

**CERTIFIED
TRANSCRIPT**

NATIONAL FEDERAL MILK MARKETING ORDER
PRICING FORMULA HEARING

DOCKET NO.: 23-J-0067; AMS-DA-23-0031

Before the Honorable Channing D. Strother, Judge

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Carmel, Indiana
September 19, 2023

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Reported by:

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26 (Please note: Appearances for all parties are subject to
27 change daily, and may not be reported or listed on
28 subsequent days' transcripts.)

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1 TUESDAY, SEPTEMBER 19, 2023 - - MORNING SESSION

2 THE COURT: On the record.

3 I'll swear you in again. Raise your right hand.

4 DANIEL MUNCH,

5 Being first duly sworn, was examined and

6 testified as follows:

7 THE COURT: I understand you're self-represented

8 for a few minutes here, so you may -- I guess you gave

9 your background and all previously.

10 THE WITNESS: I have not been up here, yet, so --

11 THE COURT: All right. Introduce yourself, who
12 you work for, business address.

13 THE WITNESS: Sounds good. My name is Daniel
14 Munch, D-A-N-I-E-L, M-U-N-C-H. Business address is 600
15 Maryland Avenue, Southwest, Suite 1000W, Washington, DC,
16 20024.

17 I'm not attempting to characterize myself as an
18 expert, although I would like to provide some background
19 information on myself for context.

20 I am the economist for the American Farm Bureau
21 Federation, the largest general farm organization in the
22 nation, which gets to boast itself as the voice of
23 agriculture due to its diverse membership in all 50 states
24 and Puerto Rico, and nearly 6 million farmer and rancher
25 families.

26 As a general farm organization, we represent dairy
27 farmers, but also the farmers who grow the feed for dairy
28 farmers. The farmers and ranchers who grow beef, poultry,



1 pork, lamb, fish and all other forms of animal protein, as
2 well as major row crops, specialty crops, horticulture,
3 forestry, and everything in between that provides us and
4 the rest of the world, food, fiber, and fuel.

5 As such, in my position I not only cover dairy
6 markets and policy, I also cover specialty crop markets,
7 transportation infrastructure, invasive and endangered
8 species, public lands, disaster assistance, aquaculture,
9 and a number of other topics.

10 I have been on the economics team of AFBF for over
11 two and a half years. I received my Bachelor's of science
12 from the University of Connecticut -- go Huskies -- with a
13 double major in livestock management and policy and
14 resource economics. I then went on to receive my Master's
15 of science from Cornell University in applied economics
16 and management, with a focus on agricultural and food
17 economics.

18 My Master's thesis research was in dairy marketing
19 topics, estimating the value of cooperative membership,
20 and running analysis on milk pricing topics in the
21 Northeast. Sorry.

22 THE COURT: Do you want to keep going or do we
23 want to switch off? Do you have a statement that you
24 would like to present for the record today?

25 THE WITNESS: Oh, I wasn't -- I still had a little
26 bit more.

27 THE COURT: Oh, I'm sorry.

28 THE WITNESS: They were asking me to slow down.



1 THE COURT: Oh, okay.

2 THE WITNESS: I paused for a second.

3 I've worked on Capital Hill in agricultural policy
4 issues in the House of Representatives for Farm Credit
5 East, and as a protein commodity analyst for Urner Barry,
6 a leading animal product price supporting company.

7 And just to put things into context, I took one of
8 the last iterations of Dr. Novakovic's virtual dairy
9 markets classes. I was -- Dr. Chris Wolf came in in my
10 last semester, another witness, and then I was also a
11 student of Dr. Harry Kaiser's in his --

12 (Court Reporter clarification.)

13 THE WITNESS: And I was also a student of
14 Dr. Harry Kaiser's, another previous witness, in my first
15 semester of grad school. All to say, that there's a
16 wealth of knowledge out there, and I appreciate the
17 opportunity to be up here on behalf of the American Farm
18 Bureau Federation.

19 I will now be reading AFBF's statement listed
20 as -- is it AFBF-3, Roger?

21 DR. CRYAN: Yes.

22 THE COURT: Let's mark AFBF-3, Exhibit 222, for
23 identification.

24 (Thereafter, Exhibit Number 222 was marked
25 for identification.)

26 THE COURT: You may continue with your statement.

27 THE WITNESS: Thank you.

28 The American Farm Bureau Federation has nearly



1 6 million members in all 50 states and Puerto Rico,
2 including many thousands of cooperative and independent
3 dairy farmers. All of these dairy farmers are indirectly
4 or mostly directly affected by the pricing provisions of
5 the Federal Milk Marketing Orders. These dairy farmers
6 play a crucial role in the development of AFBF dairy
7 policy. Every Farm Bureau position and proposal is based
8 explicitly on that policy, developed through a grassroots
9 process in which farmers make the decisions every step of
10 the way.

11 AFBF submitted nine proposals for consideration in
12 this hearing, and appreciates the opportunity to address
13 the four that were accepted by USDA, as well as the clear
14 direction on what may be needed to advance the rest.

15 A fundamental focus of AFBF's proposals is a
16 reduction or elimination of negative producer price
17 differentials and the depooling they cause. We believe
18 that an orderly pool is the key to an orderly marketing --
19 a key to orderly marketing and ensuring Federal Orders
20 continue to benefit farmers, cooperatives, processors, and
21 consumers. The key to an orderly pool, in turn, is above
22 all, the proper alignment of the four class prices.

23 This statement covers Category 3, Class III, and
24 Class IV formula factors, and includes AFBF's response to
25 Proposal 7 made by the National Milk Producers Federation;
26 Proposal 8 made by the Wisconsin Cheese Makers
27 Association; and Proposal 9 made by the International
28 Dairy Foods Association.



1 AFBF supports adjusting Make Allowances to reflect
2 the changes in costs and technology, following the same
3 general logic as NMPF's petition. We believe, however,
4 that such adjustments cannot be fairly undertaken except
5 using the data from a mandatory and audited USDA survey of
6 at least the plants participating in the NDPSR survey.

7 At the time of Order Reform, product formula
8 prices were instituted using a combination of voluntary
9 survey and a mandatory and audited survey.

10 The voluntary survey conducted by Dr. Stephenson,
11 among others, and used as the primary source for Order
12 Reform, was one of a series of studies that had been
13 undertaken as a means of evaluating and benchmarking plant
14 costs for the benefit of plant operators.

15 Because that survey's purpose had not previously
16 been the setting of regulatory parameters, there was no
17 obvious bias in the self-selection of participants. Each
18 participant was, presumably, interested in a full picture
19 of costs, including seeing how they stacked up.

20 However, more recent surveys, particularly the
21 2021 update conducted by Dr. Stephenson, was commissioned
22 by USDA with the clear intention of making its results
23 available for proposals to update the Make Allowance, and
24 its update in 2023 was also explicitly commissioned for
25 regulatory purposes.

26 This, unfortunately, creates an equally clear
27 incentive for dairy manufacturers to be selective in their
28 choice to participate, and an unfortunate temptation to be



1 creative in the accuracy of their reporting. As a result,
2 whatever value the original voluntary survey had for the
3 original development of Make Allowances in the price
4 formulas, has been substantially undermined by potential
5 bias in the survey.

6 The publicly released 2021 survey, for example,
7 represents only 60% of the nonfat dry milk plants
8 participating in the NDPSR, 29% of the dry whey plants,
9 24% of cheddar cheese plants, and 20% of butter plants.
10 The conclusion must be that it will be unfair to increase
11 the Make Allowances based on this survey.

12 And those values are from a webinar that Dr. Mark
13 Stephenson did for USDA on the first survey. Those
14 statistics were directly from that webinar posted on
15 USDA's website.

16 IDFA contends that the 2023 update to
17 Dr. Stephenson's study captures a higher percentage of
18 product plants and volume, therefore, nullifying our
19 concerns. Even with the improved sample size, nearly
20 45% of cheese and nearly 50% of whey volume are still not
21 captured. Our members have expressed ardent concerns over
22 plants who elect not to participate in voluntary surveys
23 that are used to inform regulatory decisions. Even small
24 variations in reported cost numbers could lead to
25 Make Allowance changes that unfairly substantially reduce
26 the price paid to farmers.

27 AFBF also has concerns with the projections made
28 by Dr. Schiek on behalf of the International Dairy Foods



1 Association. The regression analysis used to estimate the
2 source of changes in the labor, utility, and other costs,
3 are based only on 15 annual observations for 2000 through
4 2016, which is a relatively small sample size for any
5 regression analysis, but especially for equations with
6 three to five explanatory variables, including the
7 constant term, and is even smaller when multiple
8 specifications have been explored.

9 In addition, the use of dummy variables, which are
10 often applied to explain data in the years that the
11 underlying estimation doesn't fit, raises further concerns
12 about the real fit of the regression analysis.

13 And as problematic as Dr. Schiek's estimation of
14 the pattern of cost growth within 15 years of observed
15 data, more problematic is the extrapolation of such
16 results beyond the data period to project costs in 2022.

17 The estimation is to find the best fit within
18 15 years, which often leads to parameters that help fit
19 the end years, but often becomes unreliable when extended
20 to years before or after the study period. A simpler
21 analysis would have been easier to interpret and would
22 have allowed better evaluation of how reasonable the
23 extrapolated results may be. In this case, a relatively
24 complicated model based on 15 years of data is projected
25 out for six years, generating questionable results.

26 Regarding the USDA tradition of using two
27 different cost surveys, there is an old saying, "A person
28 with one watch always knows what time it is; a person with



1 two watches never knows what time it is."

2 Such is the problem with using two significantly
3 different sets of survey results and blending them into
4 one result. This is more an art than a science, and USDA
5 was put in the difficult position of applying such an art
6 in the past. It is better that we have one very accurate
7 watch, such as a mandatory and audited survey of
8 processing plants.

9 The last time we knew what time it was, was in
10 California in 2016, as the last mandatory audited survey
11 of U.S. dairy processing costs were those of all
12 manufacturing plants in the state of California in 2016,
13 conducted and audited by the California Department of Food
14 and Agriculture.

15 This full accounting of processing costs was the
16 useful component of the overall data used to set
17 Make Allowances at the time of Order Reform, because
18 California has been the largest milk producing state since
19 1993, with over 18% of U.S. production in 2022. It's been
20 the largest butter producing state since about the same
21 time with roughly a third of current U.S. production, and
22 the largest nonfat milk producing state with 44% of U.S.
23 production in 2022. California is also the second largest
24 cheese producing state, with 17% of U.S. production in
25 2022.

26 Since the 2016 California survey was a
27 mandatory -- was mandatory, a representative sample of
28 commodity dairy products was captured providing an



1 important check to voluntary surveys. The CDFA survey was
2 discontinued in 2017 after the promulgation of a Federal
3 Order in California.

4 Although it did not evaluate product yields, this
5 survey would provide a basis for a conservative one-time
6 increase in Federal Order Make Allowances, preferable to
7 those proposed by NMPF and IDFA. These numbers are nearly
8 in line with both NMPF's proposal and with IDFA's
9 proposal, proposed initial Make Allowance increases.

10 Our conclusion is that any fair update of the
11 Make Allowance must be based on a mandatory and audited
12 survey of costs and yields of at least the plants
13 participating in the National Dairy Product Sales Report.

14 Currently, only the 2016 CDFA survey comes close
15 to this. We at Farm Bureau are working with NMPF and IDFA
16 to pursue language in the upcoming Farm Bill that would
17 direct USDA to conduct such a survey. AFBF, NMPF, and
18 IDFA, all by their own testimony, hope to have the
19 official data -- survey data as soon as it practicable.

20 Given the continued investment in dairy processing
21 capacity, it is a real question whether the
22 Make Allowances are too low at all. Moving forward with
23 increases now could easily go too far.

24 Handler groups have often argued that they cannot
25 reap the benefits of charging higher prices in the
26 marketplace because those prices get looped into the NDPSR
27 survey, meaning the Make Allowance is the only monetary
28 value they can operate off of. This point holds less



1 water when less than 10% of butter, about 10% of all
2 cheese, 28% of whey, and 52% of nonfat dry milk volume is
3 captured in the NDPSR.

4 Combined for the presented commodities, the NDPSR
5 captured 19.6% of total volume in 2000; 18.3% of
6 production volume in 2011; and 14.8 of total production
7 volume in 2022, for an average decline in 1.1% in total
8 production captured annually.

9 On average, less than 20% of the total production
10 of cheese, butter, nonfat dry milk, and whey, have been
11 captured in the NDPSR survey, with a clear decline in the
12 percentage of butter, whey, and nonfat dry milk captured.

13 Considering the various other dairy products that
14 are sold and not included in the NDPSR, the true volume of
15 dairy products captured by the NDPSR is likely much lower
16 than 14.8%.

17 Additionally, a comparison of the 2023 NDPSR
18 survey to the latest National Agricultural Statistic
19 Survey, Dairy Product Survey, reveals that 17.2% of butter
20 processing plants, 61.4% of nonfat dry milk plants, 53.3%
21 of dry whey plants, and 12% of cheddar cheese plants are
22 captured by the NDPSR survey.

23 In total, 7.2%, a drop from 7.8% in 2018, of all
24 manufacturers that produced one or more dairy products are
25 captured in USDA's mandatory price reporting. This means
26 that more than 92% of dairy processing plants are not
27 required to report the prices for the dairy products they
28 manufacture and sell.



1 Given these statistics, one could easily argue
2 that handlers can benefit from the sale of the substantial
3 product volume and product varieties not currently
4 captured within the NDPSR and are not exclusively reliant
5 on the Make Allowance to make ends meet. This is
6 especially true of handlers to diversify their operations,
7 a tactic that many farmers are told to use to protect
8 against revenue uncertainty.

9 This does not mean -- this does not mean
10 Make Allowances are not important. Our members recognize
11 they are. But they also recognize the system does not
12 restrict all handlers in terms of covering costs. Only a
13 mandatory and audited survey of costs and processing
14 yields can provide a fair basis for adjusting
15 Make Allowances and yield factors within the current
16 pricing structure, just as it has been clearly established
17 that only a mandatory and audited survey of manufacturers'
18 prices can provide a fair basis for setting the monthly
19 milk and component prices used in the Federal Orders.

20 We believe that such a survey should be conducted
21 once every two years in order to appropriately balance the
22 value of the data with the burden on processors.

23 This is a -- this is close to a realistic estimate
24 of the time it takes to undertake a Federal Order hearing
25 from petition to implementation. More frequent surveys
26 would be unproductive, although the biannual survey could
27 collect two years of data.

28 And a final note on using input price indices.



1 Proposal 9 uses processing input costs to update mandatory
2 audited survey data from California from 2003 to 2016.
3 AFBF opposes using indexing to adjust Make Allowances.
4 Over time, input price increases tend to be at least
5 partly offset by productivity increases. This was
6 observed in the record of 2007 price hearing, in which it
7 was suggested that labor productivity growth, for example,
8 more or less matched wage increases. This is why the full
9 plant costs and yield accounting is critical to any fair
10 adjustment of the Make Allowance.

11 And we have some resources linked there.

12 THE COURT: Do you want to take over, Dr. Cryan?

13 Actually, I did neglect to ask whether the
14 statement was prepared by you, under your supervision?

15 THE WITNESS: Yes, Roger and I worked on it
16 together.

17 THE COURT: Close enough.

18 And did you have any corrections?

19 THE WITNESS: There was one small typo where I
20 think there was an "as," I think he meant "of." But -- on
21 page 4 in the second paragraph. I believe it said in the
22 first sentence, "and yields at at least," when it should
23 say "of at least."

24 THE COURT: Very good.

25 DR. CRYAN: Well, that works either way.

26 THE COURT: You may take over.

27 DIRECT EXAMINATION

28 BY DR. CRYAN:



1 Q. Okay. Thank you for testifying, Mr. Munch. It's
2 good to see you.

3 Could you talk a little bit about the policy
4 process that led this beginning in -- well, just
5 generally, including the event in Kansas City?

6 A. Yeah, absolutely.

7 So AFBF is a grassroots organization. We have
8 over 2,600 county farm bureaus who are all members of the
9 50 State Farm Bureaus and Puerto Rico, and all of those
10 farm bureaus are members of AFBF. They all have
11 county-level policies that are developed and voted on at
12 the county level. The counties submit policies to be
13 reviewed at the state level. And if they are state
14 specific, they will vote and approve policy at the state
15 level. And then any policy that is federal in nature will
16 make it up through the counties, through the states, and
17 get approved by both the presidents of all the states and
18 Puerto Rico, in December resolutions, followed by delegate
19 voting session, which has a few hundred farmers at our
20 annual meeting every January.

21 Q. And those farmers are all elected to those
22 positions?

23 A. Yeah. All those farmers are elected to those
24 positions by their peers, by other members.

25 Back in 2019, one of the -- one of the -- one
26 other thing that the members can do is provide
27 recommendations to the board, and one of the
28 recommendations was to hold a dairy working group. And



1 the dairy working group would have equal representation of
2 each Farm Bureau region. The Farm Bureau regions, being
3 the Midwest, Northeast, West, and South, have two dairy
4 farmers from each of those regions -- sorry, excuse me --
5 three dairy farmers from each of those regions, to review
6 work with industry experts and come up with a list of
7 recommendations to give to our states for policy
8 development. That dairy working group was re-recommended
9 both in 2021 and 2022, so we have had a total of three
10 years of dairy working groups.

11 In the 2022 dairy working group, one of their big
12 recommendations coming off of the 2021 working group was
13 that the industry needed to get in a room, get together,
14 and talk about Federal Order issues. And this was in
15 direct response to Secretary Vilsack's request for
16 everybody to get into a room.

17 So they saw that need, and they requested in a
18 board recommendation -- in a recommendation to the board,
19 that AFBF hold a national dairy Federal Order forum that
20 brought together processors, co-ops, other industry
21 adjacent officials, USDA, and most importantly, farmers,
22 to discuss Federal Order topics. So it was meant to be
23 very educational as well, but also to come up with
24 consensus.

25 So we had over 200 participants, most of which
26 were dairy farmers, over 150 were dairy farmers, from 35
27 states. And it was set up in such a way that we had about
28 21 tables in the room, each with eight to nine people at



1 them, and they were specifically assigned seating based on
2 regional diversity, making sure you have co-op and
3 processor representation at each table, making sure you
4 had people who sold to an independent co-op at each table.
5 And they were all given discussion questions throughout
6 the conference, related to many of the topics we're
7 discussing at this hearing.

8 Consensus was measured by how many tables reported
9 consensus on a particular item. So, for instance, we had
10 21 tables at the forum. All 21 tables supported switching
11 back to the higher-of unanimously, about 19 supported
12 increasing Class I differentials, and the same amount a
13 mandatory and audited cost survey.

14 And it is important to note that not all tables
15 discussed all the issues. So just because there is less
16 tables doesn't mean that they didn't support it, they just
17 might not have discussed it.

18 So the forum brought a lot of folks together. A
19 lot of the people that have been in this room attended
20 that forum, spoke at that forum.

21 And we really -- our members utilized the outcome
22 of that forum for this January's policy process. So many
23 of the new policies related to dairy that we have were
24 directly an outcome of what the industry at our forum came
25 up with.

26 So I think it really represents the strong
27 grassroots nature, our policy is our farmer's policy, and
28 you know, we get to work on behalf of them.



1 Q. And for this topic, Farm Bureau policy
2 representing producers is what?

3 A. Yes. So for Make Allowance specifically, we only
4 support Make Allowance increases based on mandatory and
5 audited surveying. They also -- it's also very important
6 to them that yields are updated in accordance with
7 Make Allowances.

8 We do not oppose updates to Make Allowances. They
9 clearly want Make Allowances that are fair. We heard last
10 week in testimony, that even small cent changes have a
11 major impact on dairy farmers' bottom line, so they want
12 to buffer against any wrongful increases.

13 Q. And what's the significance of Farm Bureau
14 presenting the -- and presenting and presenting an
15 overview of the California -- the CDFA numbers from 2016?

16 A. So our main -- our main goal of including the 2016
17 CDFA survey and in this testimony, was to show that that's
18 the last time we had an audited and mandatory survey. We
19 understand and we realize it's only California, so it is
20 not representative national costs. But in our mind it's
21 more preferable than the other methodologies that have
22 been -- that have been expressed by other groups.

23 We don't intend -- you know, we realize some of
24 the other testimony that was brought up last week in terms
25 of labor cost differences, that it's not national in
26 nature, but it's still preferable to the other
27 methodologies we have seen.

28 Q. And would you just say a few words again,



1 elaborate on the importance of yields and why that
2 matters?

3 A. Yeah. You know, as we're well aware, as
4 technology improves, you know, even as farmers get better
5 at their jobs, often yields are increased. And in order
6 to offset, you know, and compensate for those increases in
7 yields in the formula, any increases in Make Allowances
8 should be offset by updated yields. Without updating
9 both, you sort of have an inequality in which piece of the
10 industry you're favoring in our members' opinions. So we
11 want to make sure that yields and Make Allowances are
12 updated together.

13 And I recall in Dr. Stephenson's testimony, he
14 also agreed that any sort of survey that we have should
15 account for all factors that are used in -- to set a
16 pricing formula. So we agree with Dr. Stephenson there.

17 Q. And you saw the letter that Mr. Miltner provided
18 the hearing about, from IDFA made very clear that the
19 intention of the last update of the survey was for
20 regulatory purposes, right?

21 A. Yes. So I believe that was Exhibit 179, but the
22 first sentence of that paragraph was in anticipation of a
23 possible USDA hearing to consider possible adjustments to
24 Make Allowances, and that was in their e-mail to call for
25 survey participants. So that -- that e-mail was sent out
26 specifically for regulatory purposes.

27 So -- so our concern is, folks might not have
28 participated or might have chosen maybe the lower side of



1 averages when they reported to that survey because they
2 knew it might be used in this context.

3 And we have already heard from a number of
4 witnesses, very large processing witnesses, that they did
5 not even participate in that updated survey. So that is
6 concerning to our members.

7 Q. And even without being dishonest, a processor
8 could choose any of a number of legitimate cost accounting
9 approaches.

10 A. Correct. And I think it's important to note, you
11 know, he mentioned any outliers would be a red flag and he
12 would reach out. But it's easy to have a lower number and
13 not an outlier number, so I think that's a very different
14 issue.

15 Q. Do you have anything else you would like to add?

16 A. No.

17 Q. Well, thank you.

18 Mr. Munch is available for cross-examination.

19 THE COURT: Any questions for this witness?

20 CROSS-EXAMINATION

21 BY MS. HANCOCK:

22 Q. Good morning, Mr. Munch -- Dr. Munch.

23 A. Not doctor.

24 Q. Just Mr. I don't think I have ever been in a room
25 with so many Ph.D.s, so it's better to err on the side of
26 confidence.

27 Okay. So thank you so much for your testimony. I
28 just had a couple of questions.



1 When I go to page 3 of your testimony, you have
2 included there a comparison of the makes and costs. But
3 this is you just tracking the current numbers compared to
4 where CDFA was in 2016, and then the proposals that have
5 been put forth by National Milk and IDFA?

6 A. Correct.

7 Q. Okay. And this was just a way that you could
8 visually see what the differences were in comparing the
9 data?

10 A. Yes, it was solely a reference for the readers.

11 Q. And I think Dr. Cryan just clarified this, but the
12 proposal or the position of AFBF is that if you are going
13 to use the data, you want it to be mandatory audited cost
14 survey data, and the last one that you are aware of is the
15 2016 CDFA survey. Is that fair?

16 A. Correct.

17 Q. Do you know what the CDFA's process was in
18 collecting that data that they used from that 2016 survey
19 going backward?

20 A. I believe Dr. Schiek or -- or another witness had
21 gone over some of their process. I can't recall the
22 specifics, but just from what he mentioned, that's my
23 knowledge of it.

24 Q. Okay. And did you hear in the description of the
25 process that CDFA undertook that not only did they go out
26 and do the -- the cost -- the mandatory cost survey, but
27 in addition to that, they -- once they collected that
28 data, that they were able to do a subjective analysis of



1 it and apply kind of a totality perspective around that
2 data in order to set their Make Allowances?

3 A. I remember the first part. The subjective part, I
4 do not recall. But I don't oppose that that was in there.

5 Q. Okay. Do you think it would be important to be
6 able to put actual context around the numbers collected in
7 order to make sure that the data reflects actual market
8 conditions that are currently existing?

9 A. Absolutely.

10 Q. And we have had some recent examples that we have
11 talked about throughout this hearing, but one of them
12 would be the global pandemic and the rise in inflationary
13 costs that we have seen over the last few years.

14 A. Agreed.

15 Q. Okay. And then other things like, you know, wars
16 or conflicts with Ukraine and Russia, that's another
17 example of things that would affect or impact numbers at
18 least on a -- on a temporary, if not a long-term temporary
19 basis?

20 A. Agreed.

21 Q. Okay. Do you think that would be important to
22 overlay against the data that's received to be able to put
23 it in the context of what's happening in the market?

24 A. I think it's important. I think it's difficult in
25 any existing methodology that we have to account for those
26 changes until we have a mandatory survey. So obviously
27 those 2016 numbers haven't been updated for those market
28 disrupting events, but neither have any other options that



1 we have. So our stance is a mandatory audited new survey.
2 But in the scheme of things, that methodology was more
3 preferable than the rest. Just that's a background
4 example.

5 Q. Okay. And it's fair to say that even with that
6 methodology from 2016 that you recognized, that there are
7 also some limitations in using that and applying that
8 across the board throughout the country in 2023 or
9 forward?

10 A. We do.

11 Q. And one of them would be that that survey is only
12 reflective of what was happening in California?

13 A. Absolutely. As I mentioned a little bit, you
14 know, we know the labor costs, energy costs, and taxes
15 even, for instance, in California, are much different than
16 the rest of the country.

17 Q. And another limitation would be that it's
18 outdated. It is already seven, eight years old based on
19 the data that was collected.

20 A. Correct.

21 Q. And then another limitation would be that
22 California is not necessarily reflective of what the cost
23 conditions are that exist throughout the country -- that's
24 just the end of it.

25 A. Correct. We were just -- as far as methodology
26 goes, the CDFA survey is the most preferable option that
27 AFBF sees based on its methodology compared to the other
28 methods. We are not contradicting or, you know, arguing



1 against any of the faults that you mentioned.

2 Q. Yeah. And then, I think you make clear in your
3 statement in Exhibit 222 that AFBF's preferred route would
4 be to get a current standardized audited mandatory cost
5 survey of the entire country.

6 A. Absolutely. And we have led the charge on the
7 language of that. The language that NMPF, IDFA agreed on
8 was drafted originally by Roger, and we have been working
9 with our lobbyists to get that agreed upon by both your
10 groups.

