $3.47 | $3.12 | $2.85 | $2.59 | $4.00 | $2.71 | $2.37 | $2.45 |

### CURRENT CLASS III FORMUL

**FMCO Class III, 3.5% Butterfat**

|          | $14.96 | $16.22 | $16.80 | $17.16 | $15.61 | $11.28 | $11.43 | $11.44 | $10.77 |

**Product Prices Related to Current Class III:**

- NASS Cheddar |          |          |          |          |          |          |          |          |          |
- NASS AA Butter |          |          |          |          |          |          |          |          |          |
- NASS Whey |          |          |          |          |          |          |          |          |          |

**Product Values Related to BFP:**

- Whey Butter (0.4266t)
  - $1.0230 | $1.0320 | $0.7836 | $0.5405 | $0.5657 | $0.5157 | $0.5172 | $0.3952 | $0.4217 |

- Cheddar Cheese (9.7198t)

- Dry Whey (0.8781t)
  - $1.5001 | 1.4954 | 1.4254 | 1.4319 | 1.2961 | 1.1151 | 1.1268 | 1.0845 | 1.0222 |

**Gross Product Value**


**Gross Margin:**

- (Product Value - Current Class III) | $3.50 | $3.42 | $3.17 | $2.93 | $2.96 | $2.92 | $2.92 | $2.80 | $2.82 |

### RECOMMENDED DECISION

**Rec. Dec. Class III, 3.5% Butterfat**

|          | $15.93 | $17.12 | $17.46 | $17.58 | $16.05 | $11.67 | $11.82 | $11.71 | $11.07 |

**Product Prices Related to Current Class III:**

- NASS Cheddar |          |          |          |          |          |          |          |          |          |
- NASS AA Butter |          |          |          |          |          |          |          |          |          |
- NASS Whey |          |          |          |          |          |          |          |          |          |

**Product Values Related to BFP:**

- Whey Butter (0.4266t)
  - $1.1023 | 1.0302 | 0.7836 | $0.5405 | $0.5657 | $0.5157 | $0.5172 | $0.3952 | $0.4217 |

- Cheddar Cheese (9.7198t)

- Dry Whey (0.8781t)
  - $1.5001 | 1.4954 | 1.4254 | 1.4319 | 1.2961 | 1.1151 | 1.1268 | 1.0845 | 1.0222 |

**Gross Product Value**


**Gross Margin:**

- (Product Value - Rec. Decision Ct) | $2.52 | $2.52 | $2.52 | $2.51 | $2.51 | $2.52 | $2.52 | $2.53 | $2.52 |
### OLD BASIC FORMULA PRICE (BFI)

**BFP, 3.5% Butterfat**

| Jun-99 | Jul-99 | Aug-99 | Sep-99 | Oct-99 | Nov-99 | Dec-99 | Jan-00 | Feb-00 | Mar-00 | Apr-00 | May-00 | Jun-00 | Jul-00 | Aug-00 | Sep-00 | Oct-00 | Nov-00 | Dec-00 | Jan-01 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 11.42  | 13.59  | 15.79  | 16.26  | 11.49  | 9.79   | 9.63   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |

Product Prices Related to BFP:

- **CME “AA” Butter**: $1.4931 1.3444 1.3963 1.3201 1.1248 1.0725 0.9163
- **NASS Block Cheddar**: $1.2747 1.4702 1.7213 1.8023 1.4388 1.2143 1.1319
- **Central States Whey**: 0.1737 0.1809 0.1972 0.2079 0.1938 0.1834 0.1875

### CURRENT CLASS III FORMULAE

**FMMO Class III, 3.5% Butterfat**

| Gross Product Value | $ 14.01 | 15.89 | 18.45 | 19.27 | 15.57 | 13.30 | 12.46 |

Gross Margin:

- **(Product Value - BFP)**: $ 2.59 2.30 2.66 3.01 4.08 3.51 2.83

### RECOMMENDED DECISION

**Rec. Dec. Class III, 3.5% Butterfat**

| Gross Margin | **(Product Value - Rec. Decision Cl)**: $ 2.52 2.53 2.52 2.52 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 | 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 |