11 Q. Okay.

12 MS. HANCOCK: Thank you so much for your time
13 today. Appreciate it.

14 THE COURT: Mr. Rosenbaum.

15 CROSS-EXAMINATION

16 BY MR. ROSENBAUM:

17 Q. Steve Rosenbaum, International Dairy Foods
18 Association.

19 Is -- are Land O'Lakes personnel, are they liars?

20 A. I don't think so.

21 Q. Do they submit false information under oath?

22 A. I don't believe so.

23 Q. Do you believe the information they submitted
24 under oath in this hearing as to what increases they have
25 personally experienced since Make Allowances were last
26 set?

27 A. I -- I do not oppose anything that Land O'Lakes
28 has said.



1 Q. You don't?

2 A. No.

3 Q. How about their participation in Dr. Stephenson's
4 survey, you believe them when they said they did it?

5 A. I do.

6 Q. Okay. Because I mean, you have said people are
7 manipulating their submissions to the survey. That's a
8 pretty extreme accusation, isn't it, sir?

9 A. I don't think we're accusing any processor of
10 doing so. All we're stating is from our farmers'
11 perspective, without a USDA audit of the data, we have no
12 way of knowing that did not occur.

13 We -- we trust in many of the processor groups,
14 especially the ones that are farmer-owned, to report data.
15 But as in any industry, there are bad players, and I'm not
16 saying any of the witnesses we have seen here have been a
17 bad player. But there are players out there that may not
18 participate or who participate who could put forth lower
19 data.

20 Q. Well, sir, if you don't consider this an
21 accusation, I don't know what is. Look at page 2 of your
22 statement. "This, unfortunately, creates an equally
23 center incentive for dairy manufacturers to be selective
24 in their choice to participate, and an unfortunate
25 temptation to be creative in the accuracy of their
26 reporting."

27 I mean, you're saying people are lying. That's
28 what you are saying, sir.



1 A. I disagree with that premise completely.

2 Q. Really? An unfortunate temptation to be
3 inaccurate? To be creative in the accuracy of their
4 reporting? You don't think that's an accusation that
5 people lied in their submittals?

6 A. No.

7 Q. Really?

8 So you do accept that Land O'Lakes' data is
9 correct and it was submitted correctly to -- to
10 Dr. Stephenson? Is that your testimony?

11 A. I believe that Land O'Lakes, to the best of their
12 ability, completed that survey. I do not have any
13 knowledge, nor was there auditing to know, you know,
14 exactly what the results were. But I have no reason to
15 believe that Land O'Lakes was predatory in any way.

16 Q. Okay. And you have no reason to believe that
17 their data is incorrect in showing that they have
18 experienced an 81% increase over Dr. Stephenson's 2000
19 survey -- 2007 survey reports?

20 A. I have no reason to believe that that is false.

21 Q. Okay. How about AMPI, are they -- are they liars?

22 A. I'm not going to assume any -- any processor group
23 that submitted data was a liar.

24 Q. Well --

25 A. The way that the survey -- voluntary survey is set
26 up, unaudited, allows for fluctuation in how people can
27 report data.

28 Q. Yeah, but I'm trying --



1 A. I'm not accusing any processor. We are clearly
2 just saying that our farmer members have concerns with how
3 the data can be reported.

4 Q. Are some --

5 A. And everybody in this room, every witness has
6 agreed to that extent. The mandatory survey, audited, is
7 the most preferred option.

8 Q. Are some of your farmer members, members of
9 Land O'Lakes?

10 A. Absolutely.

11 Q. Okay. Have you heard from any of them suggesting
12 that their, you know, employees, submitted false data?

13 A. We have heard from many of our members of the
14 concerns they have with their processors, and not
15 particularly specific processors. But this policy
16 directly comes from them.

17 I was on a call yesterday with a farmer for
18 30 minutes concerned about behavior of handlers. And I --
19 I'm on those calls, traveling around the country is one of
20 the perks of the job, every week listening from farmers.
21 They are concerned about the data put forth by processors
22 and want the audited data.

23 Q. Are they con- -- is -- are the members of AMPI
24 concerned about the data they themselves submitted,
25 whether it was, whether they had given in to the
26 unfortunate temptation to be creative in the accuracy of
27 the reporting? Anyone from AMPI express that concern
28 about their own data?



1 A. I cannot recall any of my members from AMPI.

2 Q. Are you aware that AMPI and Land O'Lakes both
3 reported that they had experienced increases in
4 manufacturing costs that exceed the increases that -- that
5 International Dairy Foods Association is seeking in its
6 proposals?

7 A. I do not.

8 Q. How about -- how about Darigold, they are a
9 cooperative too, right?

10 A. Yes. I do not have reason to believe anything
11 that they put forth personally was incorrect.

12 Q. Okay.

13 A. I think we're kind of going in circles now.

14 Q. Well, no, no. We're trying to pin down the
15 reality, sir.

16 Are you aware that they testified that with
17 respect to all four commodities combined, they have
18 experienced an 80% increase in costs since the last
19 Make Allowances were set?

20 A. We do not oppose that processors have experienced
21 increases. We do not know to an exact extent on average
22 what that is from the current methodologies.

23 Q. Do you have suspicions about the accuracy of the
24 Darigold information?

25 A. Not specific to Darigold. We have suspicions with
26 the methodologies used in both of the proposals.

27 Q. Well, I'm -- I'm -- I'm focusing specifically on
28 your accusation that there is an unfortunate temptation to



1 be creative in the accuracy of reporting --

2 A. There is an opportunity for processors to be
3 creative. That's -- that's true.

4 Q. But you think -- do you think Darigold was
5 creative?

6 A. I do not have enough knowledge of Darigold to make
7 a characterization.

8 Q. How about California Dairies, they provided oral
9 testimony on this question that indicated -- we'll have to
10 check the transcript to make sure I have this exactly
11 right -- but I believe their testimony was that the IDFA
12 proposal reflected percentage increases in Make Allowances
13 that were consistent with the increases they had
14 experienced in their own costs of manufacture.

15 Do you have reason to doubt the accuracy of that
16 information?

17 A. I have no reason to doubt it, but it was
18 unaudited. And just like with every other processor, we
19 do not know.

20 Q. Okay. And, by the way, every -- I mean, ever
21 since -- ever since USDA relied upon the Cornell studies
22 to set the Make Allowances in the 2000 Order Reform,
23 everyone's always known the Stephenson studies were
24 something USDA relies upon for setting Make Allowances.
25 Isn't that right?

26 A. Yes. But just because there's a precedence of
27 using a flawed path or option doesn't mean we can't
28 improve the system.



1 Q. Yeah, but I'm focusing now on your separate
2 accusation, which is that because when IDFA undertook the
3 Yeoman's effort to secure the most robust survey ever
4 conducted for setting Make Allowances, that that somehow
5 was a tip-off about how the Stephenson survey might be
6 used. I mean, my God, everyone knew that since 2000,
7 didn't they, that that's what Stephenson surveys are used
8 to do, set Make Allowances?

9 A. Yes. We do not think IDFA was ill-intentioned
10 when they requested this data. But as we have seen, there
11 are numerous witnesses of very large co-ops, processors
12 that did not participate in that survey.

13 Q. You don't question -- I can go through the
14 numbers. I mean, you don't question that this is in fact
15 the most robust survey ever submitted for purposes of
16 setting Make Allowances, do you?

17 A. I don't believe Dr. Stephenson was asked that
18 question. I would trust his judgment. But he put a
19 mandatory audited survey at above the quality of that
20 survey.

21 Q. And if we could -- and everyone would like to have
22 that, and everyone knows we're not going to have that for
23 years, so --

24 A. I disagree.

25 Q. -- so we're facing that reality.

26 Do you -- but you still haven't answered my
27 question. I mean, I asked whether this is the most robust
28 survey that's ever been used or submitted for use for



1 purposes of setting Make Allowance in terms of the
2 percentage of the commodities covered.

3 Do you agree with that formulation?

4 A. The last time Make Allowances were updated was in
5 2008, which was more than half my life. So I am not aware
6 of the other surveys or how much more robust they would be
7 than the Stephenson one.

8 Q. Well, I mean, we just had extensive testimony on
9 that very question yesterday. Are you not aware of that
10 comparison that was provided as to the percentage of total
11 production that was captured by the surveys used to set
12 Make Allowances the last time as compared to the
13 percentage captured in the surveys that underlie the IDFA
14 proposals? Are you not aware of that testimony?

15 A. I am aware of the testimony. I'm also aware of
16 the testimony from Dr. Mark Stephenson that there were
17 variability and variance concerns amongst both surveys
18 that he ran.

19 Q. Well, okay. Are you aware that the percentage of
20 commodities captured by the surveys that underlie the IDFA
21 study are materially higher than the percentage of --
22 captured by the survey used to set the current
23 Make Allowances?

24 A. Yes, I said in my testimony, Dr. Stephenson's
25 newer study captures a higher percentage of product plants
26 and volume.

27 Q. Okay. Materially higher. Do you agree with that?
28 I don't think you did -- actually, I don't think



1 you did a comparison to the 2000 -- to the surveys that we
2 used to set the current Make Allowances, did you?

3 A. No, I did not.

4 Q. I missed that if it was there. Okay.

5 So -- but you do acknowledge that the percentages
6 are materially higher in the proposals now before USDA,
7 correct?

8 A. To my knowledge.

9 Q. And by the way, I mean, just -- do you know that
10 there were back-to-back hearings held in 2006 and 2007
11 that resulted in -- each resulting in increases in the
12 Make Allowances?

13 A. Yes. I -- in part of my research I went back and
14 dug into the Federal Register for that --

15 Q. I mean, do you --

16 A. -- to understand.

17 Q. Are you aware that the survey that underlay the
18 second Make Allowance revisions was conducted at a time
19 when everyone was aware of the use of the Stephenson
20 surveys for that purpose because the Stephenson surveys --
21 an earlier Stephenson survey had just been used to set the
22 first of those two Make Allowance increases, correct?

23 A. Our position is just because those processes were
24 used in the past does not mean they were not flawed and
25 want to improve the system.

26 Q. No, but I'm focusing on your specific accusation
27 that, you know, oh, processors knew this time that the --
28 when they were participating in the 2023 Stephenson



1 survey, this was going to be used for Make Allowance
2 purposes. That's the accusation I'm focusing on.

3 I mean, are you aware that when -- when
4 Make Allowances were increased the second time in the 2006
5 through 2008 time period, that everyone knew that's what
6 the Stephenson survey was going to be used for?

7 A. I do not -- you know, I do not think that that was
8 not the case. I know, in that case, USDA might have made
9 final adjustments to a combination of numbers. We believe
10 that those numbers should be based on a mandatory audited
11 survey.

12 Q. Well, I know that. But, you know, you keep going
13 to that. I'm asking a different question. I'm asking
14 whether everyone was aware, when the second of the two
15 Make Allowances increased in the 2006, 2008 timeframe,
16 based upon a second Stephenson survey that picked up some
17 additional, more recent data, that everyone knew that's
18 what the survey would be used for?

19 A. I mean, I will say then I was not actively
20 involved in the dairy industry in middle school, but I
21 was -- I will not oppose that characterization.

22 Q. Did you go back and look at the transcripts or
23 anything like that before you started making these
24 statements?

25 A. I did.

26 Q. You did?

27 A. I reviewed the transcripts in the Federal
28 Register, but I did not -- well, I should say, I reviewed



1 the rule in the Federal Register. The transcripts were
2 not available on the same web page.

3 Q. Did you -- okay. Did you try to reach out to
4 people who did participate and some of whom are still in
5 this room and have copies of those transcripts?

6 A. I'm not really sure how this relates.

7 Q. I'm just asking you whether you made an effort to
8 get hold of the transcripts.

9 A. In our drafting and in my research I communicated
10 with numerous individuals in this room to help
11 substantiate our research.

12 Q. And -- and did you ask any of them, hey, I would
13 like to -- before I start talking about whether people --
14 I mean, you know -- what -- whether people were -- for the
15 first time in 2023 knew that the purpose for which the
16 survey was going to be used, did you say to yourself, gee,
17 I better check and see what people actually knew last time
18 around?

19 A. I mean, I think we're getting -- you know, that
20 part of the testimony was related to when Make Allowances
21 were first started. The knowledge was that they were --
22 people were in -- participated in the survey wanting to
23 know all those costs. I do not contend that in later
24 iterations that they did not.

25 Q. Oh, so you -- your -- that part of your testimony
26 only relates to the survey that was done in, I don't know,
27 1997 or something like that, but not to the surveys that
28 were done in 2006 and 2007?



1 A. I believe my testimony says "as used in" -- "as a
2 primary source for Order Reform." And when we refer to
3 Order Reform, I believe that's the 2000 or around 2000
4 time period.

5 Q. Now, you are aware that -- I mean, we have had
6 testimony here from Glanbia and Hilmar, which are the two
7 largest cheddar cheese manufacturers in the United States,
8 correct?

9 A. I don't oppose that characterization.

10 Q. And you -- you are aware that they testified that
11 they submitted their data from all their cheddar cheese
12 manufacturing plants for inclusion in the 2023 Stephenson
13 study. Are you aware of that?

14 A. I'm aware.

15 Q. I mean, you say, quote, "our members have
16 expressed ardent concern over plants who elect not to
17 participate in voluntary surveys that are used to inform
18 regulatory decisions," end quote, right? You say that?

19 A. That is true, they do.

20 Q. And have you ever said to them, oh, well, gee,
21 that's -- don't worry, the biggest plants with the most
22 efficient plants, they are in the survey?

23 A. They are not at these hearings, most of our
24 members.

25 Q. Okay. Well, have you told them -- I mean, you say
26 you have had recent discussions, like in the last week
27 with your members that -- where this particular issue has
28 been raised. Isn't that right?



1 A. Yes. Our members are very concerned that the
2 survey does not encapsulate --

3 Q. And have you --

4 A. -- the majority of processors.

5 Q. And in those discussions, have you said to them,
6 we have sworn testimony from the two largest cheddar
7 cheese manufacturers in the United States, Hilmar and
8 Glanbia, that they submitted accurate testimony with
9 respect to the costs of manufacture of every single one of
10 their cheddar cheese plants?

11 A. I did not specifically go to them and say that,
12 no.

13 Q. I mean, have -- I mean, I would have thought your
14 members would want to have their concerns assuaged.

15 A. We are -- we are a not a top-down organization.
16 The intel from our organization comes up, not down. All
17 of our members interact with their processors, interact
18 with their trucking, interact with all the aspects of
19 their business more than I could ever know. I respect and
20 I believe in their characterization and the concerns that
21 they have.

22 Q. I mean, you have on page 3 a comparison of makes
23 and -- and costs, correct?

24 A. Yes. That is just for reference.

25 Q. Okay. I mean, obviously, the current is the
26 current, right?

27 A. Yes.

28 Q. It's not -- you are not suggesting that's --



1 reflects -- strike that.

2 That's the current Make Allowance, correct?

3 A. Yes, those are the current in the Federal Order
4 system. We're not suggesting that's what currently should
5 be.

6 Q. Okay. So that's like data from 2006, 2007?

7 A. That's what's in regulations right now.

8 Q. Okay. So I mean, it wouldn't be an expect- -- I
9 mean, you know, you have this chart that seems to show all
10 this variability, this Figure 2, in makes and costs and --
11 but --

12 A. The chart was honestly specifically for reference,
13 and honestly just to show the difference in the numbers
14 between the proposals. There was nothing really intended
15 by the variability beyond to compare the CDFA 2016 survey
16 that we believe was a more preferable methodology than
17 some of the other options. There was no other intention
18 by including the chart.

19 Q. Like IDFA-1 and IDFA-5, though, that simply
20 reflects the fact that IDFA, as an accommodation to
21 farmers, is asking that its Make Allowances be implemented
22 over four years, correct?

23 A. I believe so.

24 Q. Now, turn to page 4 where you talk about the NDPSR
25 only covering a certain percentage of the commodity
26 production, correct?

27 A. Correct.

28 Q. I mean, that's simply a reflection that USDA



1 after, I'm sure, very careful consideration established
2 criteria for inclusion in that survey, correct?

3 A. Correct. The sole reason for me including this
4 section is that our members are constantly told the story
5 of basically a positive feedback loop of if you increase
6 prices, it is going to be in the survey, and it can't go
7 to the farmer.

8 This is only there to show that in all cases that
9 is not exactly true. In some cases it is. Our members
10 appreciate and understand the importance of
11 Make Allowances, but there are plants who can reap the
12 benefits of higher prices.

13 Q. Well, let's assume -- you know, I'm sure, that,
14 for example, the NDPSR survey for cheese has cutoff dates
15 for how old the cheese can be, correct?

16 A. Correct.

17 Q. And if it's over, I think it is 30 days, you don't
18 get -- it's not a reportable transaction, correct?

19 A. Correct.

20 Q. If it's sold more than 30 days after the date of
21 manufacture, correct?

22 A. Correct.

23 Q. I mean, so I take it you're not suggesting the
24 NDPSR survey fails accurately to capture the transaction
25 prices for the cheese that's within the survey, correct?

26 A. We are not saying that at all.

27 Q. I mean, are you -- I mean, do you -- do you --
28 really -- and so everyone knows what that reported price



1 is, right? I mean, buyers of cheese, sellers of cheese,
2 everyone knows the reported price, correct?

3 A. Yes. It's in the survey.

4 Q. I mean, are you suggesting that a cheese
5 manufacturer in the real world is somehow able to garner
6 some really higher price if it holds onto its cheese for
7 31 days?

8 A. We are suggesting that there's a large proportion
9 of varieties of cheese and volume not captured in the
10 survey, and that the prices on those goods are not
11 included in any regulatory process to set minimum pricing
12 for farmers.

13 Q. And --

14 A. So they can reap benefits of higher prices, yes.

15 Q. In my specific example, are you seriously
16 suggesting that a maker of commodity cheddar cheese can
17 find a buyer to pay a materially higher price than the
18 NDPSR price simply by holding on to the cheese for
19 31 days, causing that cheese to fall outside the survey?

20 A. I mean, I'm sure there's nuance around the
21 situation that you describe. I couldn't say yes or no.

22 Q. Would you hazard a best guess?

23 A. I would say in one day after, not as likely to be
24 different. But that's not really the point of the
25 paragraph in the testimony.

26 Q. Well, I mean, presumably, to the extent that -- I
27 mean, I don't doubt other cheeses are sold for other
28 prices, higher or lower, but I mean, don't you assume that



1 that -- the extent there's a higher price that could be
2 garnered, that's going to be reflected in higher costs, in
3 all likelihood?

4 A. Can you repeat that question?

5 Q. Yes. I mean, if you are going to take that
6 cheddar cheese and age it or do something else with it,
7 that causes it to fall outside the NDPSR definitions?

8 A. Right. I'm not opposing --

9 Q. Isn't there likely to be a cost associated with
10 that?

11 A. I'm not opposing that there aren't increased costs
12 associated with other varieties of specialty cheeses, but
13 they can also sell those products at much higher prices
14 that are not looped into the regulatory price for farmers.
15 That's all -- that's the purpose of the section.

16 Q. And -- and you haven't done any examination
17 suggesting there's not a competitive market for those
18 other cheeses, are you?

19 A. I believe there is competitive market depending on
20 where you are for some of those areas. In some regions of
21 the country, you have farms producing specialty cheese, in
22 a very isolated area, and it is not a competitive market,
23 depending on the region. There's a lot of other factors
24 at play here, wealth income of a certain region, the
25 consumers you are targeting. There's a lot of other
26 factors at play.

27 Again, the sole purpose of this was to say that
28 there are other options for some plants to get the



1 benefits of higher prices, and our farmers are
2 consistently told that no one can increase prices unless
3 the Make Allowances are higher, which is not the case.

4 Q. I mean, you are aware, obviously, that there have
5 been proposals along the way as to whether or not other
6 cheeses should be included in setting Make Allowances and
7 USDA has consistently rejected those proposals?

8 A. USDA's precedent in the past doesn't mean that
9 they can -- I mean, that's why we're here today. We're
10 here to amend Federal Orders to make them better. That
11 means that everybody agrees that there's a fault in them,
12 so I believe they can do better.

13 Q. And do you -- and you say in reference to the
14 California survey on page 4, you say, quote, "Although it
15 did not" -- let me start that question again.

16 I believe at the top of page 4 you are referring
17 to the CDFA survey that was last conducted in 2016,
18 correct?

19 A. Correct.

20 Q. And you say, and I quote, "Although it did not
21 evaluate product yields, this survey would provide a basis
22 for a conservative one-time increase in FMMO
23 Make Allowances, preferable to those proposed by NMPF or
24 IDFA."

25 Do you see that?

26 A. Yes.

27 Q. So your suggestion is that that USDA use 2016 data
28 to set current Make Allowances?



1 A. Ms. Hancock previously asked questions about this.
2 Our sole intention of including information on the 2016
3 CDFA survey was to say that it was preferable in
4 methodology to the other options.

5 Q. Are you say --

6 A. AFBF believes that of all the options, the CDFA
7 survey from 2016 is the optimal option that we have in
8 terms of methodology.

9 Q. The optimal option is to use seven-year-old data;
10 that's your view?

11 A. It's the only mandatory and audited survey.
12 That's -- our -- that's the only purpose of including
13 that. That's the last time there was a mandatory and
14 audited survey. We have already expressed our concerns
15 with the regional isolation of the survey.

16 Q. But --

17 A. But, yes, we believe in that.

18 Q. That's the -- that's the -- that's what they
19 should -- that's what USDA should do, use seven-year-old
20 data?

21 A. It's the preferable methodology.

22 Q. I mean, you -- you -- okay.

23 THE COURT: Wait a minute, I'm not sure we got a
24 clear answer to that.

25 Are you talking -- you are talking about data;
26 you're talking about methodology. Are we overlapping
27 here? I mean --

28 MR. ROSENBAUM: Let's be -- well, your Honor --



1 THE COURT: Nail it down.

2 MR. ROSENBAUM: Your Honor --

3 THE COURT: I understand there's a certain
4 repetition here.

5 THE WITNESS: The option --

6 MR. ROSENBAUM: I should --

7 (Court Reporter clarification.)

8 THE COURT: I'm sorry, one at a time.

9 MR. ROSENBAUM: I'm -- you know, please.

10 THE COURT: I want to hear what you just said.

11 MR. ROSENBAUM: I should allow your Honor to take
12 over.

13 THE COURT: No, I don't want to -- you're both
14 working hard.

15 BY MR. ROSENBAUM:

16 Q. The -- okay. You -- your -- your view is that
17 USDA should adopt, as the cheese Make Allowance, the
18 survey report from 2016 --

19 A. Our position --

20 Q. -- conducted by the state of California?

21 A. Our position is ardently in support of a mandatory
22 and audited cost survey. Of the existing other options,
23 we believe that that is the best option. But our position
24 is for data from a current national mandatory and audited
25 survey as I have stated.

26 MR. ROSENBAUM: That's all I have. Thank you.

27 THE COURT: Further questions?

28 ///



1 CROSS-EXAMINATION

2 BY MR. ENGLISH:

3 Q. Good morning. Chip English for the Milk
4 Innovation Group.5 So in response to questions from Mr. Rosenbaum,
6 you -- and also Ms. Hancock, you said that you included
7 Figure 2 for comparison purposes, correct?

8 A. Correct.

9 Q. I just want to note and see if you would like to
10 confirm, for CDFA 2016, under cheese, you have 0.2354.11 If the exhibit submitted by Dr. Schiek has current
12 for 2016 of .2454, the record will speak for itself, but
13 if that's the case, then that should be increased by
14 \$0.01, correct?

15 A. I accept that revision to that.

16 Q. Okay. So even though you are talking about using
17 that for a reference point -- and I'm going to focus a lot
18 of my attention this morning on cheese -- the CDFA 2016
19 number of .2454 is higher than IDFA for the first year,
20 correct?

21 A. Correct.

22 Q. Okay. And I understand your responses, and I'm
23 not going to go back over them, to Ms. Hancock and
24 Mr. Rosenbaum, about the theoretical approach.25 But leaving aside the theoretical approach
26 comment, you are certainly not suggesting the costs have
27 gone down since 2016, are you?

28 A. No, I do not have that data available.



1 Q. Well, but you have seen data from a number of
2 witnesses that costs have gone up, correct, since 2016?

3 A. Correct. I have seen that.

4 Q. Did Dr. Schiek find in his testimony that the
5 information you provided had quote/unquote statistical
6 significance?

7 A. It did.

8 Q. Okay.

9 A. I will note that in a regression analysis, a high
10 R-squared value with a small number of observations often
11 is a sign of overfitting. So that's -- that often is not
12 necessarily just because it has high statistical
13 significance, and the regression analysis doesn't mean
14 that it is not an overfitted model.

15 Q. But nonetheless, he found statistical
16 significance, correct?

17 A. Correct.

18 Q. Thank you.

19 So I want to go back and focus on a couple things.
20 First, in response to a question from Mr. Rosenbaum about
21 the timing for what might happen in the future with
22 respect to audited surveys, I think I heard you say you
23 disagreed with him on how long it would take.

24 A. I disagree with the characterization that a Farm
25 Bill will not happen in four years, say. I think it will
26 happen before then.

27 Q. Well, but isn't -- well, how long would you think
28 a Farm Bill will happen?



1 A. Our hope is to have it done by the end of the
2 year, if not by -- before June.

3 Q. Okay. So when was the last time a Farm Bill was
4 passed, you know, without an extension, on time?

5 A. Well, the timeframe I mentioned does not say that
6 it was passed on time. If it's passed before June of next
7 year -- you know, the 2019 Farm Bill was not passed
8 exactly on time.

9 Q. Okay. So, now, did you follow some of the
10 discussion, and Mr. Brown talked about this yesterday,
11 assuming even that a Farm Bill were passed say in June of
12 year, you understand, of course, that USDA then has to put
13 the program together, correct?

14 A. Correct.

15 Q. And they have to end up surveying plants that have
16 never been surveyed before, correct?

17 A. Correct.

18 Q. And then they have to audit all that, correct?

19 A. Correct.

20 Q. And then they have to come up with results of that
21 study, correct?

22 A. Correct.

23 Q. And then the industry has to talk about it,
24 correct?

25 A. Correct.

26 Q. And then somebody has to submit a hearing
27 proposal, correct?

28 A. Yes.



1 Q. Okay. So USDA hired Dr. Stephenson originally for
2 the study that came out in 2021 in 2018, correct?

3 A. Correct.

4 Q. And we're now five years past that, correct?

5 A. Correct.

6 Q. So I want to go back because I don't think you
7 actually answered the question. And I apologize that was
8 my fault.

9 When was the last time a Farm Bill was passed on
10 time?

11 A. I do not recall off the top of my head. I want to
12 say 2002, but that could be incorrect.

13 Q. Okay. So, now, I want to go back to your comments
14 that you made a couple times that a number of large
15 processors did not participate in the Stephenson survey of
16 2023. I want to focus on cheese.

17 You agree that Hilmar testified that it
18 participated, correct?

19 A. Yes.

20 Q. You agree that Saputo testified that it
21 participated, correct?

22 A. Yes.

23 Q. You agree that Leprino testified and participated,
24 correct?

25 A. Yes.

26 Q. You agree that Glanbia testified and participated,
27 correct?

28 A. Yes.



1 Q. And you agree that AMPI testified and
2 participated, correct?

3 A. Correct.

4 Q. And we also heard that Land O'Lakes participated,
5 correct?

6 A. Yes.

7 Q. Okay. Which large cheese manufacturer did not
8 participate?

9 A. I do not know off the top of my head, but there's
10 a substantial amount of cheese not in the volume of his
11 survey. It said, I have in my testimony, what was it, 50
12 or 45%.

13 Q. But that doesn't necessarily mean large ones
14 didn't participate, did it?

15 A. No, but it means that a substantial amount of
16 volume of all those plants was not represented.

17 Q. But your testimony was that large processors did
18 not participate.

19 A. I'm sure some of those processors are very large.
20 I mean, we have heard of very large co-ops that did not
21 participate that produce cheese.

22 Q. You have heard, what --

23 A. I believe DFA did not participate, and they
24 produce cheese.

25 Q. Do you know if they are large compared to these
26 other entities for their plants?

27 A. I do not have the volumetrics on the top of my
28 head.



1 Q. And speaking about motivations to participate or
2 not participate, since DFA opposes IDFA's proposal, your
3 own surmise about intentions for not participating could
4 lead to a negative inference that if they participated,
5 their costs would have been higher, correct?

6 A. Can you repeat the question?

7 Q. You, in your statement, and in response to
8 Mr. Rosenbaum, discussed what you viewed as an
9 "unfortunate" -- I'm sorry. I apologize. I went to the
10 previous paragraph.

11 "Manufacturers to be selective in their choice to
12 participate." Given the fact that DFA opposes the IDFA
13 proposal, isn't it a logical conclusion that had they
14 participated, their higher costs would have raised the
15 survey results?

16 A. If they participated and they had higher cost data
17 that went into the survey, yes, it would have,
18 hypothetically, increased those numbers.

19 MR. ENGLISH: I have no further questions.

20 CROSS-EXAMINATION

21 BY MR. MILTNER:

22 Q. Good morning, Mr. Munch.

23 A. Good morning.

24 Q. I'm Ryan Miltner. I represent Select Milk
25 Producers. You knew that.

26 Three areas that I think I wanted to ask you
27 about, and I wanted to start on page 4 of your testimony,
28 the second paragraph from the bottom. And you -- you



1 speak about handlers who diversify their operations, a
2 tactic that many farmers are told to use to protect
3 against revenue uncertainties.

4 So my first question on that sentence is, tell me
5 a little bit about the farmer side of that equation
6 because I'm not sure -- not sure what you fully intend to
7 convey there.

8 A. Right. So the main point of the inclusion in that
9 sentence is, our farmers have often reported to us that,
10 you know, one of the things that they are told by
11 processors, by, you know, consultants, by other experts
12 or, you know, people providing advice to their operation,
13 is that if they want to protect against revenue
14 uncertainty, then they should diversify their operation.
15 And that could mean maybe investing in on-site bottling.
16 Maybe that means growing a different crop. Maybe that
17 means now you grow your own feed, or you invest in higher
18 technology, or you increase your variety of products sold,
19 you add a farm store.

20 So they are told often that they need to invest in
21 this diversification on farm to protect against revenue
22 uncertainty.

23 The main -- the main point to include in that
24 sentence is that we believe processors should also be held
25 to the same standard, if they want to, you know, protect
26 against revenue uncertainty, like farmers, they should
27 have to do the same sort of diversification to compete.

28 Q. So now on the processor side, have you been here



1 or listening to most of -- most of the hearing testimony?

2 A. I was here all of last week and the first three
3 days. I have been in and out listening the rest of the
4 time.

5 Q. Okay. So do you recall any processor that did not
6 have some sort of diversification in their products
7 produced?

8 A. I believe most testified on the fact that they can
9 produce other products. So I believe many have
10 diversified. There are some very large and, you know,
11 recently that, you know, they -- they specialize in
12 particular commodity products, and we have heard many of
13 those testify that they are restricted by the system. So
14 when I speak of this, those are sort of some of the ones
15 that I'm speaking about specifically.

16 Q. The secondary I wanted to ask about related to the
17 timing of any mandatory survey, and I think you have --
18 Mr. English asked a good bit about that. But is it -- is
19 it your testimony that once the Farm Bill is passed, and
20 the regulations and procedures are adopted, you would
21 expect it to be a two-year process to -- from the
22 beginning of plant surveys until -- until a change was
23 adopted or until a hearing could begin to confirm those
24 changes?

25 A. I believe the intention was for when a hearing
26 would begin, they could collect that data within that time
27 period.

28 Q. Okay. So I'd now like to ask you some questions



1 about the various studies on Make Allowances that have
2 been discussed that were presented at this hearing.

3 And so where I wanted to start was by asking you,
4 as an economist, is there a difference in your mind among
5 these three terms, which have all been talked about: A
6 survey, a sample, and a census?

7 A. There is a difference. I mean, a sample is the
8 sample of thing that you are surveying. A census, you are
9 utilizing a much broader subset of data. I mean, Census
10 of Agriculture is one that I'm in every single day. I
11 don't have the exact definitions, but they are different.

12 Q. So I mean, when you are doing a -- when you are
13 trying to obtain data about a population, am I correct
14 that a census is intended to gather that data from every
15 member of that entire population?

16 A. To my knowledge, I would not disagree with that.

17 Q. And then if you are going -- if you are
18 surveying -- or if you are gathering data from a smaller
19 set of the total population, would that be a survey?

20 A. I would not disagree if that's the definition you
21 found.

22 Q. Okay.

23 A. I believe that a survey can be of the majority of
24 a population. So it kind of depends on the situation.

25 Q. It could be a majority but -- but a subset of the
26 total --

27 A. Right.

28 Q. -- population?



1 A. It kind of -- yeah. You could have a very small
2 population and have the bulk of it within a survey, just
3 because of that's how the project works out. But, yes, I
4 agree with that characterization.

5 Q. So if you wanted to obtain the best information
6 about the total population, between a census and a survey,
7 if you are looking at this for economic analysis or other
8 purposes, which of those two is going to give you the most
9 reliable outcome?

10 A. Census.

11 Q. And was the California data, to your knowledge, a
12 census or a survey?

13 A. I believe it was a survey.

14 Q. You believe it was a survey?

15 A. Yes.

16 Q. Okay. Within the world of surveys, when you are
17 going to select a sample, are there -- are there benefits
18 to taking a random sampling or a stratified sampling
19 versus just opening the doors to whoever wants to
20 participate?

21 A. Yes.

22 Q. What would -- in terms of the validity of the
23 results, what -- as an economist, what are the benefits to
24 a random sampling versus just opening the doors?

25 A. It gets rid of potential for bias. I mean, that's
26 the main reason.

27 Q. And what about --

28 A. In your sample size.



1 Q. And what about a stratified sampling versus just
2 opening the doors?

3 A. It kind of allows you to see different subsets
4 of -- in sort of an unbiased manner.

5 Q. There were some questions asked of you about
6 Dr. Stephenson's report from the 2006, 2007 hearings.
7 Those, as I believe Dr. Stephenson testified, were
8 stratified samples from his pool of data. And the 2023
9 report was one where it was by invitation to a subset of
10 the population.

11 Now, putting aside the fact that there are two
12 very different time periods, as an economist, would you
13 find one of those two approaches more or less valid than
14 the other?

15 A. I mean, I'm not intimately aware of the
16 methodologies, but the stratification piece is preferred,
17 I would say.

18 Q. And so if in relying on a stratified survey versus
19 one that was non-stratified, and you were a regulator,
20 would you feel quite as comfortable relying on one over
21 the other?

22 A. I mean, I believe the stratified data is more
23 appropriate as a basis. But, again we're in support of a
24 mandatory audited survey amongst all processors. That's
25 AFBF's position. So I don't really want to comment on if
26 USDA has to decide, well, you know, which -- because
27 that's our stance. That's where our members stand.

28 MR. MILTNER: I think that's all the questions I



1 had. Thank you.

2 THE WITNESS: Thank you.

3 THE COURT: Questions from anyone else?

4 AMS -- oh, I'm sorry, Ms. Hancock.

5 CROSS-EXAMINATION

6 BY MS. HANCOCK:

7 Q. Let's see. Good morning, Mr. Munch. I just want
8 to first start off by thanking you for your level of
9 professionalism and maintaining your professional demeanor
10 throughout your examination. I think it's important for
11 this process that we do that.

12 You had some questions about whether you were
13 aware of Land O'Lakes' testimony on -- on its increases to
14 its own Make Allowance.

15 Do you recall those questions?

16 A. I do.

17 Q. And were you here when Mr. Edmiston testified?

18 A. I was not, but I might have been listening.

19 Q. Okay. Mr. Edmiston testified that Land O'Lakes
20 had experienced an increase in its own Make Allowances and
21 the percentages that it provided with respect to its own
22 increases.

23 Is that how you understood the percentage to
24 increase to be characterized to you in your questions?

25 A. Not specifically, no.

26 Q. Okay. And I'll represent to you that Land O'Lakes
27 never testified about how much, if any, its own costs had
28 increased over the current ly set Make Allowance.



1 Does that make sense what I'm comparing there?

2 A. Yes.

3 Q. And we did ask some other IDFA members at what
4 point in time their costs had exceeded the currently set
5 Make Allowance.

6 Were you here for that testimony?

7 A. I was, yes.

8 Q. And did you hear them say that it was within the
9 last four years?

10 A. Yes.

11 Q. Would that suggest to you that if the
12 Make Allowances haven't been increased in 15 years, and it
13 was only the last four years that -- that their actual
14 costs had exceeded the Make Allowance, that they enjoyed
15 the benefits of the profits that they could obtain by
16 beating that Make Allowance for 11 years?

17 A. That would make sense.

18 Q. Would it also suggest to you that perhaps 15 years
19 ago, those Make Allowances numbers were set too high?

20 A. I would not disagree with that.

21 MS. HANCOCK: Thank you. That's all I have.

22 THE COURT: Yes, Mr. Rosenbaum.

23 CROSS-EXAMINATION

24 BY MR. ROSENBAUM:

25 Q. Steve Rosenbaum from the International Dairy Foods
26 Association.

27 I take it you have not examined the
28 Land O'Lakes --



1 A. I have not. I'm not intimately familiar with
2 either of the questioning or --

3 Q. So if, in fact -- so you are not in a position to
4 say whether in fact that exhibit explicitly says that he's
5 tracking costs as compared to the Stephenson 2007 survey?

6 A. I am not familiar enough with the testimony to
7 make -- but I feel like the record will stand for itself.

8 Q. Or to the 2008 Make Allowances, you don't know
9 what -- whether he -- that that's what the document shows?

10 A. No. Not off the top of my head.

11 MR. ROSENBAUM: That's all I have.

12 THE COURT: AMS?

13 Should we take -- we have been going an hour and a
14 half, I guess. Should we take a break of ten minutes?
15 Let's come back at 9:40.

16 (Whereupon, a break was taken.)

17 THE COURT: Let's come to order. Let's get
18 started.

19 AMS.

20 CROSS-EXAMINATION

21 BY MS. TAYLOR:

22 Q. Good morning.

23 A. Good morning, Erin.

24 Q. I want to thank you for being flexible from last
25 week and coming back to testify today. So thank you very
26 much.

27 A. Thankfully there's lots of flights from DCA.

28 Q. I really don't have a lot of questions for you



1 that haven't been asked.

2 So you -- I do have a few.

3 On page 3, the paragraph before the chart, you
4 talk about using different -- the different surveys that
5 have been done in the past. "This is more art than
6 science, and USDA was put in the difficult position of
7 applying such art in the past."

8 I was wondering if you could just talk a little
9 bit about what you mean there for the record.

10 A. Yes. So, to my knowledge, when they --
11 Make Allowances were last adjusted, USDA basically -- I
12 mean, like you are doing now, is pull this different
13 information from what's been presented, and all the other
14 information that's been on the record, and make a final
15 decision. So we're kind of characterizing that as an art
16 of what's the best method to do that that results in the
17 most optimal conclusion or -- or proposed rule.

18 Q. Okay. And your preference, as you said
19 throughout, is instead of doing that, is an audited
20 mandatory survey?

21 A. Right, have that information based on that.

22 Q. Okay. On the same page, Chart 2, you had a note
23 at the bottom of the chart: "'CDFA 2016 Whey' is the CDFA
24 2016 NDM plus current difference."

25 Could you explain what that is? What the current
26 difference is?

27 A. I have to be honest, that was a Roger plop in,
28 so...



1 Q. Okay. Well, if Roger gets up on the stand later,
2 I'll put a note to ask him that question.

3 A. I apologize. I should have clarified that.

4 Q. No problem.

5 On page 4 in the middle, that big paragraph in the
6 middle, you are talking about, generally, the amount of
7 commodity that is covered by the NDPSR. You say in the
8 one sentence, 10% of butter, about 10% cheese, 28% of
9 whey, and 52% of nonfat dry milk is captured in the NDPSR.

10 Just could you illuminate what you used to get
11 those calcula- -- get those percentages?

12 A. Yes. So for those ones in particular -- are those
13 ones -- I believe since 2000 I used -- when NASS covered
14 the survey, I took that volume, and then I used once it
15 switched over to AMS, I took that volume, and then divided
16 what's in the NDPSR survey volume by each of those
17 categories. The cheese ones included both the 40-pound
18 and obviously 500-pound barrels, against all cheese.

19 Q. And "all cheese" being the NASS all cheese
20 volumes?

21 A. Yes.

22 Q. Okay. So it is NDPSR over the NASS numbers?

23 A. Correct.

24 Q. Okay. And then on the last page of your
25 statement, when you are talking about a note on using
26 input price indices, in the middle it says, "Over time,
27 input price increases tend to be at least partially offset
28 by productivity increases."



1 Could you just explain a little bit more about
2 that?

3 A. Yes. So as -- as technology advances, as, you
4 know, you have new optimal workplace processes depending
5 on the particular operation that you have, a lot of those
6 efficiencies offset some of the inputs that you have. So
7 in -- in many cases you will see sort of a deflation in
8 certain costs associated with the same amount of effort by
9 a particular amount of labor.

10 Q. And -- sorry.

11 A. No, you go ahead.

12 Q. So in using those indices, then it's your position
13 that those efficiencies aren't captured fully because you
14 are still using the energy index, for example, or --

15 A. Right.

16 Q. But I ask because I think I have heard previous
17 testimony that tends to say that those efficiencies are
18 captured in the labor index. But you would argue not
19 fully?

20 A. Well, and -- and particular in Dr. Schiek's study,
21 he uses broad indices instead of specific indices, such as
22 dairy plants, so there's a concern there. But also, just
23 broadly, we have policy opposed to indexing just because
24 we don't believe that it takes in all the factors into
25 consideration.

26 Q. Okay. That is a Farm Bureau policy position?

27 A. Yes.

28 Q. Okay.



1 A. That is directly from our book.

2 Q. Okay. Thank you.

3 And just one last question for clar- -- to
4 clarify. Farm Bureau supports an audited mandatory cost
5 survey?

6 A. Correct.

7 Q. But that is not a proposal here at this hearing
8 that's been discussed.

9 So do you have a position or are you not having a
10 position on Proposals 7, 8, and 9?

11 A. We oppose those proposals.

12 Q. You do oppose them all?

13 A. Yes.

14 Q. Okay.

15 MS. TAYLOR: That's it from AMS. Thank you.

16 THE COURT: Redirect.

17 REDIRECT EXAMINATION

18 BY DR. CRYAN:

19 Q. Roger Cryan for American Farm Bureau Federation.
20 Thank you, Mr. Munch, for your testimony.

21 I would like to thank Mr. English for pointing out
22 the error. As you said, that was -- that was my
23 assignment. That chart was my assignment, and that's an
24 error. That number is a cent higher.

25 But would you -- does that change -- change the
26 testimony in any -- in substance?

27 A. No. The change in the number, you are saying?

28 Q. Right.



1 A. No, we think it still reflects what was found and
2 determined in that survey.

3 Q. Because it is a matter of principle, not a matter
4 of the individual number?

5 A. Correct.

6 DR. CRYAN: And just for the record, this is --
7 this testimony was a joint product. It is -- it could
8 have been equally delivered by Mr. Munch or myself, but it
9 had the stamp of each of us.

10 BY DR. CRYAN:

11 Q. Are you accusing anyone of lying or deliberate
12 deception in any part of this process?

13 A. I am not.

14 Q. I think it's from the record, the -- from the
15 record, from the previous hearings, from this record, it
16 is relatively clear that when Dr. Stephenson collected
17 data in 1998, there was -- there was a -- it was based on
18 a tradition of benchmarking.

19 And as -- as time goes on and folks presumably
20 begin to understand more and more that it is going to be
21 used for regulatory purposes, how would you describe the
22 way survey results change based on the understood purpose
23 of the survey?

24 A. You mean -- no. As sort of referred to earlier,
25 depending on what a plant might see as an optimal result
26 in sort of their long-term revenue goals or how that
27 impacts their individual business, they are going to
28 choose whether or not to par- -- I mean, obviously, a



1 plant with a very high cost, they have a strong incentive
2 to participate because they want those numbers reflected,
3 and they want the highest costs that they have to be
4 reflected.

5 On the other hand, there is incentive for the
6 lowest cost, highest efficiency to not participate or to
7 present numbers on the lower spectrum in their books.

8 So it really just comes up as, you know, there is
9 a strategy, people are going -- you know, this is -- you
10 know, people are trying to make money, and this is a
11 regulatory consideration that impacts the bottom line. So
12 they are going to choose to participate and choose to the
13 extent of which that they participate depending on their
14 intended goals and...

15 Q. So if you have a voluntary survey, it is not --
16 it's a reasonable business decision for a plant to choose
17 to participate or not to participate?

18 A. I believe it is.

19 Q. And it doesn't represent -- that's not a lie or a
20 deception, it is simply a business decision to engage in
21 something or not?

22 A. Correct. It is a voluntary survey. Nobody is
23 forced to participate, as with any voluntary survey.

24 Q. There's been some talk about the proceedings in
25 2006 and 2007.

26 At that time, surveys by Dr. Stephenson were used,
27 but the CDFA numbers were available.

28 And what did that -- what did that mean in terms



1 of the application of the Stephenson results?

2 A. So I believe USDA was utilizing the CDFA survey as
3 sort of a check to the voluntary survey to make sure the
4 numbers were in -- in -- in an appropriate range. So you
5 are using the improved preferable methodology that we
6 believe is preferable to the voluntary survey.

7 Q. You talked about in the survey -- in the
8 testimony, you talked about the temptation for creative
9 activity.

10 Would you say that has an impact on the perception
11 of the proceeding, whether anyone succumbs to the
12 temptation or not?

13 A. Right. So, you know, our farmers have expressed
14 extreme concerns over, you know, the reporting in these
15 voluntary surveys. It doesn't mean that the numbers are
16 wrong. That's not what we're saying. There is a concern
17 and there is perception that people are being deceptive.
18 And I think that's the problem that our members have. And
19 having an audited survey gets rid of -- you know, gets rid
20 of that perception, gets rid of the chance for people to
21 be deceptive. So that's really what our farmers want is
22 an assurance. It is not saying that the numbers aren't
23 right now. It is saying that now we know the numbers are
24 right, and we can go to our farmers with confidence that
25 they are right. And I think that's an assurance that they
26 deserve.

27 Q. The -- there was previous testimony, I believe it
28 was by Mr. Edmiston, that their co-op farmer members were



1 asking them not to go too far repeatedly, that they --
2 that that was a message they heard a number of times. And
3 I don't think it was only Mr. Edmiston. And then I asked
4 whether in seeking these changes they tried to find the
5 highest make increase -- the highest make that they're
6 assured isn't too high.

7 Would you say this is -- this is kind of the
8 objective in suggesting the CDFA numbers as an
9 alternative?

10 A. Yes. You know, we're looking at a decision that
11 even at the smallest percent of being off has a large
12 magnitude impact on our farmers' bottom lines. And some
13 of our farmers from last week, like Brian Henrichs, he
14 answered a question that said even a 1 to 2% difference in
15 the Make Allowance has an extreme impact on their bottom
16 line.

17 So we want to make sure whatever numbers are
18 utilized are definitely not too high, and given the -- you
19 know, the timing and the methodology behind that CDFA
20 survey, we are under the understanding that currently it
21 is not too high.

22 Q. And finally, Mr. Miltner asked some questions
23 about surveys and the nature of surveys and stratification
24 and random and self- -- self-selected, and the -- and the
25 concept that you kind of were walking around was
26 self-selection bias.

27 Would you talk about self-selection bias a little
28 bit?



1 A. Yeah. So self-selection bias is really, you know,
2 when a particular population or group decides to
3 participate in a survey, and that's what happens when you
4 have a voluntary survey. You know, they might find some
5 sort of benefit out of having the information. It could
6 just be benchmarking, or it could be -- and, you know, we
7 argue that it could be to skew data or just have excess
8 data. And folks might not participate for the opposite
9 reason.

10 So any sort of situation or surveying situation
11 where people are choosing based on a decision or an
12 outcome or to have information to participate, you have
13 the self-selection bias, which negatively impacts the
14 quality of the results.

15 Q. Thank you.

16 DR. CRYAN: And I believe this is when I ask for
17 the exhibit to be recognized --

18 THE COURT: Yes.

19 DR. CRYAN: -- as -- what was the number?

20 THE COURT: Exhibit 222.

21 Any objections?

22 Seeing none, Exhibit 222 is admitted into the
23 record.

24 (Thereafter, Exhibit Number 222 was received
25 into evidence.)

26 DR. CRYAN: Thank you, your Honor. That's all for
27 me.

28 THE COURT: Okay. You are dismissed. Thank



1 you --

2 THE WITNESS: Thank you.

3 THE COURT: -- Mr. Munch.

4 MR. MILTNER: Your Honor, we would call Steve
5 Cooper to the stand.

6 THE COURT: Please raise your right hand.

7 STEVEN COOPER,

8 Being first duly sworn, was examined and
9 testified as follows:

10 THE WITNESS: Good morning. My name is Steven
11 Cooper. I'm the president and chief operating officer of
12 Continental Dairy Facilities and Continental Dairy
13 Facilities Southwest.

14 DIRECT EXAMINATION

15 BY MR. MILTNER:

16 Q. Thank you, Steve.

17 Before we go further in your statement, which you
18 have got in front of you, and at the top that's marked
19 Exhibit Select-5, correct?

20 A. Correct.

21 Q. And you have seen this before?

22 A. Yes.

23 Q. This is the testimony that you have prepared on
24 Select's proposal regarding the nonfat dry milk yield,
25 correct?

26 A. Correct.

27 Q. Could you -- you have given your name, but could
28 you spell your name for the record and then give your



1 business address as well.

2 A. Steven, S-T-E-V-E-N, Cooper, C-O-O-P-E-R.

3 Business address is 999 West Randall Street, Coopersville,
4 Michigan, 49404.

5 Q. And Randall was R-A-N-D-A-L-L, correct?

6 A. That is correct.

7 Q. So if you would go ahead and give your
8 introduction, and then I'll have some questions for you,
9 and then we can finish giving your statement. Okay?

10 A. Okay.

11 THE COURT: Let's go ahead and mark Select --
12 Exhibit Select-5 as Exhibit 223 for identification.

13 (Thereafter, Exhibit Number 223 was marked
14 for identification.)

15 MR. MILTNER: Thank you, your Honor.

16 THE COURT: You may continue, Mr. Cooper.

17 THE WITNESS: CDF operates a butter/powder plant
18 in Coopersville, Michigan, and CDF Southwest operates a
19 butter/powder plant in Littlefield, Texas. Both CDF and
20 CDF Southwest are wholly-owned subsidiaries of Select Milk
21 Producers, Inc.

22 I have a Bachelor of Science degree in dairy
23 science and technology from California State University
24 Fresno, and before earning my Bachelor's degree, I earned
25 an associate's degree in dairy production from Mount San
26 Antonio College in Walnut, California. I have worked in
27 the dairy industry either on a dairy farm or in dairy
28 manufacturing since I was 16 years old.



1 Following my graduation from Fresno State, I
2 worked for three years as an assistant plant manager with
3 Sonoma Cheese, and I was then hired by California Milk
4 Producers, which is now California Dairies, Inc., as a
5 cheese plant supervisor, working in a plant manufacturing
6 40-pound block cheddar cheese.

7 And for the last 15 years of my time with CDI, I
8 worked in its butter/powder plants, ultimately holding the
9 title of vice president of manufacturing operations, where
10 I had oversight responsibility of CDI's manufacturing
11 facilities.

12 I joined CDF in 2009, initially working with
13 Continental Dairy Products, Inc., a cooperative that has
14 since been merged with Select, and I was hired to work
15 with Continental as they were designing and building a new
16 Class IV balancing plant to serve its owner producers in
17 the Midwest marketing area. I was involved in the design,
18 construction, and commissioning of the plant, and have
19 been its general manager and COO since its inception.

20 In 2015, after Continental had merged into Select,
21 I served the same role in designing, constructing and
22 commissioning and operating a sister plant in Littlefield,
23 Texas to serve Select's owners in the Southwest Marketing
24 Area.

25 I am ultimately responsible for all dairy -- or
26 daily operations at both CDF and CDF Southwest, including
27 product manufacturing, milk sourcing, product sales, and
28 food safety. In conjunction with Select's management and



1 our producer directors, I'm also responsible for
2 short-term and long-term strategic planning for both
3 facilities and related activities of the cooperative.

4 BY MR. MILTNER:

5 Q. Thank you.

6 So in -- in total, Mr. Cooper, how many years now
7 have you spent working in dairy manufacturing?

8 A. In manufacturing, alone? 47 years.

9 Q. And during that time, what types of facilities
10 have you worked in in terms of the types of products they
11 produce?

12 A. I started off in cheese, working in an
13 artisanal-style cheese plant in Sonoma, doing artisanal
14 cheeses. And then went to a block cheddar manufacturing
15 operation at California Milk Producers. And then from
16 there, went into butter and powder. And then the
17 facilities I've worked in have also produced cream,
18 condensed, ice cream mixes.

19 Q. And how much of your time has been in the
20 butter/powder plant part of that equation?

21 A. Most of my career. So all about -- except for the
22 six years I was in cheese, probably 40-plus years in
23 butter/powder.