**Product Prices Related to Current Class III**:
### Old Basic Formula Price (BFI)

**BFP, 3.5% Butterfat**

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**Gross Margin:**


### CURRENT CLASS III FORMUL

**FMMO Class III, 3.5% Butterfat**

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**Product Prices Related to Current Class III:**

**NASS Cheddar** $1.1467 $1.2737 $1.3423 $1.5129 $1.6221 $1.6573 $1.6693 $1.7085 $1.5591 $1.2322 $1.2762 $1.3638 $1.8643 $1.0245 $0.2497

**NASS AA Butter** $1.3143 $1.4942 $1.7126 $1.8527 $1.9563 $1.9094 $1.9990 $2.1198 $1.4701 $1.3040 $1.2994 $1.4117 $2.6726 $0.8820 $0.4178

**NASS Whey** $0.2526 $0.2406 $0.2446 $0.2590 $0.2764 $0.2862 $0.2886 $0.2871 $0.2835 $0.2823 $0.2868 $0.2180 $0.2886 $0.1711 $0.0416

**Product Prices Related to BFP:**

**Whey Butter (0.4268#)** $0.5225 $0.5993 $0.6925 $0.7523 $0.7837 $0.7765 $0.8148 $0.8663 $0.5890 $0.5181 $0.5119 $0.5641 $1.1023 $0.3380 $0.1783


**Dry Whey (5.8781#)** $1.5054 $1.4143 $1.4378 $1.5224 $1.6247 $1.6623 $1.6964 $1.6876 $1.6664 $1.6594 $1.6858 $1.2817 $1.6964 $1.0057 $0.2447


**Gross Margin:**

(Product Value - Current Class III) $2.93 $3.01 $3.10 $3.16 $3.18 $3.17 $3.21 $3.26 $2.99 $2.92 $2.91 $2.97 $3.50 $2.75 $0.17

### RECOMMENDED DECISION

**Rec. Dec. Class III, 3.5% Butterfat**

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**Product Prices Related to Rec. Decision Class III:**

**NASS Cheddar** $1.1467 $1.2737 $1.3423 $1.5129 $1.6221 $1.6573 $1.6693 $1.7085 $1.5591 $1.2322 $1.2762 $1.3638 $1.8643 $1.0245 $0.2497

**NASS AA Butter** $1.3143 $1.4942 $1.7126 $1.8527 $1.9563 $1.9094 $1.9990 $2.1198 $1.4701 $1.3040 $1.2994 $1.4117 $2.6726 $0.8820 $0.4178

**NASS Whey** $0.2561 $0.2406 $0.2446 $0.2590 $0.2764 $0.2862 $0.2886 $0.2871 $0.2835 $0.2823 $0.2868 $0.2180 $0.2886 $0.1711 $0.0416

**Product Prices Related to BFP:**

**Whey Butter (0.4268#)** $0.5225 $0.5993 $0.6925 $0.7523 $0.7837 $0.7765 $0.8148 $0.8663 $0.5890 $0.5181 $0.5119 $0.5641 $1.1023 $0.3380 $0.1783


**Dry Whey (5.8781#)** $1.5054 $1.4143 $1.4378 $1.5224 $1.6247 $1.6623 $1.6964 $1.6876 $1.6664 $1.6594 $1.6858 $1.2817 $1.6964 $1.0057 $0.2447

**Product Value** $13.17 $14.39 $15.18 $16.98 $18.17 $18.57 $18.74 $19.16 $17.41 $14.15 $14.60 $15.10 $20.09 $11.65 $2.69

**Gross Margin:**

(Product Value - Rec. Decision Cl) $2.53 $2.52 $2.53 $2.52 $2.52 $2.52 $2.52 $2.52 $2.53 $2.53 $2.53 $2.53 $2.53 $2.53 $2.51 $0.01