24 Q. And the most recent 40 years, consecutively
25 dealing with --

26 A. That's correct.

27 Q. -- butter/powder operations?

28 A. Yes.



1 Q. Do you also serve on any industry committees?

2 A. Yes, I do.

3 Q. What are those currently?

4 A. I serve on ADPI, IDFA, U.S. Dec, Dairy Products
5 Institute of Texas. I think that's it.

6 Q. And is Continental Dairy Facilities or Select Milk
7 Producers a member of IDFA?

8 A. Continental Dairies is a member of IDFA.

9 MR. MILTNER: Your Honor, we would ask that
10 Mr. Cooper be recognized as an expert in the area of dairy
11 product manufacturing.

12 THE COURT: Any objections?

13 I find this witness to be an expert in that area.

14 MR. MILTNER: Thank you.

15 BY MR. MILTNER:

16 Q. Mr. Cooper, if you would go ahead and present the
17 rest of your testimony. And just for our court reporter's
18 sake, if you can slow down just a touch. We have all had
19 the tendency to read at pace, and it's hard for her to
20 take it all down. So thank you very much.

21 A. I'll slow it down.

22 The scope of my testimony today is related to the
23 production and sales of butter/powder in both the Michigan
24 CDF plant and the Texas CDF Southwest plant. In addition
25 to the analysis presented in this testimony, I have
26 reviewed and am familiar with testimony of Chris Allen on
27 this proposal, and my testimony is intended to supplement
28 and build upon his.



1 Both the Michigan and the Texas plant produce a
2 variety of products. The predominant products produced
3 are nonfat dry milk, butter, and buttermilk powder.
4 Depending on market conditions, the plants will also
5 produce condensed skim milk, whole milk powder, and bulk
6 cream.

7 I was asked by Select to analyze and provide
8 testimony on the sales prices of low-heat nonfat dry milk
9 and buttermilk powder for the period of January 2021
10 through June 2023. Specifically, I was asked to analyze
11 the alignment of these prices at each plant for each month
12 in that period. I was also asked to discuss the costs of
13 manufacturing low-heat nonfat dry milk compared with
14 buttermilk powder.

15 CDF and CDF Southwest maintain records of the
16 prices received for all products sold, both on an
17 individual sale basis and aggregated data for the purposes
18 of internal reporting and analysis. I asked my staff to
19 compile the sales data described above for each facility.
20 I was provided the monthly average sales prices for
21 low-heat nonfat dry milk and buttermilk powder at each
22 plant. That data was then compared monthly for the entire
23 period.

24 Included in this statement are a series of tables
25 and graphs. The first table lists for the CDF Michigan
26 plant, for each month, the price received for buttermilk
27 powder as a percentage of the price received for low-heat
28 nonfat dry milk in the same month. The average, maximum,



1 and minimum is also reported. Over the observed period,
2 buttermilk powder prices averaged 96.72% of nonfat dry
3 milk prices. The maximum buttermilk powder price was
4 115.54%, and the minimum was 82.51%.

5 The second table provides the same information for
6 the CDF's Southwest Texas plant. Over the observed
7 period, buttermilk powder prices averaged 96.59% of nonfat
8 dry milk prices. The maximum buttermilk price was
9 114.67%, and the minimum was 82.89%. In certain months,
10 the plants did not sell any buttermilk powder. No data is
11 reported for those months.

12 As an aside, for those months where no buttermilk
13 powder was sold, I compared the Dairy Market News reported
14 price relationship between low-heat nonfat dry milk and
15 buttermilk powder. For the four months when CDF did not
16 sell buttermilk powder, the price relationships for the
17 Central/Eastern reports were 95.90%, 89.17%, 119.18%, and
18 120.88%.

19 For the four months where CDF Southwest did not
20 sell buttermilk powder, the price relationships for the
21 Western reports were 90.59%, 94.44%, 96.45%, and 82.46%.

22 We present this data to demonstrate that the
23 decision not to sell buttermilk in those months was not a
24 function of a weak buttermilk market relative to nonfat
25 dry milk. I also note that the four months that CDF did
26 not sell buttermilk powder are not the same four months
27 when CDF Southwest did not sell buttermilk powder.

28 The next graph shows the buttermilk price index on



1 a month-to-month basis for CDF Michigan. The next page
2 also shows the relationship for Continental Dairy
3 Facilities Southwest.

4 Related information is presented graphically. The
5 first graph plots the monthly sales price of buttermilk
6 powder for the Michigan and Texas plants expressed as a
7 percentage of the nonfat dry milk prices for the plants.
8 You will see close alignment in months where both plants
9 sold buttermilk powder. Graphs 2 and 3 plot the nonfat
10 dry milk price for the Michigan plant against the prices
11 for the Texas plant and the same analysis for buttermilk
12 powder. Again, you will see a close alignment between the
13 two plants.

14 In addition to examining the sales prices of
15 nonfat dry milk and buttermilk powder, I also examined the
16 plants' manufacturing costs for low-heat nonfat dry milk
17 and buttermilk powder.

18 I note that neither Continental Dairy Facilities
19 nor Continental Dairy Facilities Southwest participated in
20 the price surveys conducted by Mark Stephenson or Bill
21 Schiek. The reasons for our decision not to participate
22 will be testified to separately when Select addresses
23 Proposals 7, 8, and 9. Nor will I discuss during my
24 testimony the actual manufacturing costs of CDF or CDF
25 Southwest for nonfat dry milk or buttermilk powder.

26 However, I did examine whether the stated
27 manufacturing cost relationship noted by USDA during order
28 reform was accurate in my experience and in the operations



1 of CDF and CDF Southwest. The order reform decision found
2 that it costs \$0.02 more to make buttermilk powder than to
3 make nonfat dry milk powder. The actual process of drying
4 buttermilk and drying skim milk are essentially the same.
5 We utilize the same equipment and processes to make both
6 products.

7 The only difference is that it takes somewhat
8 longer to dry buttermilk than to dry skim milk. That
9 additional drying time requires additional natural gas.
10 While the specific additional cost would vary directly
11 with the actual costs of natural gas, the incremental fuel
12 cost to CDF and CDF Southwest in 2023 would be
13 approximately \$0.02.

14 For both the CDF plant in Michigan and the CDF
15 Southwest plant in Texas, the actual prices received for
16 the sale of nonfat dry milk and buttermilk powder are
17 closely aligned. In addition, in no month was the price
18 for buttermilk powder more than 18% less than the prices
19 received for nonfat dry milk. And for CDF and CDF
20 Southwest, the reality is that buttermilk receives nearly
21 the same price as low-heat nonfat dry milk.

22 The prices received for nonfat dry milk produced
23 in Michigan and Texas, as well as the prices received for
24 buttermilk produced in each location, are also aligned.
25 There is very little difference between the prices
26 received for either product that could be attributed to
27 geography. Those differences that do occur on a
28 month-to-month basis are virtually nonexistent on an



1 annual basis. There appears to be little regional
2 difference in the prices received.

3 The price information from Continental Dairy
4 Facilities and Continental Dairy Facilities Southwest is
5 consistent with the Dairy Market News data comparing
6 nonfat dry milk and buttermilk powder prices in both the
7 Western market and the Eastern/Central Market. The
8 average of the buttermilk powder price relationship of
9 97.5% testified to by Chris Allen is consistent with the
10 CDF/CDF Southwest price relationship of 96.7%.

11 CDF and CDF Southwest's costs to manufacture
12 buttermilk powder is higher than the cost to manufacture
13 nonfat dry milk. That additional cost is due to
14 additional drying time and associated fuel. Although the
15 costs will vary with natural gas prices, the Department's
16 estimate that the make costs for buttermilk powder are
17 \$0.02 higher than the make costs for nonfat dry milk are
18 appropriate.

19 Q. Thank you, Mr. Cooper.

20 A. Thank you.

21 Q. So I'd like to ask you a few more questions about
22 your statement. And I would like to start actually with
23 something you stated on page 8, where you stated the
24 reasons for our decision not to participate in those
25 surveys will be testified to separately.

26 Now, Select may have a statement at the end of the
27 proceeding addressing all the proposals in which that
28 issue would be addressed, but since you are here, and we



1 can talk about it, I thought I would ask now.

2 Dr. Stephenson's study that was conducted in 2018
3 or so, do you recall receiving an invitation to
4 participate in that survey?

5 A. Yes.

6 Q. Did you participate in that survey?

7 A. No, we did not.

8 Q. And was the reason for your participation that it
9 wasn't a full census of all applicable plants, that all
10 plants would be required to participate in?

11 A. That, and it wasn't a mandatory, so we chose not
12 to participate.

13 Q. Do you recall if your plants were invited to
14 participate in the 2023 update to those surveys that IDFA
15 had commissioned?

16 A. I believe we were.

17 Q. And did you participate in those studies?

18 A. No, we did not.

19 Q. Was the reasoning the same?

20 A. Yes.

21 Q. Now, I don't want to ask about their operations.
22 But when you worked for CDI, did CDI participate in
23 those -- in the surveys of the California Department of
24 Food and Agriculture?

25 A. Yes.

26 Q. And why did they participate in those studies?

27 A. Because they were mandatory.

28 Q. Did you have a concern about the conclusions that



1 were drawn by the California surveys when you worked for
2 CDI?

3 A. No, I did not.

4 Q. Would you have a concern with another survey that
5 was neither mandatory nor comprehensive?

6 A. I would. The California surveys were mandatory,
7 and they were audited, and they were very detailed. I
8 participated in them. So I know that they were extremely
9 detailed and -- I -- if another survey was done the same
10 way, I would -- I would participate in it, but if it was
11 not done the same way, I would not.

12 Q. I'd like to ask also about the production of
13 buttermilk powder at your two plants.

14 Now, you testified that in some months there was
15 no buttermilk powder sold.

16 A. Correct.

17 Q. Now, why would that occur?

18 A. In those months we did not produce butter. We
19 looked at cream, and we run a formula based on cream where
20 we sell cream as fluid cream or we sell -- if the
21 multiples are high enough, we'll sell the majority or all
22 of our cream for fluid cream. If the -- if the multiples
23 do not dictate that it's a good enough return, we'll run
24 butter. We typically run butter in months where the
25 multiples don't support selling fluid cream. We put that
26 butter away, and we use it for our retail operations.

27 Q. So I think during the course of this hearing there
28 may have been a couple passing references to cream



1 multiples but -- so the record is clear, can you share
2 with us what a cream multiple is?

3 A. Basically a cream multiple reflects the market
4 conditions for the cream. So we take the CME butter price
5 and we take it times a multiple based on market demand.
6 And if we see that that return on -- and we take
7 buttermilk into that process as well. We look at the
8 return on buttermilk -- on the cream and on butter, and we
9 look at what brings the best margin to the plant. And we
10 make a decision whether we move that to fluid cream or we
11 move it into the butter operations.

12 Q. So let me walk through this, kind of step by step
13 and make sure that we have got this correct.

14 So raw milk arrives at one of the plants, and you
15 skim that -- that raw milk, correct?

16 A. Correct.

17 Q. And the skim then becomes nonfat dry milk,
18 correct?

19 A. Correct.

20 Q. And that for the most part happens every day?

21 A. Correct.

22 Q. The cream then, you and your team make a decision
23 about the best economic outlet for that cream; is that
24 right?

25 A. Yes, we do that.

26 Q. And when the cream multiple is high enough, the
27 economic decision is to sell the bulk cream; would that be
28 right?



1 A. That is correct.

2 Q. And at a lower multiple, the better economic
3 decision is to make butter, correct?

4 A. Correct.

5 Q. So if you are not making butter, there's no
6 buttermilk to dry; is that right?

7 A. That's correct.

8 Q. So -- now, when you do make butter, do you -- do
9 you always make buttermilk powder?

10 A. Most of the time we make buttermilk powder, but we
11 have made buttermilk condensed. If the market conditions
12 are better to sell buttermilk condensed, we'll sell
13 buttermilk condensed, but that's very seldom.

14 Q. Now, you have had a chance -- I don't know if
15 you -- I don't think you were here when Chris Allen
16 testified yesterday. I think you were still in transit,
17 correct?

18 A. That's correct.

19 Q. He, in his testimony -- which I think you have
20 seen -- he talked about how the relationship between the
21 price of buttermilk powder and the price of nonfat dry
22 milk has converged, I suppose, over time.

23 Given your experience in dairy product
24 manufacturing and sales, do you have any observations or
25 reasoning as to why that price relationship might have
26 changed?

27 A. Yes. Buttermilk used to be used primarily in
28 baking, and it was really kind of a byproduct of butter



1 making. In recent years, the food industry has realized
2 the attributes and nutritional attributes of using
3 buttermilk powder in formulations, such as infant formula.
4 One of our biggest customers is an infant formula customer
5 for buttermilk powder.

6 And what we used to sell buttermilk powder for was
7 a very -- at times, very, very cheap. We would lose money
8 on it. Now we're seeing a relationship where buttermilk
9 powder is, at times, more valuable than nonfat dry milk
10 because of the food industry starting to see those
11 nutritional attributes in buttermilk powder and
12 nutritional products, and they put formula in other things
13 rather than just baking.

14 Q. So the demand profile for that product has changed
15 over the last 20 years or so?

16 A. Yes.

17 Q. The difference --

18 A. Especially in the last two to three years, that
19 demand -- that demand profile and the pricing has changed
20 dramatically.

21 Q. Now, based on the fact that the solids in
22 buttermilk or buttermilk powder are not included in the
23 price formulas right now, other than the cost to process
24 the buttermilk, does that represent pure profit to your
25 plant?

26 A. It certainly helps it. I'm not sure how to
27 comment on that.

28 Q. You can stick with "it helps," if you like.



1 A. Yes.

2 Q. And just a couple of things to clarify in your
3 statement, as you have presented it.

4 On page 4 and page 5, where you see the word
5 "null," are those the months where there was no buttermilk
6 sold by the plants?

7 A. That's correct.

8 Q. And then on your graphs on page 7, there is no
9 legend for the Y axis. And I understand that is because
10 you did not want to particularly peg the exact sales
11 prices on that -- those graphs; is that correct?

12 A. That is correct.

13 Q. Okay. So I have one more question for you, and it
14 relates not so much to this statement, but to a question
15 that was asked of Ms. Stehouwer yesterday. And it has to
16 do with the component tests of the farm milk coming into
17 your plants and the component tests of the silos at your
18 plants.

19 Now, I'm not asking you for the numbers
20 themselves, but she stated that the -- those numbers,
21 whatever they are, are aligned, that the components you
22 realize from the farm tests are the same components you
23 realize when you test your silos.

24 Is that your experience?

25 A. Yes. We track that, and we are very confident
26 that those are aligned.

27 Q. Now, similarly, through whatever other measures
28 you utilize in making products, to the extent there are



1 solids losses through the process, do you find that
2 butterfat losses exceed those of solids in total?

3 A. No. We -- we have set KPIs that we look at and
4 the plant is measured on, the management staff is measured
5 on. We have set guidelines for solids nonfat, and we have
6 set guidelines for butterfat. And the butterfat solids --
7 the butterfat losses that are acceptable are lower, the
8 standard is lower than the -- on a percentage basis than
9 solids nonfat.

10 Q. So when you are comparing farm components and silo
11 components, they line up?

12 A. Yes.

13 Q. And then once you start processing, you find that
14 solids -- other solids are actually lost at a higher rate
15 than butterfat. Is that what your experience is?

16 A. That's my experience, yes.

17 Q. Okay.

18 MR. MILTNER: Your Honor, I don't have any other
19 questions, and we would make Mr. Cooper available for
20 questioning from others.

21 THE COURT: Questions for this witness?

22 Mr. Rosenbaum.

23 CROSS-EXAMINATION

24 BY MR. ROSENBAUM:

25 Q. Steve Rosenbaum for the International Dairy Foods
26 Association.

27 You testified that you chose not to participate in
28 either the 2019 Stephenson survey or the 2022 Stephenson



1 survey; is that correct?

2 A. That is correct.

3 Q. So we have heard testimony that the 2023
4 Stephenson survey of 2022 costs covered 91.2% of total
5 nonfat dry milk production in the United States. I'd ask
6 you to accept that number. Not -- obviously you're not in
7 a position to verify that.

8 A. No.

9 Q. Would -- would Select be a material component of
10 the -- of the seven -- excuse me -- of the 8.8% that
11 didn't participate?

12 A. Most likely.

13 Q. Okay. Okay. And it was simply, if you will, a
14 voluntary decision on your part not to -- not to have
15 those numbers included; is that right?

16 A. Yes.

17 Q. Okay. And -- okay. Were you -- and I take it you
18 were aware, obviously, because you got a specific
19 invitation, that the results of the survey would be
20 submitted as part of this Make Allowance hearing, correct?

21 A. Yes.

22 Q. And in also choosing not to participate in the
23 survey of 2019 costs, had you been aware that
24 Dr. Stephenson had actually been commissioned by USDA
25 itself to -- to make that study?

26 A. At the time I was not, no.

27 MR. ROSENBAUM: That's all I have. Thank you.

28 ///



CROSS-EXAMINATION

1
2 BY MS. HANCOCK:

3 Q. Good morning, Mr. Cooper. Just a couple
4 questions.

5 You have talked about your plants that you have in
6 Texas and Michigan. I'm wondering if you have -- well,
7 and you also have some experiences at CDI, so with
8 California plants as well; is that fair?

9 A. That is fair.

10 Q. So given your experiences, how representative do
11 you believe that the California cost survey would be as
12 extrapolated and applied to the rest of the country?

13 A. There are going to be some nuances, as was earlier
14 discussed. Energy costs are higher in California. Labor
15 costs are higher. Benefits are higher. All those things
16 are quite a bit higher. We -- I have compared the
17 California study to our -- our current costs that we see
18 at our plants right now, and when you look at the
19 subsets -- those subsets, there is a difference.

20 Q. And are you willing to share with us which way
21 that difference goes?

22 A. Labor costs and energy are lower in the Midwest
23 and in Texas than in California.

24 Q. And are you comparing it to that 2016 survey?

25 A. Yes.

26 Q. Okay. So even comparing 2016 to today, you still
27 see some differences?

28 A. Some differences. They are very similar with



1 today's costs, especially since COVID, because all of our
2 costs went up since COVID, especially in labor. To retain
3 our people, we had to pay more in labor.

4 Q. Okay. Have you ever dumped your butterfat solids
5 or your buttermilk powder?

6 A. Yes, we have.

7 Q. And how frequently does that occur?

8 A. As seldom as possible. We -- we know the value of
9 buttermilk. The only time that we dump buttermilk is when
10 we have a choice whether we're dumping milk on the farm
11 because there's more production than the plant can handle.
12 And since we're owned by a cooperative, we do not dump our
13 members' milk. So at that point we make the decision to
14 dump buttermilk to avoid dumping milk on the farm.

15 Q. Okay. And how frequently does that occur?

16 A. Not very frequently.

17 Q. Okay. Is it seasonal or due to some one-off
18 situation?

19 A. It's seasonal, and it really is a decision made
20 whether we can -- like I said, it goes back to how -- you
21 know, what kind of -- what kind of volume do we have
22 coming in from the farm, how much can we balance on a
23 daily basis within the plants. We tend to run the plants
24 at overcapacity as much as possible. So once we get to
25 the overcapacity limits and we see that we can't handle
26 the buttermilk, then we'll dump it. But we do that very
27 seldomly.

28 Q. And that's because of the cooperative, you owe



1 your members a responsibility to take all the milk that
2 they produce; is that fair?

3 A. That is fair. That is correct.

4 Q. And have you been able to honor that commitment to
5 your members?

6 A. Yes, we have.

7 Q. When a butter plant purchases cream to make
8 butter, how does that butter plant pay for the buttermilk
9 solids?

10 A. Basically when we purchase cream, it is in the
11 cream -- it's -- it's calculated in the cream price. So
12 when we buy the cream either -- when we buy outside cream
13 from others, because we do handle cream from others, that
14 is based on the -- on the -- on the multiple that we pay
15 for the cream.

16 Q. And you talked about finding the opportunity or
17 the outlet for using the buttermilk powder for use in an
18 infant formula. I know as a very protective mom I'm
19 sensitive about what I put into my kids' bodies, and I
20 know that there's lots of specifications. I'm just
21 wondering if there are any additional or more strict
22 classifications for manufacturing infant formula than you
23 would have for other uses?

24 A. Yes.

25 Q. Can you share with us what those are?

26 A. It's a bacterial analysis is primarily what it is.

27 Q. So additional testing and monitoring?

28 A. Yes.



1 Q. Do you have to build any other features into the
2 process to make sure that -- that you hit or achieve or
3 exceed those bacterial thresholds for testing?

4 A. No. Basically the -- if the -- if the plant is
5 doing everything it is supposed to be doing from a food
6 safety standpoint, you do not have to build that in. So
7 as long as you are adhering to a very strict food safety
8 program, you don't have to do that.

9 Q. Okay. And I think you said this already. I just
10 want to make sure I understood. On your -- on page 4 and
11 5 when you have tracked the indexes for your two plants
12 for those sales, where you have a -- an index indicator
13 there that says "null," that just means that you did not
14 sell any -- any in that month?

15 A. That is correct.

16 Q. Okay. Can you -- can you share with us what
17 volumes we're talking about here? I mean, is that a huge
18 drop-off when you get to a zero or -- or is it kind of
19 nominal sales up until that point so that it's not a huge
20 drop at that point?

21 A. Well, it's usually a pretty good drop-off at that
22 point, because our -- we have very large churns that when
23 we produce butter, we produce quite a bit of buttermilk
24 powder. There are some months when we will start ramping
25 down. If we're looking at the months there, like August
26 and September, usually, we'll start ramping down towards
27 June, July. But that really depends on the demand for
28 cream and how we start ramping down the butter plants.



1 Q. Okay. So those are just intentional business
2 decision that you make as you ramp down in those summer
3 months?

4 A. Yes.

5 Q. And then what about in this example on page 4,
6 we're looking at for Michigan, you had -- June of '21 and
7 November of '21?

8 A. Those were both months when we -- we weren't
9 churning.

10 Q. Okay.

11 A. I mean, by the time we get to November, and
12 usually into November, you know, the butter season is over
13 because if you haven't fulfilled the pipeline with butter
14 by October, it doesn't make it to the store shelves by
15 Thanksgiving and Christmas. So in those months we'll
16 start ramping down as well.

17 Q. Okay. So just seasonal responsiveness?

18 A. That's exactly what it is.

19 Q. Okay. And then I think you noted that you -- you
20 try not to have an overlap between the months, in the same
21 months, between Michigan and Texas. Was that right?

22 A. That's just random. It depends on the -- on the
23 cream sales and the cream demand in those regions and
24 butter demand in those regions.

25 Q. So it would be coincidental if it did overlap, not
26 an intentional business decision?

27 A. That's correct.

28 Q. Okay.



1 MS. HANCOCK: That's all I have. Thank you so
2 much for your time.

3 THE WITNESS: Okay.

4 CROSS-EXAMINATION

5 BY MR. ENGLISH:

6 Q. Good morning, Mr. Cooper. My name is Chip
7 English. I represent the Milk Innovation Group.

8 So I was trying to follow along and at the same
9 time was jotting down questions, so if I got lost, I
10 apologize, but I also don't want to repeat from your
11 questions from your counsel.

12 Is some fat lost from when farm level protein and
13 fat components are first tested through the end of the
14 cheese manufacturing system?

15 A. We don't make cheese.

16 Q. Do you know from your experience in making cheese
17 whether fat is lost from farm level protein and fat
18 components when they are first tested through the cheese
19 manufacturing system?

20 A. I mean, you are asking me something I haven't done
21 in over probably 40 years, so...

22 Q. Okay.

23 A. You know, technologies have changed quite a bit
24 from when I was making cheese, so I --

25 Q. Well, I will move along.

26 A. -- I'll refrain from commenting on that.

27 Q. I apologize, I thought some witnesses seemed to
28 get you to talk about cheese, so I thought maybe you had



1 more experience recent. But that's fine.

2 So for your butter plant, do you make Grade AA
3 butter of the type reported to the NDPSR?

4 A. Yes, we do.

5 Q. Do you use any whey cream in that butter?

6 A. No, we do not.

7 Q. Is that because whey cream isn't treated as
8 Grade AA?

9 A. That's correct.

10 Q. How much does whey cream sell for?

11 A. You know, we don't really participate in that
12 market, so I don't -- I have no idea.

13 Q. Okay.

14 MR. ENGLISH: I have no further questions then.
15 Thank you.

16 THE COURT: Further questions from anyone else
17 aside from AMS?

18 Yes, Mr. Rosenbaum.

19 CROSS-EXAMINATION

20 BY MR. ROSENBAUM:

21 Q. Steve Rosenbaum for the International Dairy Foods
22 Association.

23 You made a comparison between California labor
24 costs and labor costs where your plants are located,
25 correct?

26 A. Yes.

27 Q. Do you -- do you pay at the minimum wage?

28 A. No, we do not.



1 Q. Do you pay substantially higher than the minimum
2 wage?

3 A. Yes, we do.

4 MR. ROSENBAUM: That's all I have.

5 THE COURT: Seeing no one else, AMS?

6 CROSS-EXAMINATION

7 BY MR. WILSON:

8 Q. Good morning, Mr. Cooper.

9 A. Good morning.

10 Q. Thank you for coming and testifying today. This
11 is Todd Wilson, USDA.

12 I have a few questions about -- about the -- your
13 testimony and wanted to kind of dig into some of the
14 information, expertise-wise, that you have.

15 So when we talk about the nonfat solids yield
16 factor in our formulas, what -- what is it that you feel
17 like should be included in that -- in that factor?

18 A. Specifically?

19 Q. Specifically should we be looking at all powders?
20 Should we be looking at nonfat dry milk powders? Should
21 we be looking at buttermilk powders?

22 A. Yes.

23 Q. All of the above?

24 A. (Shakes head.)

25 Q. Each one of those powders have different --
26 (Court Reporter clarification.)

27 BY MR. WILSON:

28 Q. I'm sorry, can you verbally respond?



1 A. Yes. I'm sorry.

2 Q. Each one of those products have unique yields
3 inherent to themselves?

4 A. Correct.

5 Q. Do you have any information as to what those
6 different yields should be?

7 A. We -- we follow those yields pretty closely, and,
8 again, it depends on butterfat. It depends on the
9 components. So your moisture in buttermilk powder is
10 lower than your moisture in nonfat dry milk, so you are
11 going to get a lower yield factor on buttermilk powder
12 than you would on nonfat.

13 Q. So there's been some historical yield factors on
14 buttermilk powder dating back to some earlier hearings
15 that we had in the early 2000s.

16 Is it -- do you feel like those yield factors are
17 still appropriate given today's environment and components
18 and things?

19 A. I think they have to be looked at based on today's
20 processing capabilities and the efficiency of today's
21 equipment.

22 Q. The next question is, when you have 100 pounds of
23 nonfat milk solids, you get 100 pounds of nonfat milk
24 solids into your plant, do you track or do you know what
25 should go into those products, how much is going into
26 nonfat dry milk, how much is going into butter, how much
27 is going into buttermilk powder?

28 A. We track it -- yes, we do track it. And -- and we



1 track on how much should go into powder, how much should
2 go into either cream or butter. If it goes into cream,
3 obviously, that -- the solids and the butterfat follow the
4 cream. If it goes into butter, obviously how much gets
5 into the butter and how much gets into the buttermilk
6 powder, those yields are followed. We also calculate our
7 plant loss. And then we compare -- that is basically what
8 we put in our KPIs as to our plant performance.

9 Q. What would -- what is a KPI?

10 A. Key process indicators.

11 Q. Key process indicators. Okay. Thank you.

12 So do you have any -- I don't want to ask you for
13 proprietary information, but do you have any information
14 from an industry standard about if you had 100 pounds of
15 nonfat milk solids, how much should go into making nonfat
16 dry milk, how much should go into buttermilk powder? Is
17 there a standard?

18 A. There's standards that I have used over the years
19 based on my experience and based on my former employers as
20 well, and that's -- and we look at those standards, and
21 then we compare our -- we set our own standards as well.
22 So we have our own internal standards that we set.

23 Q. Do you have any figures that you might be able to
24 share with us from an industry standard, not a proprietary
25 standard?

26 A. They are pretty close, so I would probably refrain
27 from sharing those.

28 Q. So those are going to be out there in the public



1 domain?

2 A. They should be out in the public domain.

3 Q. That's what I'm looking for.

4 So a couple of questions by some other parties
5 asked about how a butter/powder plant pays for their
6 nonfat milk solids.

7 Is it your understanding that all nonfat milk
8 solids coming into the plant are paid for at -- or valued
9 at the Class IV nonfat solids price?

10 A. Right.

11 Q. Do you make whole milk powder?

12 A. No.

13 Q. You do not.

14 When Mr. Miltner was asking you about some of the
15 prior testimony with -- with some plant accountants, there
16 was some discussion with him about you tracking your
17 solids losses versus your butterfat losses. Can you
18 elaborate a little bit more about those -- about those two
19 components and how you -- how they track, how you -- how
20 your plant handles those?

21 A. Certainly. Basically it's -- from us -- our
22 standpoint, we look at a mass balance. With milk coming
23 in the door, we look at our inventories, we look at what
24 we produce on a daily basis, and then we look at
25 components. And then at the end of the day when we
26 compare everything that's came in the door, what we have
27 produced and the component levels, you know, what we're
28 missing is our loss.



1 And so we track those. There's standards that I
2 have always used in my career through former employers
3 and -- and what we have established internally as to
4 what's acceptable. Usually -- and I'll -- I won't give
5 you our standards, but I can tell you, on a standards
6 basis, if you look at butterfat losses as compared to
7 solids nonfat losses, solids nonfat losses usually run
8 about a percent higher than butterfat losses.

9 So we -- we set two guidelines, and the guidelines
10 for our managers are, here's your acceptable butterfat
11 loss, here's your acceptable solids nonfat loss. And if
12 you exceed those, obviously it's going to affect your
13 paycheck.

14 Q. Okay. On page 8 of your testimony, you -- in
15 your -- in that middle paragraph, you talked about costs
16 of making buttermilk powder versus costs of making nonfat
17 dry milk, and you talked about the incremental fuel
18 increase.

19 Could you talk a little bit more, elaborate more
20 about what that -- what causes that? I'm thinking it's in
21 the drying time, how long it takes more?

22 A. When we -- when we dry buttermilk, there's two
23 things that affect our efficiencies there. When we go --
24 when we switch from nonfat to buttermilk, we have to have
25 a purge time in between to where we have no product, so
26 that we do not intermix the two products, because it's all
27 dried on the same equipment. So that's calculated in it.

28 But the other thing that's calculated in is



1 because there's a higher fat percentage in the buttermilk
2 than there is in nonfat. We have to run at a slower speed
3 because it -- buttermilk has certain properties that are,
4 I would say a little stickier, so you have to run a higher
5 temperature and a lower throughput to the dryer to make
6 sure that you do not plug your bag houses or plug your
7 cyclones on a dryer that has cyclones.

8 So the components in the buttermilk dictate on how
9 you dry -- how you run the dryer. Similar to whole milk.
10 I have dried whole milk powder in the past. You run --
11 when you run whole milk versus nonfat, you lose 25%
12 efficiency in your dryer because you have higher solids,
13 higher fat, and it runs completely different.

14 So how that equipment runs between the two
15 different products and the constituents in the product
16 dictate on how you run. And when you run hotter,
17 obviously, you have to run -- you to have burn more gas.

18 Q. So the 25% that you mentioned of decreased
19 efficiency, was that whole milk powder?

20 A. Yes.

21 Q. What's that in relation with the buttermilk
22 powder? What kind of inefficiencies do you experience?

23 A. It's not quite that much. It's -- like I said, we
24 looked at that \$0.02 cost price in there that was USDA
25 established, and we agreed that was about the difference
26 between the two.

27 Q. All right. Thank you.

28 MR. WILSON: That's all from AMS. Thank you,



1 Mr. Cooper.

2 REDIRECT EXAMINATION

3 BY MR. MILTNER:

4 Q. Mr. Cooper, just a few questions to tie up some
5 things.

6 I understand your protection of confidential
7 information. I do want to see if we can help with some
8 yield data on buttermilk.

9 In its prior decision USDA stated that there are
10 0.0479 pounds of -- let me read this correctly -- let me
11 just read it instead of trying to summarize it.

12 "According to the Economic Research Services
13 publication, nonfat milk solids in dry buttermilk are
14 0.0479 pounds per pound of nonfat milk solids."

15 Does that sound reasonable to you?

16 A. Yes.

17 Q. And for every pound of dry buttermilk, there are
18 0.919 pounds of nonfat milk solids.

19 Does that sound reasonable to you?

20 A. Yes.

21 Q. So that is from a 2002 USDA Final Decision.

22 In the intervening 20 years or so, those numbers
23 still sound reasonable to you?

24 A. They sound reasonable, but I think that it
25 would -- it would bear being -- it would -- it would
26 dictate we probably ought to look at it based on newer
27 production facilities that are a lot more efficient. And
28 we're capturing more -- more solids and more butterfat on



1 our equipment now than we ever have due to changes in
2 technology.

3 Q. Okay. But it certainly wouldn't be less than what
4 USDA said 20 years ago?

5 A. No.

6 Q. Now, if we just think about nonfat dry milk. If
7 you take a pound of nonfat solids, and you dried it, would
8 the yield be higher than 0.99?

9 A. Yes.

10 Q. Would it be reasonable for a plant of average
11 efficiency to yield something more like 1.02?

12 A. Yes.

13 Q. And that's just on the nonfat dry milk part of it,
14 correct?

15 A. That is correct.

16 Q. And that assumes that you skimmed off the cream,
17 and all those solids that would end up in buttermilk
18 powder are still there to be dried or condensed or
19 utilized in some fashion?

20 A. That's correct.

21 Q. And when you -- okay, so -- and then last question
22 would be, you -- you testified to it, and I -- you
23 clarified it I think with AMS, but just to make sure it's
24 completely clear.

25 That relationship of two additional cents to dry
26 buttermilk powder, which was pulled from that same 2002
27 decision, that \$0.02 difference, even in today's price
28 environment to you, is still a reasonable difference



1 between the costs of drying those two products?

2 A. That's correct.

3 Q. Thank you.

4 MR. MILTNER: I don't have any other questions,
5 your Honor. And I would move the admission of
6 Exhibit 223.

7 THE COURT: Any objections?

8 Seeing none, Exhibit 223 is entered into the
9 record.

10 (Thereafter, Exhibit Number 223 was received
11 into evidence.)

12 THE COURT: Thank you, Mr. Cooper.

13 MS. TAYLOR: We have been going for about an hour
14 and 15. Let's come back at 11:00.

15 (Whereupon, a break was taken.)

16 THE COURT: Let's come to order. I'll go ahead
17 and swear in the witness, I guess.

18 Please raise your right hand.

19 NANA FARKYE,

20 Being first duly sworn, was examined and
21 testified as follows:

22 THE COURT: Your witness.

23 DIRECT EXAMINATION

24 BY MR. MILTNER:

25 Q. Good morning, Dr. Farkye. How are you?

26 A. I'm well. Thank you.

27 Q. You may have to get a little closer to the mic,
28 mostly so that our folks listening online can hear you.



1 Before we get going, could I ask you to give your
2 name, spell it, and then give your business address,
3 please?

4 A. My name is Nana Farkye or Farkye. People say it
5 in different ways, but I prefer Farkye. Nana, N-A-N-A,
6 Farkye, F as in Frank, A-R-K-Y-E. Business address,
7 2929 Floyd Avenue, Number 330, Modesto, California, 95535.

8 Q. And, Dr. Farkye, do you have two documents with
9 you, one of them at the top reads Exhibit Select-7 and the
10 other in the upper right reads Select-8? Do you have
11 those with you?

12 A. That is correct.

13 Q. And have you seen these before?

14 A. Yes, I have.

15 Q. Select Exhibit 7, is this the report and testimony
16 that you prepared to present today at this hearing?

17 A. That is correct.

18 Q. And I understand that Exhibit Select-8 is some
19 information that you relied upon in preparing your report
20 that wasn't easily available to the world, so you -- we
21 wanted to provide that as an exhibit for the hearing; is
22 that correct?

23 A. That is correct.

24 Q. And I think for perhaps part of your testimony you
25 are going to put some information on the screen from
26 your -- from your testimony; is that correct?

27 A. That is correct.

28 Q. Great. If you could, Doctor, provide us -- go



1 through the introduction materials on your background, and
2 then pause, and I can ask you a couple questions, and then
3 we'll go from there. Okay?

4 A. Sure.

5 THE COURT: Let's mark the exhibits.

6 Select-7, top right-hand corner, will be marked as
7 Exhibit 224.

8 (Thereafter, Exhibit Number 224 was marked
9 for identification.)

10 THE COURT: Exhibit Select-8 will be marked 225
11 for identification.

12 (Thereafter, Exhibit Number 225 was marked
13 for identification.)

14 THE COURT: Thank you. Your witness.

15 MR. MILTNER: And before you start, just for the
16 record, I'm not good at putting things on the record, but
17 I want to put on the record, I wrote myself a note to get
18 these marked before we started. And I'm really not good
19 at that. But Dr. Farkye --

20 THE COURT: No problems at all.

21 THE WITNESS: So I have been retained by Select
22 Milk Producers to provide a written report expressing my
23 independent opinion on milkfat recovery or milkfat
24 retention during cheese making. I have a Bachelor of
25 science degree in biochemistry and nutrition from the
26 University of Ghana. Came out to do my Master's and Ph.D.
27 at Utah State University in nutrition and food sciences.

28 Then I worked as a post doctoral scientist at the



1 University College, Cork, before joining California
2 Polytechnic State University where I worked as an
3 assistant professor, associate professor, full professor,
4 over a 25-year period, rising through the ranks. I taught
5 dairy chemistry, dairy processing, cheese and fermented
6 dairy foods, at both undergraduate and graduate levels.

7 My research primarily focused on emphasis on
8 cheese technology and cheese ripening. I have also worked
9 an enzymes in cheese and enzymes in milk -- milk.

10 I served as a judge at the world and U.S.
11 championship cheese contest and the ACS cheese contest.

12 I'm an author or co-author of several
13 peer-reviewed articles, industry presentations, book
14 chapters, encyclopedia articles in areas of dairy
15 chemistry, microbiology, and cheese technology.

16 I took an early retirement in 1995 to serve as a
17 consultant for the dairy industry, which I have done
18 since. My role as a consultant, I advise, troubleshoot,
19 and find solutions to problems and develop new products
20 and streamline processes for the dairy industry.

21 My CV attached in Appendix 1.

22 BY MR. MILTNER:

23 Q. Thank you, Dr. Farkye.

24 Now, you noted that your CV is attached. It's
25 pages 7 and 8 of your testimony.

26 I notice at the end that you said there were over
27 a hundred different research publications that you were
28 involved with; is that correct?



1 A. That is correct.

2 Q. And you provided a smaller subset of those that
3 more directly relate to butterfat retention or butterfat
4 recovery; is that right?

5 A. That is correct.

6 MR. MILTNER: Your Honor, we would ask that
7 Dr. Farkye be recognized as an expert in the areas of
8 cheese processing, cheese manufacturing, and food science.

9 THE COURT: Seeing no objections, I so find that
10 this witness is qualified to testify as an expert on those
11 topics.

12 BY MR. MILTNER:

13 Q. So, Dr. Farkye, I think perhaps the best way to
14 proceed with your testimony is to have you present it as
15 you would to folks you wanted to educate, and if that
16 involves putting some information up on the screen so
17 folks can follow along, that would be great. And then we
18 can ask some additional questions either throughout or at
19 the conclusion.

20 Does that sound all right with you?

21 A. Sure.

22 Q. Excellent. I'll let you take the keys from here.

23 A. So if it's okay with you, I would just project my
24 talk on the screen, and then I would just point along as
25 we read it, or at least talk about it.

26 So the first thing is to understand cheese making.
27 Cheese making involves a number of steps, which I've
28 outlined here. First you are going to bring the milk into



1 your plant, and you are going to standardize the milk to a
2 protein of casein-to-fat ratio.

3 Then you are going to pasteurize the milk. Of
4 course, some people choose to use raw milk, but we're
5 going to focus on pasteurized milk here.

6 Then you transfer the milk into a cheese vat, and
7 then you add your ingredients which are color for -- if
8 you are making yellow cheddar, you are going to add color.
9 Then you are going to add your starter culture, which is
10 harmless lactic acid bacteria that you are adding to the
11 milk. Then you are going to add calcium chloride -- or
12 may or may not add it depending on the type of milk you
13 are using. Then you are going to add the coagulants that
14 we call rennet or chymosin.

15 Then you are going to allow the milk to settle for
16 about 30 minutes, and that's when we call coagulation or
17 curd formation. And then after the curd is firm enough,
18 you are going to cut the curd into cubes.

19 Okay. And then after cutting that curd into
20 cubes, you are going to allow the curd to heal for about
21 five minutes. Then you are going to begin to stir and
22 cook the curd in the whey. So now you have curd and whey,
23 and you are going to cook.

24 Then after you cook to the desired temperature,
25 here we are talking about cheddar cheese, so many times we
26 are going to cook to about 100 to 102 degrees Fahrenheit.
27 And then when -- this allows the cultures to grow and give
28 you the right acidity that you desire.



1 Then after that, you are going to drain the whey.
2 So at this point that we are going to think of fat
3 recovery or fat retention. So when you cut the curd and
4 you drain the whey, some of the milk components are
5 retained in the curd and others are lost in the whey. And
6 so how you treat the curd during cheese making can affect
7 how much retention of butterfat or casein that you have.

8 Then after that, after you drain the whey, you are
9 going to matt and cheddar the curd, and you are going to
10 mill the curd or cut it into small finger size chips. And
11 then you are going to salt it, hoop or mold it, and
12 package it.

13 And it can be done either manually or using
14 towers. Current cheese plants, large cheese plants will
15 use block formers or cheese towers.

16 Okay. So that's the basic steps of cheese making.

17 Now, to make that cheese efficiently, you want to
18 recover as many -- or as much of the milk components as
19 possible. Because really the whole intent is to preserve
20 milk, and you don't want to lose the components -- every
21 pound of milk solids that you retain in the cheese, the
22 more profitable you are. Because if it's lost in the
23 whey, and you don't have at market for the whey, that's
24 it. Okay. Even though there are ways to recover that.

25 Okay. So the amount of fats that is lost in the
26 whey is very small, but it's -- it can all be very
27 significant. So when fat is lost in the whey, it's called
28 whey fat or you get whey cream. Now, some companies may



1 choose to add the whey cream back, but it is not a
2 standard practice in industry, because when you add whey
3 cream, you ought to think about bacteriophage and
4 contamination. So you -- you have to treat as well. So
5 it is not a standard practice, but that's not to say that
6 it's not done.

7 Okay. Now, to make cheese we are going to start
8 with milk. So what I have here is a table of milk
9 components. And we have different breeds of cattle in the
10 U.S. or worldwide. The left column shows the components
11 of fat, protein, lactose, ash, total solids, water,
12 protein-to-fat ratio.

13 Then the second column shows the composition of
14 Holstein milk. Holstein is the largest breed of cattle we
15 have in the United States.

16 Then in the fourth column -- the fifth column is
17 Jersey cattle. That's the second largest breed. So if
18 you can -- we can focus on those two there. Holstein milk
19 has about 3.5% fat; Jersey milk has about 5.05% fat.

20 Protein in Jersey -- Holstein milk is 3.2% on the
21 average; protein in Jersey milk is about 3.79 or 3.8%.

22 So if you look at those, the protein-to-fat
23 ratios, Holstein milk has a protein-to-fat ratio on
24 average about 0.91 and Jersey milk is about 0.75.

25 Now, USDA calculates the average protein-to-fat
26 ratio in standard milk, which contains 2.99% protein or
27 3.5% fat, with a ratio of .85. So it is closer to
28 Holstein milk than Jersey milk. But if you blend the two,



1 you are going to get something very, very close.

2 Actually, in my Master's thesis which was done in
3 1984, on the effect of casein-to-fat ratio on fat
4 retention in cheese making, I came up with a chart here,
5 which holds true up till today.

6 So hopefully I can -- so if we look at the chart
7 that shows clusters of three triangles. Essentially what
8 we did was we took Holstein milk, which is the cluster of
9 three triangles in the bottom right corner. The
10 protein-to-fat ratio or the casein-to-fat ratio was
11 average of .71.

12 Then we took the cluster in the top left corner is
13 All-Jersey milk. So those had -- because of the high fat
14 and high protein, the casein-to-fat ratio is about .64
15 average.

16 And the cluster in the middle is a blend of both
17 milks. So we blended Jersey milk and Holstein milk to get
18 what is typical in the industry. And that's the cluster
19 in the middle.

20 And we made cheddar cheese to see if we are going
21 to get differences in fat recovery.

22 Now, what we found is there's no difference in fat
23 recovery, so the higher protein-to-fat ratio, the more fat
24 you get in the cheese, but as a percentage of recovery, it
25 was about the same.

26 And why do we standardize milk for fat recovery?
27 We do standardize milk to be able to meet the standards of
28 identity for cheese. For instance, cheddar cheese must



1 have a minimum of 50% fat in it, dry matter, and no more
2 than 39% moisture. So if you do not standardize the milk
3 to the right casein-to-fat ratio, you are going to lose
4 the milk components, and you are not going to recover.
5 And then you are also not going to meet the standards of
6 identity. And that's the primary reason why we
7 standardize milk for cheese making.

8 Okay. Now, every cheese maker is making cheese to
9 maximize cheese yields.

10 How do we calculate cheese yields? Well, there is
11 an old formula called the Van Slyke and Price cheese yield
12 formula. This formula was developed in 1894 from work
13 that was done in New York. And this holds true up till
14 today.

15 So this formula says that for cheese yield,
16 cheddar cheese yield, you are going to retain about 93% of
17 the fat. You are going to lose a tenth of a pound of
18 casein, which is when you clot milk for cheese making,
19 casein is hydrolyzed at a specific bond, and some of that
20 casein is lost in the whey, and most of it is retained as
21 part of the curd. So the formula accounts for the loss of
22 casein in the whey.

23 Now, the formula also says that when you add salt
24 to cheese during cheese making, you retain some of the
25 salt and other solids in the milk, which is nonfat and
26 protein, like the lactose, the minerals. And that is
27 about 9% of the sum of the casein and the fat, so that's
28 where the 1.09 comes in. And then you divide by the



1 solids in the milk, so one minus the moisture composition.
2 Say you had a cheese of 39% moisture, it would be one
3 minus .39. If you have 37% moisture, it would be one
4 minus .37. Okay.

5 So this has what worked so well, but what happened
6 is Van Slyke and Price, their cheese making was done in
7 open vats. And I will show you pictures of that in a
8 minute.

9 And in the '80s cheese plants started going to --
10 to automate, and they were going for what we call enclosed
11 cheese vats for -- to improve safety, to improve yields,
12 also. Then the first set of enclosed cheese vats that
13 were introduced were called the Double O vats. Okay? And
14 I will show a picture of that in a minute.

15 And when these vats were introduced, we couldn't
16 attain the 93% fat recovery. So there was petition to
17 reduce the Van Slyke yield formula and reduce the fat
18 recovery to 90%. And that's how the whole thing started.

19 So we had the modified Van Slyke formula where it
20 was .90 times F plus C minus .1, or some people -- instead
21 of C minus .1, they'll do .78 times P because casein,
22 which is C, was not easily measurable. So they'll measure
23 protein, and since 78 to 80% of the protein in milk is
24 casein, they'll use .78P instead of C.

25 Okay. So if I may, I can just pause here and show
26 pictures of vats.

27 So -- so once Van Slyke did his work, or Van Slyke
28 and Price did their work, we have open vats, which is



1 shown here.

2 Then we went to the enclosed cheese vats. So on
3 the middle left there we have -- it looks like two Os if
4 you look at that, right? Two Os, it is called Double O
5 vats. That's what we went to, Double O vats.

6 And in the box there as -- it says that Double O
7 side vat -- from the side view, style vats on the side
8 view.

9 Then we went to horizontal cheese vats. So
10 instead of having the vertical agitation, we have
11 horizontal agitation.

12 And then the new cheese vats are -- instead of
13 having a single shaft, we have double shaft. So that's
14 been an improvement in the technology for cheese making
15 equipment, and this affects cheese making -- efficiencies
16 of cheese making.

17 Okay. So I'll go back, toggle back to...

18 So Van Slyke and Price did an excellent job to get
19 the 95 -- 93% fat recovery. We couldn't achieve it when
20 we went to the Double O vats. It was more difficult.
21 Yes, you can attain it, but you have to work hard to
22 attain that. Now that we have newer vats, we are able to
23 even go beyond that.

24 And in my research to write this paper, I sent
25 e-mails out to equipment manufacturers, and I have notes
26 up here from Tetra Pak, this -- they are saying that,
27 using their cheese vats, which is what most of the large
28 cheese plants use today, you can attain as high as 97% fat



1 recovery. This is using the twin screw cheese vats, so
2 it's horizontal ACV. I have seen that in cheese plants
3 myself, and I know that it's -- it's doable. Okay?

4 Now, if you are using the old Double O vats, yes,
5 you can achieve it, but it's a little bit more difficult
6 to do.

7 Okay. Now, cheese making and cheese yield is not
8 only about fat recovery. It's about protein also.
9 Because during milk clotting, you're curdling the milk,
10 and as you curdle the milk, it's forming a network and
11 it's trapping the fat in it. So if you have a weak curd,
12 you are going to -- that curd is going to shatter very
13 easily, and so when you -- when you stir it, you are going
14 to lose more fat. If you have a firm curd, because of the
15 strong protein network, you are able to hold more fat.

16 So it's not just about equipment, but it's about,
17 say, the ingredients that you are using in cheese making,
18 which the coagulant plays a big role.

19 So Christian Hansen, that's the leading coagulant
20 manufacturer in the world, actually has introduced enzymes
21 that allow you to increase yield based on protein content.
22 So essentially as you are trapping more protein, you are
23 also trapping more fat.

24 And this picture here shows how different
25 coagulants can actually result in higher cheese yield.
26 And there's more information in the exhibit that is
27 already included, Exhibit 8.

28 So as you use more efficient milk coagulants, you



1 are going to increase your cheese yield by creating a
2 better network, and by so doing you are also trapping more
3 fat. Okay.

4 So in my experience as a consultant, I'm aware
5 that to -- to optimize cheese yield, we need to
6 standardize milk by blending -- by introducing protein or
7 fat, from either a source where you are using UF milk, RO
8 milk, skim milk, nonfat dry milk, or cream. You need to
9 standardize to the right protein-to-fat ratio or
10 casein-to-fat ratio. And you have to control the
11 coagulants used, the curd firmness, the stirring, that's
12 where the equipment comes in. And for large commodity
13 cheese plants, you can achieve 93% or higher fat recovery,
14 if you do a good job.

15 Okay. So in conclusion, consistent milk
16 composition, which we know now through breeding programs
17 and good milk -- milk composition, and improvements in
18 equipment, and cheese making ingredients, particularly
19 coagulants, have all contributed to increased cheese
20 making efficiency and higher milk solids recovery,
21 including milk fat in cheese. Okay.

22 Therefore, in my opinion, fat recoveries of 93% in
23 the original Van Slyke and Price cheese yield equation,
24 93% is achievable. And direct observations and my direct
25 view of cheddar cheese plants are achieving these fat
26 recoveries, and even above these levels. So I would say
27 that it was done in 1894, it can be done now -- or
28 actually it is being done now.



1 And on that note I will conclude.

2 Q. Thank you, Dr. Farkye. I want to ask you some
3 more questions about what you just presented.

4 So you talked about when Van Slyke and Price
5 developed their formula. And when you and I were talking
6 last night, you told me you have a copy of this book that
7 I found last week.

8 A. That is correct.

9 Q. From whatever, 1916, by Mr. Van Slyke -- or I
10 don't know if he was Dr. Van Slyke or not. But Van Slyke,
11 he was a Ph.D.

12 A. Yes.

13 Q. He published this book in 1916, and he talked
14 about the formula you have discussed.

15 Now, you have talked about the impact of vats and
16 how that affects the butterfat recovery, so I want to go
17 through that just a little bit more with you.

18 A. Okay.

19 Q. His research, his observations were done with the
20 open vats that you showed, correct?

21 A. That is correct.

22 Q. Now, the next kind of evolution in vats, those are
23 the Double O vats you talked about?

24 A. That is correct.

25 Q. And do you recall when those types of Double O
26 vats started being manufactured?

27 A. I will say in the '80s. Early '80s.

28 Q. And so you described those vats as a vertical vat,



1 correct?

2 A. Vertical agitation.

3 Q. Okay. So when you talk about vertical agitation,
4 that's -- that means that the shaft in the vat is
5 vertically oriented?

6 A. That's correct.

7 Q. And that's what stirs the curd, correct?

8 A. That is correct.

9 Q. And in an open vat, would that be done more
10 manually, originally?

11 A. So it will cut manually, but it's also vertical
12 agitation.

13 Q. Okay. In the Double O vat?

14 A. In the open vat. So, for instance, if you look at
15 this here --

16 Q. Okay.

17 A. -- if I may.

18 Q. Yeah. Oh, you have to ask him --

19 A. That's fine. He doesn't have it on. I'm sorry.

20 Q. That's okay. There we go.

21 A. So if you look there, there is an agitator right
22 up there in the top right corner. And that's traveling
23 along the cheese. So as it's traveling, it is stirring.

24 Q. Okay.

25 A. So that's a traveling agitator, whereas in the
26 enclosed cheese vats, it is stationary, so it is more
27 rotating.

28 Q. And so am I correct that the primary benefit of



1 the vertical Double O vat was to automate the cheese
2 making process a little more?

3 A. That is correct.

4 Q. But what was found in that automation, the
5 agitation resulted in a lower butterfat retention than
6 with an open vat; is that correct?

7 A. That is correct.

8 Q. Now, after vertical vats, after Double O vats came
9 the horizontal vats that you described, correct?

10 A. That is correct.

11 Q. How are those different than the Double O vats?

12 A. So if you can see the horizontal vats, they have
13 the shafts laid horizontally, and they are rotating, and
14 they are -- it is more gentle. That's the first
15 generation. And the second generation you have twin
16 screws, so they are kind of stirring in a counterclockwise
17 manner.

18 Q. So it's the same agitation function, but the shaft
19 is oriented differently?

20 A. That's correct.

21 Q. And you describe it as a gentler action?

22 A. That is correct.

23 Q. Now, with the adoption of those horizontal vats,
24 have cheese makers realized higher butterfat retentions?

25 A. That is correct. Yes.

26 Q. If I go back to your initial description of the
27 cheese making process, this is the cutting of the curd,
28 the stirring, and the cooking, that's the process that the



1 vats have automated, correct?

2 A. Yes.

3 Q. Now, if we go back to when Dr. Van Slyke was
4 observing cheese manufacturing in the 1890s, all of those
5 processes would have been manual, would they not?

6 A. The cutting was manual, just like I did in my
7 thesis work.

8 Q. And I think when you were describing those
9 processes, you -- you indicated that you have to be
10 careful when you cut the curd because you said -- you
11 described it as it has to heal, correct?

12 A. That is correct.

13 Q. And that was to keep the protein and fat matrix
14 intact, correct?

15 A. That is correct. So you don't lose the fat.

16 Q. So if I can summarize, we went from a mostly
17 manual process where people could be very careful and
18 develop an expertise in how to stir and cut cheese, to a
19 more automated process where we lost some of that human
20 touch and precision maybe?

21 A. That is true.

22 Q. To a new iteration of vats, which improve upon, I
23 guess, the efficiencies lost through that initial
24 generation of automation?

25 A. That is correct.

26 Q. So now I want to ask you about cheese plants in
27 general. I don't want to talk about really specific
28 plants, but --



1 A. Okay.

2 Q. -- were there some significant large commodity
3 plants built after the introduction of the Double O vats?

4 A. Yes.

5 Q. Now, those plants, if they were operating at a
6 reasonable level of skill and efficiency, with those
7 Double O vats, what do you think a plant like that could
8 expect in terms of butterfat retention?

9 A. If they do a very good job, they will get the 93%,
10 but most times they will not. That's why many of the
11 plants and the newer plants went away from the Double O
12 vats.

13 Q. Now, to get 93%, would that be using what I will
14 call a standard rennet?

15 A. Yes. You can get a standard rennet, yes.

16 Q. Okay. If those plants using a Double O vat were
17 to use a more advanced modern rennet, like the one you
18 have described, would they achieve greater than 93%
19 butterfat retention?

20 A. They will achieve it based on the fabric of better
21 curd formation.

22 Q. Now, my understanding -- and I was -- like
23 Mr. Munch, I was not doing much during this time period in
24 the industry. In the '90s, let's say, was there a lot of
25 growth in large commodity cheese manufacturing in the
26 United States during that period?

27 A. Yes.

28 Q. When would you have started to see the



1 introduction of the horizontal vats that you have talked
2 about?

3 A. In the '90s.

4 Q. So does the introduction of the horizontal vats
5 kind of coincide with the more expansion within the
6 commodity cheese industry?

7 A. That is correct. That's a fair assumption.

8 Q. Now, with that first generation, single shaft,
9 horizontal vats, again, a plant of, let's say -- not a top
10 operator but an average cheese manufacturer, using an
11 average rennet, what type of butterfat retention should
12 that plant be achieving?

13 A. They should strive to get at least 93% fat.

14 Q. They are striving to achieve that, but let's say
15 that they are -- say that they are -- they are still
16 striving. What might they be realizing on a --

17 A. Somewhere between 87 and 91, maybe.

18 Q. Okay.

19 A. That's what they will be getting.

20 Q. And their equipment allows them to achieve higher,
21 though?

22 A. That's correct.

23 Q. And if they are not achieving that, is that a
24 deficiency in their perhaps training and processes?

25 A. It could be both.

26 Q. But it would be something in the control of the
27 manufacturer that they could correct?

28 A. Yes. If they are careful, they would be able to



1 control it, yes.

2 Q. So now take that plant that's striving for 93, and
3 let's say they have got the 93. And now they want to use
4 the best rennets or best coagulants they could find.

5 What do you think that would do to their butterfat
6 retention?

7 A. It will improve because of better curd formation.

8 Q. Now -- and I know you -- you listened to part of
9 the hearing, and you have been here for a bit but -- maybe
10 you have heard the testimony on some of these issues and
11 maybe not. But in the last, say, five years, maybe ten
12 years, has the industry seen quite a number of large
13 commodity cheddar cheese plants constructed and
14 commissioned?

15 A. Yes.

16 Q. If you were building a plant in that period, what
17 type of vat would you recommend they install?

18 A. The -- what we call the ACV double, ACV horizontal
19 cheese vats with the twin screw. And also install the
20 drain mat cheddar system to finish the cheese.

21 Q. Okay. So if you are installing the double shaft
22 horizontal vat system, that's the one that you described
23 as being, I think, more gentle with its action?

24 A. That's correct.

25 Q. And not top-of-the-line achievement, but
26 reasonable operation of a vat like that, what would you be
27 advising that they could expect to get in terms of
28 butterfat retention from those vats?



1 A. 93-plus.

2 Q. And if they were -- if they were firing on all
3 cylinders, so to speak, and everything was going right,
4 what might they expect to achieve?

5 A. As the Tetra Pak engineer said, they can go as
6 high as 96, 97.

7 Q. And would that go even higher if they were using
8 the best coagulants available?

9 A. Yeah. After you get to 97, it's -- I mean,
10 some -- it's like having a cut, you are going to lose some
11 blood anyway, right? So there's -- you are trying to trap
12 the fat, but you are -- since you are cutting that fat,
13 you are going to lose some of that fat.

14 Q. I know your goal here, your role today is not to
15 tell USDA what proposal they should or shouldn't adopt.

16 A. No.

17 Q. But do you have an opinion about whether the
18 majority of cheddar cheese produced in the U.S. today,
19 commodity cheddar cheese produced in the U.S. today, comes
20 from plants that can achieve a butterfat retention of 93%?

21 A. Yes. Very much so. If you look at the amount of
22 milk that is produced in the United States and the number
23 of cheese plants that make cheddar, there are probably the
24 top maybe ten would use -- would have modern cheese making
25 equipment and achieve higher.

26 Q. Achieve higher?

27 A. Yes.

28 Q. And is your conclusion based both on the



1 theoretical science as well as your observations of the
2 industry?

3 A. Yes.

4 Q. Thank you, Dr. Farkye.

5 MR. MILTNER: We would make the witness available
6 for additional examination.

7 THE COURT: Any questions for this witness aside
8 from AMS?

9 CROSS-EXAMINATION

10 BY MR. ENGLISH:

11 Q. Checking to see it is still morning. Good
12 morning, Dr. Farkye. My name is Chip English. I
13 represent the Milk Innovation Group. I think you got here
14 sometime yesterday, although I think you may have taken a
15 red eye, so I don't know how much you were able to follow
16 yesterday. But I do appreciate very much, I think
17 everyone appreciates your appearance.

18 A. Thank you.

19 Q. And the fact that you are not taking a position,
20 but you have articulated the science.

21 I actually want to start maybe at the end of what
22 you just said in response to additional questions from
23 Mr. Miltner.

24 And as I understood it, the -- he got you to say
25 it was the top ten cheese companies or cheese plants could
26 achieve this 93% butterfat, correct?

27 A. If they do a good job, yes.

28 Q. If they do a good job?



1 A. Uh-huh.

2 Q. So even within the top ten, if they didn't do a
3 good job, they might not hit 93%, correct?

4 A. I would say with modern equipment, most of them
5 would right now.

6 Q. Okay. So that modern equipment comes with a cost,
7 though, correct? I mean, Tetra Pak is in the business of
8 making money, correct?

9 A. That is correct.

10 Q. So you have talked about sort of the majority of
11 cheddar cheese. Would that mean volume as opposed to
12 plants? When you talk about the majority of cheddar
13 cheese could be produced at 93%, would that be a volume of
14 cheese as opposed to a majority of plants?

15 A. So it's both. Because if you look at California,
16 for instance, ninety- -- about -- the last data I saw from
17 CDFA, about five plants use about 95% of the milk that is
18 produced in cheese making. And I mean, it may not be
19 cheddar alone. It may be cheddar, mozzarella. And if you
20 look at the U.S. as a whole, I believe there are about 150
21 cheddar cheese plants, maybe 50 in Wisconsin and 25 in
22 Idaho and -- I mean, making large commodity cheddars.

23 So your -- to answer your question, it's both
24 volume and number.

25 Q. But there are a significant number of smaller
26 plants in other parts of the country, such as Wisconsin,
27 correct?

28 A. Yes. But the amount of milk they utilize may be



1 proportionally -- proportionately lower.

2 Q. Nonetheless, those plants do provide an outlet for
3 producers' milk, correct? If those plants didn't exist --

4 A. Yeah, they do.

5 Q. Okay. And the e-mail that you received from
6 Mr. Steffens from Tetra Pak, is that an e-mail you got?

7 A. Yes, that's an e-mail I got.

8 Q. Is the text you provided, the entire text of his
9 e-mail?

10 A. Yes.

11 Q. Okay. So nowhere in that text does he say, for
12 instance, how much the Tetra Pak YieldMaster costs, does
13 he?

14 A. No.

15 Q. Nowhere in his e-mail does he say how much the
16 Tetra Pak HCV costs, correct?

17 A. No.

18 Q. And nowhere does he say how much the current Tetra
19 Pak Double O costs, correct?

20 A. No, sir.

21 Q. And when you talked about the results, I am
22 wondering, because the e-mail, the last part of it, which
23 carries over to page 5, says, we can increase the Van
24 Slyke rFat factor in a relational way; moving from rF
25 equals 0.90 hyphen 0.91 up to 0.91 to 0.925.

26 Is that what he says?

27 A. Yeah. So what he is saying, fat retention or fat
28 recovery, that's what he's saying.



1 Q. Right. But nowhere there does he say 93%, does
2 he?

3 A. No, he doesn't say that.

4 Q. Okay. And then the next sentence says, "Much of
5 our data has been based on a very large plant where three
6 different style vats are located," correct?

7 A. That's what he says, yes.

8 Q. So his e-mail is basically limited to one very
9 large plant, correct?

10 A. I would -- I don't know what he was referring to
11 because I didn't ask him.

12 Q. And he's not here to tell us, is he?

13 A. No. But I do know from my experience that most of
14 the large plants would use the Schpering vats or Tetra
15 Scherping vats.

16 (Court Reporter clarification.)

17 BY MR. ENGLISH:

18 Q. And similar to the e-mail that you obtained from
19 Mr. Steffens, the Chr. Hansen document, which you called a
20 study, is it maybe more correct to say it's a marketing
21 piece by Chr. Hansen?

22 A. Well, I didn't -- it's -- so some of -- Chris
23 Hansen is a very reputable company, and they would -- they
24 would do the work before they print out something like
25 this. And we -- and I do know from experience that using
26 some of these cheese rennets would give you high yield
27 because I have done it.

28 Q. Does the Chr. Hansen document discuss what the



1 costs are for this marketing piece of 20 pages?

2 A. No.

3 Q. I may have misheard, but did you hear some
4 testimony from -- did you follow last week and follow some
5 of the testimony last week or just when you got here?

6 A. No, I did not follow.

7 Q. Okay. If there was a witness who said that, yeah,
8 that's what the salespeople would say, but, you know, they
9 don't necessarily believe it about the coagulants, would
10 you disagree with that witness?

11 A. I don't know what the witness said, so I cannot.

12 Q. If a witness appeared last week and testified that
13 they were still using Double O, you would have no reason
14 to disbelieve them, correct?

15 A. There are some plants using the Double Os. It's
16 been sold. Again, it's more volume, throughput,
17 efficiency. And there are some that have gotten away from
18 Double O -- the newer Double Os to go to the ACVs because
19 if you do the math of the fat recovery, it will pay for
20 itself.

21 Q. But you don't have that math here because you
22 don't have the costs, do you?

23 A. No, I don't have the math, but I have spoken to
24 cheese plants overseas who have actually expressed that
25 sentiment.

26 Q. But it could very well be that a plant, say, in
27 Wisconsin hasn't been able to make that conversion
28 because -- for reasons that go beyond your testimony, the



1 Federal Order pricing system may limit their investment
2 ability?

3 A. I have no knowledge of that.

4 Q. Now, you were here, yesterday, though, when I had
5 my conversation with Mr. Allen in the afternoon, correct?

6 A. I may have listened about it, yes.

7 Q. Okay. If he agreed with me that inevitably there
8 is some fat loss, through, say, wastewater, you would have
9 no reason to disbelieve that, correct?

10 A. So there is some fat loss in wastewater, but it's
11 very, very, very minimal, because you are going to wash
12 the vat or the line anyway, and all that is going to go to
13 waste. But the amount is very, very low. Most of the fat
14 loss occurs during whey drainage.

15 Q. But there is some fat loss?

16 A. Very low.

17 Q. But it is above zero, correct?

18 A. I don't have a number, but it's very, very, very,
19 very low.

20 Q. I understand.

21 But would you agree with me it is above zero?

22 A. It depends on how many decimal places and how
23 significant it is.

24 Q. Okay. Nonetheless, your own statement says, on
25 page 2, "Most of the fat losses during cheese making occur
26 during whey drainage"?

27 A. That's what I just said, yes.

28 Q. Okay. Now, the word "most" doesn't mean "all."



1 So are there other fat losses other than through whey
2 drainage?

3 A. Yes, manipulation of the curd can occur anywhere
4 where you are -- you are losing components.

5 Q. Okay. And going back to the Double O vats, you
6 would agree that butterfat recovery from Double O vats
7 would not be at 93%, correct?

8 A. It is achievable if you do a good job, yes.

9 Q. But achievable is not the same thing as achieved,
10 is it?

11 A. It's become semantics, sir.

12 Q. Okay. So I realize you are not here to talk about
13 Federal Order policy. But are you familiar with the
14 current Class III milk formula in Federal Orders and how
15 it accounts for fat?

16 A. No.

17 Q. Okay. If -- if I were to represent to you that my
18 understanding of the two proposals from Select, which are
19 Proposals 10 and 11, if both were adopted, that the cheese
20 yield formula would use 93% milk fat going to cheese and
21 7% of fat recovered as sweet cream for use in Grade AA
22 butter, so essentially it's 100% fat recovery, does that
23 make sense to you?

24 A. Please come again?

25 Q. Okay. If combination of the proposals submitted
26 by Select were to achieve in one part of the formula 93%
27 of the milk fat going to cheese and 7% of fat being
28 recovered as sweet cream for use in Grade AA butter, that



1 adds up to 100%, correct?

2 A. Yes.

3 Q. Okay. Does that make sense to you that it would
4 be 100%?

5 A. I don't know the values for the mass balance, but
6 93 plus 7 is 100.

7 Q. But you have already mentioned that there are some
8 losses, although you can't define them, correct?

9 A. Again, it depends on how many decimal places you
10 are going to.

11 Q. Do you know -- and if this gets beyond what you
12 are talking about that, that's fine -- but do you know how
13 whey cream is marketed?

14 A. I know about whey cream, but I'm not into
15 marketing, so I can't comment on how it's marketed.

16 Q. So would you know whether it could typically be
17 use in Grade AA butter products?

18 A. Can whey cream be used in butter? There are
19 people who use whey cream in butter making.

20 Q. But can it be used --

21 A. It is called whey cream butter.

22 Q. Yes. It's called whey cream butter.

23 Can it be used in Grade AA butter products --

24 A. I don't know the regulations there, so I cannot
25 answer that.

26 MR. ENGLISH: That's all the questions I have.

27 Thank you.

28 THE COURT: Anyone else have questions other than



1 AMS?

2 AMS.

3 CROSS-EXAMINATION

4 BY MS. TAYLOR:

5 Q. Good morning.

6 A. Good morning.

7 Q. Thank you for coming and testifying today. Just a
8 couple questions.

9 I want to turn to your statement on page 2. And
10 you have a Table 1 listing the average composition of milk
11 by different breeds of dairy cattle. I just wanted to
12 know the source of that.

13 A. That's any dairy chemistry book would have that.
14 So a good one would be Pat Fox's books.

15 Q. And these are -- so these are average
16 compositions, recent?

17 A. Yes.

18 Q. And so on your figure on the next page, what I
19 think the take-away here is you looked at All-Jersey milk,
20 and you looked at all Holstein milk?

21 A. That's correct.

22 Q. And while the fat levels in the cheeses differed,
23 as a percentage basis, the recovery was the same?

24 A. That's correct.

25 Q. And then the middle cluster is where you blended
26 the two, and that is -- and is it right that that is what
27 is more realistic of what is currently done in order to
28 standardize to meet the standard of identity?



1 A. No. So if a plant does not have milk coming from
2 two sources, that's not -- this was a study that was done
3 because at that time the sponsor was -- had both Jersey
4 and Holstein and wanted to find the optimum.

5 Q. Okay. And when was that study done?

6 A. 1983, '84.

7 Q. Okay. So on page 4 when we're talking about --
8 you're talking about cheese equipment, and I know you have
9 been asked a few questions on this. But you talk about
10 how 93% is achievable using Tetra Pak equipment.

11 My first question would be, what other types of
12 equipment are out there or how many cheese manufacturers
13 do or do not use this type of equipment?

14 A. So there are probably about -- for cheddar cheese
15 making, there are probably maybe two or three major
16 players there in equipment making, and they all have,
17 different versions. Because some of these equipments are
18 patented. Just because of the design, they may have
19 slight variations, but they do similar work.

20 Q. And you mean slight variations in the butterfat
21 recovery?

22 A. No, in the design.

23 Q. In the design.

24 So do you know anything about the butterfat
25 recovery in those?

26 A. Fairly similar.

27 Q. Okay.

28 A. And I can bet you that most, if not all, the large



1 commodity cheese plants are going for the more efficient
2 equipment.

3 Q. The newer -- the newer plants being built?

4 A. Yeah.

5 Q. Can you speak to the -- about the plants that are
6 maybe still using Double O vats, the number of plants or
7 the age of the plants or --

8 A. Very little. I mean, as a side note, I wasn't
9 using -- and it's maybe in the -- I would say in the early
10 '90s this plant had Double O vats that they had taken out,
11 was a year old. And I asked, why did you take it out?
12 The answer was, just do the math with butterfat recovery.
13 It will pay for itself. And when I did the math, within a
14 year, it will pay for itself.

15 Q. On page 5 when you talk about coagulants and the
16 use of better coagulants can create stronger protein bonds
17 and then trapping more fat. So can you talk about the
18 prevalence of industry cheese makers in using these better
19 coagulants?

20 A. Most cheese plants, I mean, use the better
21 coagulants. In the United States.

22 Q. Okay. And so when you talk about "most cheese
23 plants" use that or you use Tetra Pak equipment, can you
24 speak a little bit about how you have that knowledge?

25 A. As a consultant in the industry, as a reviewer of
26 articles, either as an expert reviewer or as an author,
27 and of course just knowing the industry.

28 Q. Is some of that going into plants to observe and



1 studying their data to see that's what they achieve?

2 A. Going to plants as a consultant.

3 Q. Right.

4 A. Uh-huh.

5 Q. On the last page, the last sentence ends, "The
6 majority of commodity cheddar cheese manufacturers," and I
7 think you clarified in response to Mr. English that
8 that's, in your opinion, both in volume in cheese and
9 number of plants. Then you say, "are achieving fat
10 recoveries at or above these levels."

11 Are these levels 90% or 93%?

12 A. 93%.

13 Q. Okay. So is it of your opinion that the current
14 modified Van Slyke formula, which assumes a 90% fat
15 recovery, is not valid anymore based on current technology
16 and ingredients available to use in cheese making?

17 A. I think the 93% is a more appropriate number.

18 Q. And there's been -- when we look at cheddar cheese
19 and we survey that for both -- for our formulas, we look
20 at both barrels and blocks.

21 So is there any difference in the process in the
22 fat recovery in producing those two products?

23 A. No. Up to the point of packaging, the processes
24 are the same.

25 Q. And generally manufacturers who make either of
26 those, they use all the same equipment?

27 A. They use the same equipment up to the time of
28 packaging. Then they -- it's diverted into the barrel or



1 block format.

2 MS. TAYLOR: I think that's it from AMS. Thank
3 you.

4 THE WITNESS: Thank you.

5 REDIRECT-EXAMINATION

6 BY MR. MILTNER:

7 Q. Dr. Farkye, just a follow-up question or two on
8 the questions you received from USDA.

9 Where you are not a consultant visiting a plant
10 but instead are reviewing someone else's papers or
11 research, would the author of that paper have visited the
12 plant and seen the data firsthand before you stepped in as
13 a reviewer?

14 A. So I have done both. I have been a consultant in
15 the plant where I have been involved in cheese making,
16 observed their data, and made my comments. So it's been
17 both.

18 Q. It's been both.

19 So your conclusions about what plants are
20 achieving, and not just what is theoretically achievable,
21 is that conclusion drawn on your own personal observations
22 or your review of the direct observations of others in the
23 industry?

24 A. It's both.

25 Q. It is both.

26 And then Mr. English asked you about the e-mail
27 from Mr. Steffens and the information from Chris Hansen.

28 Those were not the sole sources for your



1 conclusions today, were they?

2 A. Oh, no.

3 Q. There are -- there are -- I guess are they a
4 confirmatory data point in your analysis?

5 A. They are one of several.

6 Q. Okay.

7 MR. MILTNER: I don't have any other questions
8 then.

9 And, your Honor, we would ask the admission of
10 Exhibit 224 and 225.

11 THE COURT: Seeing no objections, Exhibits 224 and
12 225 are admitted into the record.

13 (Thereafter, Exhibit Numbers 224 and 225 were
14 received into evidence.)

15 MR. MILTNER: Thank you.

16 Thank you, Dr. Farkye.

17 THE WITNESS: Thank you.

18 THE COURT: Is now a good time for lunch? Let's
19 come back at 1:05.

20 (Whereupon, a luncheon break was taken.)
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1 TUESDAY, SEPTEMBER 19, 2023 - - AFTERNOON SESSION

2 THE COURT: Let's go on the record.

3 We're on the record. Off the record we discussed
4 four-originally marked as Edge exhibits that we discussed
5 on September 15th, and we were going to wait until we had
6 hard copies to move them. We marked them, but we wanted
7 to have hard copies to move them into the record. And AMS
8 I think has provided hard copies now, so we'll consider
9 these to go into the record.

10 I don't know that we need to take them one by one.
11 I'll take them as a group. We have Exhibit 205, which was
12 Edge-9; Exhibit 210, which was Edge-7; Exhibit 211, which
13 was Edge-10; and Exhibit 213, which was Edge-8.

14 Any objections?

15 Seeing none, those four stated exhibits are made a
16 part of the record.

17 (Thereafter, Exhibit Numbers 205, 210, 211,
18 and 213 were received into evidence.)

19 THE COURT: Mr. Miltner.

20 MR. MILTNER: Thank you, your Honor. We would
21 call Chris Allen to the stand.

22 THE COURT: Welcome. I guess we'll swear you in.

23 CHRIS ALLEN,

24 Being first duly sworn, was examined and
25 testified as follows:

26 THE COURT: Your witness.

27 DIRECT EXAMINATION

28 BY MR. MILTNER:



1 Q. Mr. Allen, do you have in front of you a document
2 marked in the upper right as revised Exhibit Select-9?

3 A. Yes.

4 MR. MILTNER: Your Honor, could we mark that as a
5 Hearing Exhibit for identification?

6 THE COURT: Yes, we can. Select-9 is marked for
7 identification as Exhibit 226.

8 (Thereafter, Exhibit Number 226 was marked
9 for identification.)

10 MR. MILTNER: Thank you.

11 BY MR. MILTNER:

12 Q. Mr. Allen, you have seen this document before,
13 correct?

14 A. Yes.

15 Q. And it is a written statement which summarizes
16 the -- primarily summarizes the regulatory text changes
17 for the adoption of Select's proposals, correct?

18 A. Yes.

19 Q. Now, this is a revised exhibit, it differs from
20 the one submitted in advance of your testimony, correct?

21 A. Yes.

22 Q. And we distributed that to counsel this morning,
23 as well as AMS.

24 What are the two principal -- really the two only
25 changes to the exhibit?

26 A. Well, first we found that in our initial
27 calculations of the outcomes of the changes to the
28 formula, that we had incorrectly entered the monthly



1 commodity price data. We had entered the prices as two
2 decimals, rounded to the first two decimals. If we had
3 been more thoughtful, we would have noticed that those
4 should have been entered as rounded to four decimals for
5 each month. So those five-year and ten-year periods. We
6 went back and corrected the average calculation to rounded
7 to four decimals, and I sorted those commodity prices,
8 those revised commodity prices into formulas, in the
9 original formulas, the revised formulas for each proposal,
10 and established a new outcome of those prices.

11 Q. And that revised data is reflected in the two, I
12 guess, tables on page 1 and page 2 of Hearing Exhibit 226,
13 correct?

14 A. That is correct.

15 Q. And the calculations of the effects of the
16 proposals, there were modest changes in the terms of a few
17 pennies --

18 A. Correct.

19 Q. -- that's correct?

20 Okay. How about the second change to -- to this
21 exhibit?

22 A. Again, just reviewing our process, we recognized
23 that we had failed to indicate regulatory text change
24 related to the advanced price. A portion of the
25 regulatory text addresses the butterfat price without
26 using references to the other portions that we had already
27 suggested edits for, so we added in Section 7 of
28 CFR 1000.50 paragraph (q)(3), we made an adjustment there,



1 a revision there to the regulatory text.

2 Q. And the change to the multiplication factor there,
3 it's the same -- same number as we have proposed a change
4 in 7 CFR 1000.50(1); is that correct?

5 A. Yes.

6 Q. And just so the record's clear, the changes that
7 Select has proposed in Proposals 10, 11, and 12, they
8 change yield factors for the various milk components,
9 correct?

10 A. Yes.

11 Q. And those components primarily affect the formulas
12 for Class III and IV milk, correct?

13 A. Correct.

14 Q. But butterfat, there's an advanced butterfat
15 factor that goes into the advanced pricing, correct?

16 A. Yes.

17 Q. And the other advanced factors, their changes
18 refer to CFR sections without restating the particular
19 mathematics, correct?

20 A. Yes.

21 Q. So there's no change in what Select intends to
22 accomplish with any of its proposals, correct?

23 A. Correct.

24 Q. Okay. Is there anything in this statement that
25 you feel the need to read into the record?

26 A. I do not. I mean, we have covered the key points
27 of the statement.

28 Q. Are there anything else that you would like to



1 address with respect to this exhibit?

2 A. No, I don't -- I don't believe so.

3 MR. MILTNER: Okay. We would make Mr. Allen
4 available for additional questioning, your Honor.

5 THE COURT: Questions for this witness? Other
6 than AMS?

7 Looks like you are up AMS if you are ready -- or
8 even if you aren't.

9 MS. TAYLOR: Lucky for us, we are.

10 CROSS-EXAMINATION

11 BY MS. TAYLOR:

12 Q. I don't think we -- I have -- we have one
13 question, as you gave us a lot of food for thought to go
14 back last night and think about on the buttermilk piece.

15 So since you are back up here, I want to get your
16 thoughts on from a policy perspective, why does Select
17 feel it's important to account for buttermilk powder in
18 the yield formula as opposed to other, including other
19 possible products? Like why are we focusing just on
20 buttermilk powder I guess is the question?

21 A. I believe it's just because that's how the initial
22 price formula was established, with that focus on
23 buttermilk powder, and we just believe that those
24 underlying assumptions were not established properly.

25 Q. Okay.

26 MS. TAYLOR: Okay. Okay. That's it.

27 THE WITNESS: Thank you.

28 ///



1 REDIRECT EXAMINATION

2 BY MR. MILTNER:

3 Q. Since AMS asked the question, let me add a little
4 bit -- or ask you a few more about that.5 When -- when a producer sells milk to a Class III
6 manufacturing plant, to your knowledge, all of the
7 components that are delivered are priced in one product or
8 another, aren't they?

9 A. Yes.

10 Q. And if you deliver milk to a Class IV plant that
11 produces butter and nonfat dry milk, are all of the
12 components delivered to that plant priced?

13 A. Yes.

14 Q. Even the components that end up in buttermilk
15 powder?

16 A. Yes.

17 Q. Correct? Like now they are?

18 A. Can you please restate your question?

19 Q. Sure. Sure.

20 Under the current price formulas, milk delivered
21 that a Class IV plant --

22 A. Yes.

23 Q. -- solids that end up in buttermilk powder --

24 A. Right.

25 Q. -- do producers get paid for it?

26 A. Assume that the value is negligible.

27 Q. Okay. But those plants are indeed selling
28 buttermilk powder in many cases, correct?

1 A. They are.

2 Q. Okay. Sorry my questions weren't as clear as they
3 probably should have been.

4 A. I understood your question to be how the producer
5 was paid on the components of the milk received by the
6 plant. That's why I wanted you to restate it. So I'm
7 sorry about that.

8 Q. No, I'm glad you -- I'm glad you asked me to
9 clarify.

10 MR. MILTNER: I don't have any other questions,
11 and so we would move admission of Exhibit 226.

12 THE COURT: Okay. Seeing no objections,
13 Exhibit 226 is admitted into the record.

14 (Thereafter, Exhibit Number 226 was received
15 into evidence.)

16 MR. MILTNER: Thank you.

17 THE COURT: Thank you, Mr. Allen.

18 MR. NIELSEN: Good afternoon. Eric Nielsen,
19 counsel for Leprino Foods Company.

20 THE COURT: Okay. I need to swear in the witness.
21 Please raise your right hand.

22 ALISON KREBS,
23 Being first duly sworn, was examined and
24 testified as follows:

25 THE COURT: Your witness.

26 MR. NIELSEN: Thank you, your Honor.

27 I have just circulated a document marked
28 IDFA Exhibit 43. I'd like to have that document marked



1 Exhibit 227 for identification purposes.

2 THE COURT: Yes. That exhibit is so marked.

3 (Thereafter, Exhibit Number 227 was marked
4 for identification.)

5 MR. NIELSEN: Thank you, your Honor.

6 DIRECT EXAMINATION

7 BY MR. NIELSEN:

8 Q. Please state your name for the record.

9 A. Alison Krebs.

10 Q. Ms. Krebs, you have previously testified in this
11 hearing, on September 5th and September 14th, correct?

12 A. Yes.

13 Q. And has anything changed materially in your
14 professional or educational background that you provided
15 in previous testimony?

16 A. No.

17 Q. Okay. Ms. Krebs, the document in front of you
18 marked Exhibit 227 for identification purposes, is that a
19 true and accurate representation of the testimony you
20 intend to present today?

21 A. Yes.

22 Q. Great. Please proceed with your testimony.

23 A. Thank you.

24 I'm Alison Krebs, director of dairy and trade
25 policy, for Leprino Foods Company (Leprino), headquartered
26 in Denver, Colorado, as I have previously provided my full
27 introduction in prior testimony during this hearing. That
28 information has already been entered into the record, so I



1 will not repeat it here. In this tranche of testimony I
2 will address Proposals 10 through 12.

3 Opposition to Proposals 10, 11, and 12, yield
4 factor adjustments.

5 Leprino Foods opposes the three proposals from
6 Select Milk: Proposal 10, to update butterfat recovery to
7 93%; Proposal 11, to update specified yield factors to
8 reflect actual farm-to-plant shrink; and Proposal 12, to
9 update the nonfat solids factor from 0.99 to 1.03.

10 Leprino's opposition to these proposals rests
11 primarily on the fact that a more comprehensive review of
12 the yield assumptions and the losses throughout the
13 balance of the manufacturing process must be completed in
14 conjunction with any changes.

15 The Van Slyke yield formulas (which form the basis
16 of the current cheddar yield factors) and the Select Milk
17 proposal are premised on components in a vat. That yield
18 formula does not address the other losses that occur
19 throughout the production process.

20 While we do not dispute that some cheddar plants
21 achieve the 93% fat retention that is proposed, this was
22 also the case at the time the current factors were
23 established. The question is whether the vats that
24 facilitate this higher fat capture have been fully
25 implemented and whether the proposed capture rate is
26 achieved across the broader industry. The broad industry
27 data needed to make such updates is not currently
28 available.



1 Even more importantly, Select Milk does not
2 address the fact that the current formula assumes that all
3 fat not captured in finished cheddar is processed into
4 Grade AA butter. This assumption neither recognizes
5 in-plant milk component losses nor that butter
6 manufactured from whey cream is not legal under standards
7 for Grade AA butter.

8 In summary, these proposals essentially
9 "cherry-pick" yield factors within the formula. If some
10 of the yield factors are to be evaluated, then all yield
11 factors should be considered.

12 Finally, if this hand-picked group of factors is
13 updated without broad, publicly available data, it would
14 directly conflict with the logic USDA provided in the
15 following quote from the 2013 Final Decision regarding the
16 valuation of whey cream (p. 9274), quote: "While there is
17 record evidence from some manufacturers as to their
18 individual saleable volumes and values of whey cream, that
19 limited data does not provide for a reasonably complete
20 assessment of the national market for whey cream and its
21 various competing uses. Accordingly, Proposals 9 and 10
22 are not proposed to be adopted."

23 If, after a thorough vetting of all yield
24 assumptions in the Class III formula in a future
25 rulemaking proceeding record evidence supports the
26 proposed increases in fat retention to 93%, Leprino Foods
27 would not oppose that the butterfat recovery factor be
28 moved to 93%. However, that change must be accompanied by



1 a broader vetting of data and recognition of in-plant
2 losses, along with proper valuation of whey cream rather
3 than following Select Milk's proposals that cherry-picks
4 factors to update.

5 If Congress grants USDA the authority to conduct
6 regular, mandatory cost of processing studies, yield data
7 (including butterfat recovery) could become part of this
8 process as well. When that study data is available, the
9 industry would then have broad, publicly available data
10 from which to update these factors.

11 There is an important caveat for cheese if
12 mandatory studies are used to standardize yield factors.
13 Vat component data needs to be detailed in order to
14 accurately identify yield drivers, including from
15 fortification ingredients, rather than assuming that the
16 vat components mirror those of the incoming raw milk.
17 Fortification is the process of including other, more
18 concentrated milk products such as nonfat dry milk,
19 condensed skim, or ultra-filtered milk in the cheese vat
20 along with milk. Fortifying the cheese make process with
21 these products enables cheese makers to improve
22 productivity and plant utilization, manage raw ingredient
23 inventories, and manage input economics based on market
24 price relationships.

25 If sufficiently detailed vat component and yield
26 information is captured as part of a mandatory industry
27 survey for the purpose of updating these factors in milk
28 pricing formulas, Leprino Foods would be open to



1 considering use of such mandatory study data to update
2 relevant formula factors going forward. At a minimum,
3 such data, if accurately collected, could validate both
4 the yields and the losses that are inherent to
5 manufacturing cheese and its related proposals.

6 Specific to Proposal 11, the proposal to eliminate
7 the allowance for farm-to-plant shrink, many of the same
8 principles noted immediately prior also apply here. The
9 key difference being that instead of yields, we're
10 considering the difference between the components and
11 volume that are measured at the farm bulk tank versus what
12 is delivered to the manufacturer.

13 The starting point of the Van Slyke yield formula
14 is the dairy components in a cheese vat at the start of
15 cheese making. However, milk priced under Federal Milk
16 Marketing Orders is sampled for components and measured
17 for volume at the farm. Elimination of the allowance for
18 the farm-to-plant shrink denies the reality that not all
19 volume or components measured at the farm make it into
20 cheese vats. Losses occur prior to delivery to the
21 manufacturer's milk silos, in addition to within the
22 production process.

23 We applaud that Select Milk Producers has limited
24 their own farm-to-plant volume losses. A simple
25 calculation of average farm size using the data on their
26 website suggests that their members deliver on average
27 231,898 pounds and assemblers are shipping multiple full
28 truckloads from single locations daily. This contributes



1 to significantly lower losses than the industry norm.

2 Additionally, many Select Milk members scale their
3 milk, weighing the trucks before and after loading, and
4 eliminating the measurement of milk that is lost in the
5 transfer process between the milk bulk tank (or silo) and
6 the truck.

7 While Select Milk's performance in this regard is
8 laudable and aspirational, it is not reflective of the
9 broader dairy industry. The average farm size in most
10 milk sheds is significantly smaller than that of the
11 Select Milk's dairies. The 2017 Census of Agriculture
12 noted that just 8.8% of farms produced at least 39,500
13 pounds of milk per day. Trucks hauling milk from multiple
14 farms per load continue to suffer the same losses that
15 existed at the time the farm-to-plant loss assumptions in
16 the formula were first established.

17 Milk volume and fat loss may differ significantly
18 between the largest farms and smaller operations. For
19 much of the equipment that is used even today, a hose full
20 of milk is still lost on every farm between the farm's
21 bulk tank and the truck. For cheese makers buying milk
22 from smaller farms where a load includes multiple stops,
23 this volume loss remains significant.

24 Some milk sheds are solely comprised of small
25 farms, and those losses are consistent. Others have more
26 diversity in size. If the current volume allowance is
27 removed, this would incentivize cheese makers to buy from
28 larger farms or penalize farms that fail to provide a full



1 load of milk. Creating this motivation would be
2 detrimental to the smaller farms across our rural
3 communities.

4 The characteristic of fat clinging to the inside
5 of stainless is no different today for most farms than
6 when the farm-to-plant loss was first acknowledged in the
7 formula. Many milk sheds are still dominated by smaller
8 farms where the fat that remains on the inside walls of
9 the farm bulk tank is meaningful relative to the volume of
10 milk. Flushing farm bulk tanks with water is considered
11 adulteration and is therefore illegal, so the fat clinging
12 to the inside of the bulk tank remains at the farm.

13 Similar to the volume loss differences across farm
14 sizes, Select Milk can be considered an anomaly with
15 regard to fat losses. Many of these large dairies sample
16 each tanker for components directly from the tanker
17 immediately after loading since the tanker is either being
18 direct-filled or may represent a portion of the volume of
19 a milk silo.

20 Consequently, one would expect lower differences
21 in fat tests than typically occur when components are
22 sampled in the bulk tank and fat is left clinging to the
23 interior surface of the tank, as is the case across most
24 farms in the US.

25 There is no evidence that volume and fat losses do
26 not occur between the farms and plants. While milk sheds
27 dominated by large dairies shipping full truckloads of
28 milk tend to have less significant losses than their



1 smaller counterparts, those reduced losses are not
2 universal across all milk sheds or orders.

3 The evidence clearly does not support adoption of
4 Proposal 11; volume and fat loss still exist across the
5 industry, even at today's most efficient and innovative
6 plants. It is important that the farm-to-plant loss
7 assumptions embedded in the cheddar yield calculation
8 continue to recognize these losses to maintain orderly
9 marketing.

10 Leprino also opposes Proposal 12 because it does
11 not reflect the realities of manufacturing. Similar to
12 the cheddar yield factor, however, it is based upon a
13 theoretical yield approach that assumes a perfect system
14 with no losses before or after the conversion of solids
15 non-fat ("SNF") into nonfat dry milk. In-plant losses
16 exist not just with average, but with even the best
17 manufacturing practices.

18 For example, it is well known that cream includes
19 some SNF in addition to butterfat and water. Therefore,
20 one cannot assume all SNF is captured in nonfat dry milk.
21 Since cream is sold on fat value, there is no direct value
22 assigned to the skim solids in cream. Therefore, milk
23 could be overpriced relative to its value leaving the
24 market ripe for disorderly marketing. This was
25 well-stated in the February 7th, 2013 Final Decision (p.
26 9273): "It is important that the product-price formulas
27 reflect current plant conditions, not plant conditions
28 that may be possible but not reflective of general



1 industry wide conditions."

2 For these reasons, Leprino Foods opposes Proposals
3 10, 11 and 12.

4 Q. Thank you, Ms. Krebs. One follow-up question.
5 Why is cherry-picking yield factors a risk from a policy
6 perspective?

7 A. Yep. Thank you.

8 I think -- yeah, I'm certainly not a deep expert
9 on cheese manufacturing. My expertise is more in the
10 realm of policy. And I think the aspect that we're
11 looking at here is if you are only adjusting yield factors
12 that potentially increase the price of milk, and you are
13 not looking at, for example, whey cream and that pricing,
14 you could get into a situation where you are
15 unintentionally adjusting things just in one direction,
16 and that may not be where the marketplace is right now.

17 And so, you know, one analogy that I come up with
18 is folks are familiar with the Far Side cartoon where you
19 have got the guy is rowing the Viking boat. And on one of
20 the boat you have these great, big, burly, strong guys,
21 and on the other side of the boat you kind of had these
22 skinny, scrawny guys. And one guy says to the other, "You
23 ever feel like we're rowing in circles?"

24 And so it really comes down to, do we have that
25 sense of balance within the industry in the formulas. And
26 if we just look at those factors that could increase that
27 price of milk, are we in a situation where we could risk
28 having some more disorderly marketing.



1 A. Likewise.

2 Q. Just to understand, you're -- what you are -- you
3 are saying is that if you are going to adjust the yields
4 in the formulas, you have to have a mandatory audited
5 survey to -- to get the best data in order to do that
6 across the board?

7 A. That's not quite what I said. I think with yield
8 factors, we haven't had a way to get representative data
9 across the industry. For other proposals, such as
10 Make Allowances, we do have a history of generally
11 accepted studies that have been produced that provide us
12 with evidence and data.

13 Q. Is it easier to measure yields directly than costs
14 for across the whole plant?

15 A. You know, I'm not an expert for plants, so I can't
16 answer that.

17 DR. CRYAN: Okay. Thank you.

18 THE WITNESS: Uh-huh.

19 CROSS-EXAMINATION

20 BY MR. MILTNER:

21 Q. Good afternoon, Ms. Krebs.

22 A. Good afternoon.

23 Q. Ryan Miltner representing Select Milk Producers.

24 So if we oversimplified the whole end product
25 pricing schema, we'd start with a surveyed price of a
26 commodity, we subtract the cost of manufacturing that
27 commodity, and we'd multiply that times a yield factor,
28 and we get some value, correct?



1 A. Correct.

2 Q. And in this hearing, you would agree IDFA has one
3 of the proposals to change the allowance, the
4 Make Allowance part of that formula, correct?

5 A. Uh-huh. Yes.

6 Q. And there are other proposals that would change
7 what prices, what surveyed commodities we'd plug into that
8 formula, correct?

9 A. Yes.

10 Q. Okay. And yet I think your statement says that we
11 should not look at any individual aspect of the formula,
12 we should look at it in total.

13 Did I get that correct?

14 A. I think that's a matter of nuance. I -- I wasn't
15 intending to say that you can't look at aspects of the
16 formula.

17 Q. You -- IDFA thinks we should look at the
18 allowances, correct?

19 A. Yes.

20 Q. IDFA does not think we should look at the yields,
21 though, correct?

22 A. That's a concern that -- and I'm here representing
23 Leprino Foods Company. But, yeah, we -- we have a concern
24 that you just don't have the data that's needed to make a
25 good judgment at this time.

26 Q. So Leprino believes we should look at the
27 allowances, though?

28 A. Yes.



1 Q. But Leprino's position is that we should not at
2 this time look at the yield factors, correct?

3 A. Correct. It's just limitations on data.

4 Q. Okay. Let's start looking at your statement
5 because I have a few questions at different parts of it.

6 A. Okay.

7 Q. On the first page, third paragraph, in the middle
8 of the paragraph, you state, "While we do not dispute that
9 some cheddar plants achieve a 93% fat retention that is
10 proposed, this was also the case at the time the current
11 factors were established."

12 Do you recall USDA's comments on a higher
13 butterfat retention at the time of that decision?

14 A. No, I do not.

15 Q. If the comments were something along the lines of,
16 that might be achievable, but there's no evidence that
17 it's broadly achieved, would that surprise you?

18 A. No, that would not.

19 Q. And so if that number were now broadly achieved,
20 would that change Leprino's position on whether a 93% fat
21 retention is appropriate to incorporate in the formulas?

22 A. I think if we had that data that demonstrated
23 that, that that would certainly be worth looking at.

24 Q. Okay. And ultimately the Department's decision to
25 determine whether there's sufficient data to change that,
26 correct?

27 A. Yes.

28 Q. On page 2, at the first full paragraph, you refer



1 to Congressional grants of authority to conduct mandatory
2 cost of processing studies, and you note that yield data,
3 which includes butterfat recovery, "could become part of
4 this process as well."

5 I don't want to belabor the discussion we have had
6 at the hearing about how long that process might take
7 and -- and whether Congress would actually pass something,
8 but do you know if inclusion of yields is currently in the
9 proposed legislative language being discussed?

10 A. My understanding is that, yes, it is.

11 Q. Okay. Further on page 2 you state that "the 2017
12 Census of Agriculture noted that just 8.8% of farms
13 produced at least 39,500 pounds of milk per day."

14 Did you calculate at all the volume of milk
15 production that comes off of farms that can produce at
16 least 39,500 pounds of milk per day?

17 A. I did not calculate the volume.

18 Q. It's -- it's a super majority of the volume of
19 milk produced, though, isn't it?

20 A. I wouldn't doubt that at all.

21 Q. And so for Leprino's plants, a super majority of
22 the milk you receive comes on tankers that have
23 single-farm deliveries or single-farm pickups, correct?

24 A. For some of our plants, yes. I would say for
25 three of our plants, one in particular, that that
26 certainly is not the case. And so I think it varies from
27 milk shed to milk shed.

28 Q. Do you have the data for Leprino as a system or as



1 a total company?

2 A. Not with me, no.

3 Q. Would that have been useful to provide in your
4 statement, do you think?

5 A. It could have been. I -- I don't know if we
6 directly have access to that since we purchase the vast
7 majority of our milk through cooperatives or other
8 handlers.

9 Q. On page 3, in the third full paragraph, the last
10 sentence, "It is important that the farm-to-plant loss
11 assumptions embedded in the cheddar yield calculation
12 continue to recognize these losses to maintain orderly
13 marketing."

14 Are your comments limited to the cheddar yield
15 calculation?

16 A. In that particular case, it's addressing the
17 Proposal 11. Is that your question or --

18 Q. I'm curious if your criticism of Proposal 11 is
19 limited to the cheddar yield portion of that.

20 A. It was intended to address the -- well, I think
21 the risk that you have across all the proposals is if you
22 are raising milk price to a level above a market-clearing
23 level, regardless of what the proposal -- or calculation
24 is, then you have some risk of disorderly market. But
25 this particular statement was primarily aimed at the
26 farm-to-plant shrink proposal.

27 Q. Okay. Thank you.

28 Your next paragraph, you -- you are discussing



1 Proposal 12, and you state that the proposal is based on
2 "a theoretical yield approach that assumes a perfect
3 system with no losses."

4 Can you expand on that what you mean by that?

5 A. My understanding of that portion of the formula is
6 that it basically assumes that there's no losses, that
7 your mass balance is -- your milk you take in, you're
8 paying for in the products that are produced.

9 Q. Do you believe that the current Class IV formula
10 makes any payment to producers for the solids that end up
11 in buttermilk or buttermilk powder?

12 A. I don't know that I have the expertise to answer
13 that question.

14 Q. You further state in that same paragraph that
15 "since cream is sold on fat value, there is no direct
16 value assigned to the skim solids in cream."

17 Explain what you mean by that sentence, please.

18 A. Yeah. We do sell cream as a company, and we are
19 paid on a multiple of the butterfat price. And it doesn't
20 take into account any solids that are part of that cream
21 beyond just the fat.

22 Q. So do you track the cream multiples yourself?

23 A. I do not myself.

24 Q. Are you generally aware of what the cream multiple
25 range is in a typical year?

26 A. I have some idea of that, but I wouldn't want to
27 quote you a number because I'm sure I would be off.

28 Q. Have you -- during the past, say, six months have



1 you seen cream multiples, you know, reaching 140 or
2 higher?

3 A. I honestly don't know, and I know that they can
4 vary quite a bit, depending on regions.

5 Q. So when you say a cream multiple, that means that
6 the cream is priced off a multiple of a butter price --

7 A. Right.

8 Q. -- whether it is a CME price or an NDPSR price,
9 correct?

10 A. Correct. Yes.

11 Q. And so the sale of that cream, you take that
12 butter price, and you multiply it by some factor, and
13 that's the sales price, correct?

14 A. Yes.

15 Q. So if a buyer of that cream is utilizing all of
16 its components, cream and other solids, that multiple
17 captures the value of the whole tanker, correct?

18 A. It's priced off of fat though, so...

19 Q. But they are buying a tanker, correct? They are
20 buying a tanker load --

21 A. Yes.

22 Q. -- or a tote of cream, correct?

23 A. Yes. They are.

24 Q. And the purchasers understand that they are not
25 buying a tanker full of butterfat, they are buying 36%
26 butterfat with some water and some other stuff in it,
27 correct?

28 A. I assume they have some knowledge of that, but the



1 pricing is always off of the fat level -- or off of the
2 fat price.

3 Q. Does Leprino intend to introduce any data on its
4 own losses from your farms to your plants?

5 A. We don't have a lot of data available on that.
6 But, no, we are not planning to introduce that.

7 Q. Were you here when Mr. Allen delivered his
8 testimony on Proposal 11?

9 A. Yes.

10 Q. Do you believe he told the truth?

11 A. Yes.

12 Q. So when he testified that Select's proposals were
13 not aimed at increasing prices but getting the formulas
14 more precise, do you believe him?

15 A. I don't have any reason not to.

16 Q. And when he said that Select's philosophy is to
17 help make the formulas more precise so that producers
18 receive what Select perceives as the fair value for the
19 milk that they produce, you don't believe he was
20 misrepresenting his beliefs or that of Select, do you?

21 A. I don't believe he is. However, I think it comes
22 down -- potentially comes down to Select Milk and their
23 producers as opposed to the entire industry.

24 Q. And I don't -- I'm not trying to be theatrical.

25 A. Yep.

26 Q. But where you suggest that the proposals were
27 cherry-picked, do you believe that the proposals Select
28 submitted were specifically limited or targeted to those



1 that would raise prices versus perhaps lower prices?

2 A. I don't know that it was intentional, but those
3 are the proposals that came forward. And I think that
4 it's -- regardless of how they are affecting milk prices,
5 we just need to be very careful that we don't end up with
6 distortions in the marketplace.

7 Q. Now, either you or others -- and I think you --
8 have raised the issue of the value of whey cream and how
9 that's valued. IDFA and Agri-Mark proposed the last time
10 we did this to reevaluate cream.

11 Are you familiar at least that that occurred?

12 A. Yes, I am.

13 Q. Did -- and I may have asked you this before when
14 you were on the stand -- and if I did, I hope your answer
15 is the same, and I actually hope more I'm not repeating
16 myself -- did Leprino consider submitting a proposal on
17 the value of whey cream to this proceeding?

18 A. We had some consideration around it. And, no, you
19 didn't ask me this question before. But we -- we had some
20 consideration around it. But then after re-reading the
21 prior decision, the decision basically said there's no
22 publicly available data on whey cream pricing, and so
23 therefore, that would not be adopted. And we looked at
24 what data is available today, and there still is no
25 publicly available data on price of whey cream. And so we
26 figured we would hit the exact same roadblock again, so
27 why put the effort into it. I think there may be an
28 opportunity for going forward, is that something that USDA



1 could get added to Dairy Market News to try and get a
2 dataset established so that that can be revisited in a
3 future hearing.

4 Q. If Select looked at the same decisions on issues
5 like butterfat recovery, farm-to-plant shrink, and nonfat
6 yield, and came to a different conclusion that, perhaps,
7 there was sufficient rationale for USDA to reconsider its
8 decisions, you wouldn't consider that cherry-picking would
9 you?

10 A. I think if there is sufficient broad data to
11 support that, that that could be balanced. It's just a
12 matter of looking across all of the different factors of
13 the formula.

14 Q. When it comes -- thank you. I appreciate that.
15 When it comes to the issue of the yields and the
16 formulas, do Leprino and Select at least agree that the
17 yields should be as accurate as they could be?

18 A. I believe all of the formulas would be best served
19 for the industry if it were accurate. It's just a matter
20 of, do we have good data, broad enough data to represent
21 that.

22 Q. So a disagreement on that issue of yields really
23 comes down to perhaps a policy decision as well as a data
24 quality decision?

25 A. Yeah, to me it's the -- do you have the breadth of
26 data to make a policy decision that is going to ensure
27 that we have the market-clearing price for milk.

28 MR. MILTNER: Thank you.



1 THE WITNESS: You're welcome.

2 THE COURT: Additional questions for this witness?

3 Other than AMS I mean?

4 AMS, you are up.

5 CROSS-EXAMINATION

6 BY MS. TAYLOR:

7 Q. Good afternoon.

8 A. Hey, good afternoon.

9 Q. Just a few questions. On the first page when you
10 talk, you want a "more comprehensive review," I think
11 Mr. Cryan -- Dr. Cryan might have covered this, and I
12 missed the answer.

13 Can you elaborate -- is that the mandatory survey
14 that has been mentioned here many times?

15 A. Yeah, mandatory survey. Yeah, we do have -- for
16 Make Allowances, you do have some other sources of data
17 and information that are relatively broad across the
18 industry. Unfortunately, we don't have that breadth of
19 data available for the factors that are part of these
20 proposals.

21 Q. Okay. When it comes to your discussion on page 1
22 about how ninety -- excuse me -- 93% fat retention is --
23 was achievable back in 2000.

24 But I think your statement is, generally, until we
25 have data to prove that out, we should keep the 90%
26 factor; is that correct?

27 A. Or whatever factor we can show is achievable on a
28 broad basis at this point.



1 Q. And achievable is different -- you mean achievable
2 or is being achieved?

3 A. Broadly being achieved.

4 Q. Okay. And do you have any data to talk about what
5 is being achieved currently?

6 A. Unfortunately I do not.

7 Q. And just to make clear for the record, I'm -- is
8 it correct that mozzarella fat retention would not be the
9 same as cheddar fat retention?

10 A. That's my understanding, but I'm not an expert in
11 that area.

12 Q. You're more of an expert than I am in that area.
13 I was wondering on the last page, page 3, that
14 bottom paragraph that talks about your opposition to
15 Proposal 3. I don't think we're following kind of the --
16 all of the logic that you have in that. So if you could
17 just try to summarize your opposition to that proposal for
18 us.

19 And I state that because, as I'm understanding
20 that proposal, is to account for buttermilk powder in the
21 nonfat dry milk yield, but yet I don't see that particular
22 point.

23 A. Yeah. You know, quite frankly, I'm not an expert
24 in the buttermilk powder realm of things. I think it's
25 really more about what I'm intending to say is sort of in
26 that -- again, that mass balance view of the world, there
27 historically is some demonstration that there are in-plant
28 losses or losses throughout the processing -- processing



1 process. And so you have got milk going in, you have got
2 product coming out, and those don't necessarily match
3 perfectly. So if we can get a better understanding of how
4 those pieces fit together, then I think we would be better
5 informed to make those decisions from a policy
6 perspective.

7 Q. Okay. I'll ask another kind of question on that
8 realm.

9 Why would you think it's appropriate to continue
10 the policy that in-plant losses are accounted for in the
11 formulas and by extension, then, are accounted for by the
12 price that the farmer receives?

13 A. Could you ask that again, please?

14 Q. Sure. So the farm-to-plant losses are intended to
15 realize that all the milk from the farm doesn't
16 necessarily make it to the manufacturer. It gets lost in
17 that. And we can debate whether that happens now or what
18 the right percentage is, but theoretically that's what it
19 represents.

20 A. Sure.

21 Q. And in-plant losses represent the losses in the
22 manufacturing process.

23 A. Uh-huh.

24 Q. Those losses are not in the control of the farmer.

25 A. Correct.

26 Q. So my question is, why is it appropriate -- or
27 your opinion on the appropriateness of continuing
28 accounting for those losses in the formulas that do impact



1 what the farmer gets paid, even though they don't actually
2 have any control over those in-plant losses?

3 A. Okay. If I understand you correctly --

4 Q. Uh-huh.

5 A. -- you're -- on the in-plant losses, it may not be
6 something that over which the farmer has direct control,
7 but it's a reality of the industry. And it's a cost of
8 doing business and a reality that we experience as
9 processors. So I think, again, that's valuable
10 information for the industry to understand as we look at
11 how we value products, how we value and go through the
12 manufacturing or formula process because it's part of our
13 system.

14 Q. Yeah. That answers it.

15 A. Am I close?

16 Q. So this question always pops in my mind when I
17 think about things, and you are just the lucky person on
18 the stand to be here when it popped in my mind today. But
19 I always think to myself kind of why is that not accounted
20 for on the price end from the processor and instead is
21 accounted for on the back end to the farmer?

22 A. Well, for -- I mean, the farm-to-plant losses,
23 yes.

24 Q. I -- yeah, I'm not talking about that.

25 A. Okay. I don't know that I have anything more to
26 offer.

27 Q. Another conversation for when we can talk about it
28 when this hearing never gets done.



1 A. There you go.

2 MS. TAYLOR: I think that's it. Thank you.

3 THE WITNESS: Sure.

4 THE COURT: Anyone else?

5 Okay, Mr. Rosenbaum.

6 CROSS-EXAMINATION

7 BY MR. ROSENBAUM:

8 Q. Steve Rosenbaum, International Dairy Foods
9 Association.

10 Is it fair to say the Federal Order system is
11 predicated on the notion that processors should pay for
12 milk based upon what money they can derive from selling
13 the products that they milk -- make with that milk,
14 correct?

15 A. Yes.

16 Q. And if, in fact, there's routinely a loss of milk
17 in the processing itself, obviously it doesn't result in
18 product that can then be sold, correct?

19 A. Yes, that's correct.

20 Q. And does the present formula, when it comes to
21 in-plant losses, essentially assume that, in fact, you
22 have been able to turn 100% of the milk that you received
23 into a useful, saleable product?

24 A. Yes.

25 Q. Is that -- is that -- and does that appear to be
26 an inaccurate assumption to the extent that, in fact,
27 there are inherent losses of milk during the processing
28 itself?



1 A. Yes.

2 MR. ROSENBAUM: That's all I have.

3 THE COURT: Is that it for cross?

4 MR. NIELSEN: Thank you, Ms. Krebs.

5 Your Honor, at this time I would move to admit
6 Exhibit 227 into the record.

7 THE COURT: Objections?

8 Seeing none, Exhibit 227 is made a part of this
9 hearing record.

10 (Thereafter, Exhibit Number 227 was received
11 into evidence.)

12 THE COURT: Thank you, Ms. Krebs.

13 I'll swear you in while we have a minute. Please
14 raise your right hand.

15 MIKE BROWN,

16 Being first duly sworn, was examined and
17 testified as follows:

18 DIRECT EXAMINATION

19 BY MR. ROSENBAUM:

20 Q. Good afternoon, Mr. Brown. Good to see you again.
21 I have placed before you a document that's been marked as
22 IDFA Exhibit 44.

23 Is this your testimony regarding Proposals 10, 11,
24 and 12?

25 A. Yes, it is.

26 MR. ROSENBAUM: Your Honor, I would ask that this
27 be marked as Hearing Exhibit 228.

28 THE COURT: Yes. So marked.



1 (Thereafter, Exhibit Number 228 was marked
2 for identification.)

3 BY MR. ROSENBAUM:

4 Q. Mr. Brown, could you please read the testimony?

5 A. Yes.

6 This testimony is submitted on behalf of the
7 International Dairy Foods Association, or IDFA, in
8 opposition to Select Milk Producers, Inc., Proposals 10
9 through 12.

10 Q. Mr. Brown, I think you can skip your discussion --

11 A. Okay.

12 Q. -- about who IDFA is and who you are. You have
13 testified several times.

14 A. Yeah. There may be one new person, though, you
15 never know.

16 Q. Sure.

17 A. Summary of IDFA's objections to Proposals 10, 11,
18 and 12.

19 IDFA opposes Proposals 10 through 12. These
20 proposals seek to raise the butterfat recovery in the
21 Class III formula, eliminate farm-to-plant shrink, and
22 change the nonfat solids factor. While Select Milk
23 Producers has supplied some internal data in support of
24 these proposals, USDA does not have the benefit of any
25 broader industry or USDA studies relevant to the
26 consideration of these proposals.

27 When examined, it becomes clear that the proposals
28 would require pool handlers to pay for butterfat that



1 cannot be uniformly recovered or valued at the Grade AA
2 price, pay for milk that may not actually be received in
3 the cheese vat for manufacture, and for nonfat solids
4 presumes a theoretical, rather than a real world system,
5 where there are no losses before or after the conversion
6 of solids nonfat into nonfat dry milk.

7 Further, the proposals choose to update only
8 factors that are revenue enhancing and ignore others, like
9 the current overstated whey cream valuation in cheese
10 making.

11 Select estimates that the added revenue from these
12 changes totals \$0.12 to \$0.13 per hundredweight to the
13 Class III price, and \$0.41 to \$0.42 per hundredweight to
14 the Class IV price.

15 But yield factors should not be addressed
16 piecemeal, but rather in a more holistic fashion,
17 examining all factors that impact product yields,
18 including factors not discussed in the proposals that
19 counterbalance Select's chosen factors for evaluation.
20 The proposals should be denied.

21 How Proposals 10, 11, and 12 would operate.

22 A: Proposal 10 would increase butterfat recovery
23 in the Class III formula to 93%. Proposal 10 would
24 increase the butterfat recovery in the Class III formula
25 to 93%, which results in a corresponding increase in the
26 butterfat yield in cheese to 1.624.

27 According to Select's analysis, adoption of the
28 this proposal would have increased the Class III price by



1 \$0.04 per hundredweight as compared to both the five- and
2 ten-year average.

3 MS. TAYLOR: Mr. Brown, could you slow down a
4 little bit?

5 THE WITNESS: Yes, I can.

6 MS. TAYLOR: Thank you.

7 THE WITNESS: Proposal 11 would update specified
8 yield factors to eliminate farm-to-plant shrink.
9 Proposal 11 would update the yield factors for butterfat
10 to 1.22 --

11 (Off-the-record discussion took place.)

12 THE WITNESS: So I'll start with B again.

13 Proposal 11 would update specified yield factors
14 to eliminate farm-to-plant shrink. Proposal 11 would
15 update the yield factors for butterfat to 1.22, for the
16 protein value in cheese to 1.386, and for the butterfat
17 value in cheese to 1.582. Select asserts that the yield
18 factors for nonfat solids and other solids remain
19 unchanged due to rounding.

20 C: Proposal 12 would update the nonfat solids
21 factor from .99 to 1.03. Proposal 12 would replace the
22 current nonfat solids yield factor of .99 with 1.03.
23 According to Select's analysis, adoption of this proposal
24 would have increased the Class IV price from \$0.35 to
25 \$0.36 per hundredweight, as compared to both a five- and
26 ten-year average.

27 D: Select Milk Proposals 10 through 12 are taking
28 a piecemeal rather than a comprehensive approach to



1 formula yield changes. Unlike multiple studies over the
2 past several decades that collected data from multiple
3 different manufacturing facilities owned by many different
4 companies with respect to the cost of manufacture for the
5 purpose of setting Make Allowances, Select presents no
6 such studies with respect to its yield assumptions and
7 losses, both before and after plant receipt and throughout
8 the production process. Instead, Select simply relies on
9 its own internal data regarding its own facilities.

10 IDFA supports maintaining the status quo until a
11 much broader base plant study is completed that establish
12 real world yields, shrinkage, and dairy solids recovery,
13 including values for that recovery. There are many
14 complicated issues, including fat recovery, plant loss,
15 and other factors across the dairy industry. Studies will
16 need to take into account plant ages, investments, and
17 processing techniques. USDA should first conduct
18 comprehensive reviews of the product yield assumptions and
19 losses. This would facilitate making yield adjustments in
20 a comprehensive, rather than piecemeal fashion.

21 E: The proposals selectively focus on
22 revenue-enhancing elements of the yield formulas. Related
23 to the lack of any industry studies is the fact that
24 Select has focused on dairy farmer revenue enhancements,
25 excluding other considerations.

26 For example, today's Class III formula presumes
27 that all excess fat from cheese manufacturing is
28 successfully recovered, 90% in the cheese and the



1 remaining 10% ending up in the whey but valued as sweet
2 cream.

3 This presumption ignores the reality that: A,
4 every manufacturing system incurs losses in the form of
5 lost milk solids; and B, whey cream does not have the same
6 value as sweet cream, despite the wishes of all cheese
7 makers to the contrary.

8 Regardless of plant efficiency and full tanker
9 loads, many in the industry, especially in the Upper
10 Midwest and the Northeast, do not achieve full tanker
11 loads. Furthermore, unlike Select's assumption of no
12 farm-to-plant loss, it is likely that some purchased milk
13 solids are lost in that -- actually, in that
14 transportation, and data from all types of farms need to
15 be included in any analysis that would change the current
16 assumption of farm-to-plant loss.

17 We expect these yield studies can be accomplished
18 through the widely supported surveys for inclusion in the
19 upcoming Farm Bill. Simply put, Proposals 10 through 12
20 incorrectly assume that after applying the yield formulas
21 to milk processing, there is no need to account for other
22 losses that occur throughout the process from farm to
23 finish product.

24 F: Proponents' experience is not indicative of
25 broader experience. Select is known for its innovative
26 approaches and very large farms that likely generate more
27 efficient results and lower losses that are found in
28 industrywide.



1 Just as with Make Allowances, it is critical that
2 AMS examine yields across the entire dairy industry,
3 recognizing that others do not experience the same
4 efficiencies and likely experience greater losses. And it
5 costs money to achieve many of these efficiencies, which
6 in turn impacts plant costs, although we acknowledge that
7 there would also be an adjustment for per pound product
8 costs resulting from these investments.

9 Three: Proposal 10's specific flaws. In addition
10 to the overall flaws applied to all of Select's proposals,
11 the 93% butterfat recovery proposal assumes, first, that
12 higher fat capture has been implemented by everyone, and
13 two, that all butterfat recovery has equal value. Without
14 the new yield studies mentioned above, there is no way for
15 USDA to conclude, hat the first point is accurate.

16 As to the value of butterfat, the butter not going
17 into cheese is valued under the current formula at
18 Grade AA butter, even though USDA by regulation assigns
19 such butterfat, known as whey cream, to Grade B butter.
20 With 20% or greater discounts on whey cream compared to
21 fresh cream, the Class III fat assigned to whey cream is
22 simply overvalued under the current formula. This is in
23 addition to in-plant losses of milk fat during processing,
24 which the current formula does not recognize. These
25 defects would need to be fixed as part of any revisions to
26 current formula yield factors.

27 Select seeks an increase in Class III prices in
28 Proposals 10 and 11 of approximately \$0.12 per



1 hundredweight, but they fail to recognize the greater,
2 more than offsetting decreases that would result from
3 accurately accounting for both processing losses and whey
4 cream values.

5 As with the butterfat recovery issue, Proposal 11
6 also assumes there is no farm-to-plant shrink. FMMOs
7 price milk based on components and volumes measured at the
8 farm, but losses occur prior to delivery to our member
9 plants. Select, again, may be an industry leader in
10 reducing farm-to-plant loss, but AMS should not base yield
11 factors on one company's experience, especially given the
12 fact that Select's dairy farmer members are large enough
13 that they can and do deliver full tanker loads of milk,
14 reducing the risk of leakage from farm tank to plant silo.

15 But less than 10% of all farms produce enough milk
16 to fill tanker loads of milk, meaning the vast majority of
17 trucks hauling milk are still delivering multiple loads of
18 milk. It is therefore reasonable to conclude that the
19 losses experienced when formulas were adopted are still
20 happening today.

21 Failure to account for the diversity of farm size
22 and the implications for farm-to-plant loss based upon
23 less than full tanker loads of milk would further
24 incentivize manufacturing to prefer large farms over
25 smaller farms.

26 The implications to USDA's necessary small
27 business regulatory analysis we leave to USDA, but it
28 appears to be detrimental to smaller farms and the rural



1 communities that depend on those farms. As discussed in
2 DFA member testimony, fat clings to stainless tankers just
3 the same today as it did when the formulas were last
4 updated.

5 Again, milk sheds dominated by smaller farms
6 continue to experience larger loss of fat as a result.
7 Proposal 11 assumes away farm-to-plant losses in both
8 solids and fat. Until AMS conducts studies of these
9 issues, the proposals should not be adopted.

10 Proposal 12's specific flaws. Proposal 12 would
11 treat solids nonfat in the nonfat dry milk pricing formula
12 the same as proposed for cheese, a theoretical yield
13 approach relying on a perfect loss-less system. This is
14 not true even with the most modern and efficient
15 facilities, let alone average plants, often today
16 operating without the margin necessary to make the
17 investments that would be industry leading.

18 As just one example, after cream separation, some
19 portion of the solids nonfat remains together with the
20 butterfat and water. That lost SNF cannot then be
21 processed into nonfat dry milk, and nearly all cream is
22 priced on a multiple of the butter market, with no direct
23 value assigned to the skim solids in cream. Overvaluing
24 the volume of SNF and thus nonfat dry milk that can be
25 manufactured will overvalue and overprice the nonfat dry
26 milk that is market clearing and contributes to disorderly
27 marketing.

28 Conclusion: Adoption of Select's proposals would



1 at best be premature before widely supported AMS studies
2 are conducted, and likely would be a step backwards
3 because only producer revenue enhancing factors are
4 examined. This could overstate the impact of any yield
5 changes. Indeed, a comprehensive review would likely
6 result in revised yields factors that subtract from, not
7 add to, dairy farmer revenue.

8 MR. ROSENBAUM: Your Honor, Mr. Brown is available
9 for cross-examination.

10 CROSS-EXAMINATION

11 BY MR. MILTNER:

12 Q. Good afternoon, Mr. Brown.

13 Ryan Miltner representing Select Milk.

14 A. Good afternoon, Ryan.

15 Q. Mr. Brown, you are pretty familiar with the whole
16 Federal Order amendment process, aren't you?

17 A. It's been 15 years since I dealt with it, but
18 fairly -- fairly -- yes, fairly familiar. I'm old enough
19 to have been through a couple.

20 Q. What is the purpose when USDA issues an invitation
21 to submit proposals?

22 A. Anyone can submit proposals they think need to be
23 considered, and then USDA will decide which ones are
24 appropriate for a hearing.

25 Q. So were you -- where you have criticisms -- where
26 you have criticisms of the fact that the formulas don't
27 assume sufficient in-plant shrink, was that not an issue
28 sufficient enough for IDFA to submit a proposal?



1 A. If you don't have good data, you can't submit the
2 proposal. And that was discussed, but we simply don't
3 have the data to support it.

4 Q. Your members did not have data to document their
5 in-plant shrink?

6 A. Some do, some don't. It's surprising the
7 differences.

8 Q. And similarly, the issue of the valuation of whey
9 cream was not important enough for IDFA to submit a
10 proposal for USDA to consider.

11 A. Again, we just -- we discussed that very issue.
12 And where we really came down is, is there a way that, for
13 example, to get Ag Marketing Service to survey whey cream
14 as well as sweet cream so we have numbers for the next
15 round when we have an issue again. We didn't think we
16 could provide industry data again from people that market
17 whey cream, but we did not feel that it would be adequate
18 proof or support for a change in recommended decision
19 based on our past experience.

20 Q. And, similarly, I assume your members did not have
21 sufficient data within their own operations to provide
22 support for that type of proposal?

23 A. It didn't seem to work before. We really wanted
24 to make sure it was something that there would be comfort
25 with. Quite honestly, that it would be adequate. I mean,
26 those of us who have bought and sell cream know what whey
27 cream is worth. But I wish I had a database to share, and
28 I don't.



1 Q. Similarly, what's your understanding of the
2 purpose of a Hearing Notice issued by USDA?

3 A. It is a notice to consider the proposals they have
4 decided to bring to a formal rulemaking hearing.

5 Q. And isn't part of the reason to let everybody
6 within the industry or any other affected party know that
7 if you have opinions on these issues, here's where you
8 need to show up and let yourself be heard?

9 A. Yes.

10 Q. So where you criticize Select for only offering
11 its own data, the whole industry knows that if they have
12 different data that conflicts or supports Select's
13 position, they can show up and take the stand just like
14 you did, correct?

15 A. Yes, they can.

16 Q. Were you in the room for Mr. Allen's testimony
17 yesterday?

18 A. Yes.

19 Q. Did you hear his testimony on farm-to-plant shrink
20 specifically and state that if USDA felt that a reduction
21 in the amount of farm-to-plant shrink rather than its
22 wholesale elimination was better supported by the data,
23 Select would accept that decision?

24 A. Yes.

25 Q. Do you believe that the current farm-to-plant
26 shrink factors -- and by "you," I mean IDFA -- does IDFA
27 believe that those factors, as current, are appropriate?

28 A. We have no data to support or -- to support or



1 oppose making those changes. We do know the shrink
2 exists. It's the same challenge quantifying the
3 information. I appreciate Select's effort to do that.

4 Q. Do you -- so can I restate that as IDFA doesn't
5 know if the current factors are the right factors or not?

6 A. We know that they were appropriate when adopted.
7 We do not know how they need to be adjusted today.

8 Q. The current butterfat retention factor in the
9 formula is 90%, correct?

10 A. Yes.

11 Q. Does that mean that USDA assumes that that 90% has
12 been achieved by every cheese plant?

13 A. No.

14 Q. So where you state that Select assumes that its
15 higher fat capture has been implemented by everyone,
16 that's not exactly precise, is it?

17 A. No, it is not.

18 Q. If, in fact, plants are achieving a 93% butterfat
19 recovery, wouldn't that necessarily mean that they are not
20 penalized by paying for 10% of their butterfat as whey
21 cream, accepting your characterization of whey cream
22 valuation?

23 A. Please repeat that. I'm sorry.

24 Q. Sure.

25 A. A couple moving parts there.

26 Q. And I probably made a compound question there.

27 You argue that currently the formula makes cheese
28 plants pay for 10% of their butterfat at Grade AA value,



1 correct?

2 A. Yes.

3 Q. And that that 10% is actually more properly valued
4 as whey cream, correct?

5 A. Yes.

6 Q. Now, accept that characterization for purposes of
7 our questioning. If the formula were to move to
8 93% butterfat recovery, those plants would only be
9 overpaying on 7% of their butterfat; would that be
10 correct?

11 A. Yes. Assuming the 93% recovery is accurate for
12 the cheese, you are correct.

13 Q. And accepting that the whey cream is overvalued,
14 right?

15 A. Yes. That is true.

16 Q. On page 5, section 3, first paragraph, last
17 sentence, this -- you are summarizing -- I understand you
18 to be summarizing two flaws that you allege: The
19 valuation of whey cream and in-plant losses; is that
20 correct?

21 A. Yes.

22 Q. And you categorize those as defects, correct?

23 A. Yes.

24 Q. So where you say, "These defects would need to be
25 fixed as part of any revision to current formula yield
26 facts," again, that's IDFA's opinion on those points,
27 correct?

28 A. Yes. But en masse, not just certain parts.



1 Q. But whether those need to be fixed, that sets an
2 opinion of IDFA, correct?

3 A. Well, yeah, it does. It also -- and I think we
4 all agree -- the need for good data to have these
5 discussions, which sadly we don't currently have. Let me
6 just say, you guys did a great job putting together
7 information. It's just too bad it's not broader. I guess
8 that's what I would say.

9 Q. And, again, any other co-op can come in and give
10 the same data that Harmoni Campbell did, and any plant can
11 come in and provide the same data that Cheslie Stehouwer
12 did, right?

13 A. That is correct. Yes.

14 Q. Including IDFA's members, correct?

15 A. Anyone who has a role in the Federal Orders, from
16 my understanding, yes, could testify.

17 Q. And the Federal Register let the whole world know
18 that now is the time, right?

19 A. Yeah. Times. They were going.

20 Q. Yeah. Times.

21 At the bottom of page 7 you say, "Select seeks an
22 increase in Class III prices."

23 You heard Mr. Allen testify that price increases
24 are the result of, and not the impetus for, the proposals,
25 correct?

26 A. Yes.

27 Q. So -- you also heard him say Select's intent is to
28 make the formulas more accurate, correct?



1 A. Yes.

2 Q. And he -- he also testified that the butterfat
3 recovery factor might actually decrease prices in certain
4 circumstances, correct?

5 A. Yes.

6 Q. As a matter of fact, I think you and I had
7 conversations about that, correct?

8 A. Oh, yeah, we know the percentage, yes.

9 Q. We know the percentage. We figured that out.

10 A. Hopefully we came up with the same number looking
11 at it independently, which makes me feel better about my
12 educated guess.

13 Q. I'm more concerned that we figured it out. I'll
14 finish by asking you a similar question to that I asked of
15 Ms. Krebs.

16 Do IDFA and Select share the same goals in trying
17 to make these formulas as accurate as we can be?

18 A. Yes. I think we all -- well, certainly most of us
19 would like that to be the case, yes.

20 Q. And if to the extent there's a difference in how
21 we get to accuracy, those are primarily issues of policy
22 and data, correct?

23 A. Yeah. And I might add, it isn't good versus evil,
24 it's just what's the best way to get there.

25 Q. I would not have tried to make that
26 characterization, but I appreciate you clarifying it.

27 MR. MILTNER: Thank you. That's all I have.

28 THE COURT: Anyone else besides AMS?



1 CROSS-EXAMINATION

2 BY DR. CRYAN:

3 Q. Hello, Mr. Brown.

4 A. Good afternoon.

5 Q. You are concerned about lack of data for the yield
6 changes. Is that -- would that be addressed through --
7 best addressed through mandatory and audited survey of
8 costs and yields at plants?

9 A. A couple comments first.

10 We're delighted with your leadership. Working
11 with you and National Milk to get that in the Farm Bill
12 was one of our primary goals. So, yes, I think that is
13 important.

14 But I don't think you can let perfection be enemy
15 of the good, if you have got good strong data that's
16 reasonably broad covering a fair amount of product. And
17 that would be true with yields as well, but unfortunately,
18 we don't currently have that.

19 So that's -- that's where I come down.

20 That is the ideal. That doesn't mean it's the
21 only path. Because we haven't had it in the past, and we
22 still made decisions, which I think for the most part
23 we're pretty effective.

24 Q. But you believe that would meet your objections to
25 the --

26 A. That -- oh, absolutely. I think we all -- that's
27 discovery we have needed since the start of Order Reform,
28 quite honestly.



1 DR. CRYAN: Thank you very much.

2 THE WITNESS: You're welcome.

3 THE COURT: Any further questions? I'm mindful to
4 take a break.

5 Did you raise your hand earlier? Very good, sir.

6 AMS?

7 MS. TAYLOR: I think Mr. Miltner.

8 THE COURT: Oh, I'm sorry.

9 CROSS-EXAMINATION

10 BY MR. MILTNER:

11 Q. I left a note at my seat that had one more
12 question on it.

13 Mr. Brown, where you talk about the majority of
14 trucks on the road coming from multi-farm stops, how did
15 you come up with that number?

16 A. That -- that -- it shouldn't -- it's not majority
17 of trucks, it's majority of farms. Again, the volume
18 statements you made earlier are probably accurate. I
19 don't have the data.

20 Q. Okay.

21 A. Yes.

22 Q. I didn't want to try to do the calculation, but
23 that didn't make sense to me.

24 A. No. Hopefully that helped clarify.

25 Q. It did. Thank you.

26 A. You're welcome.

27 THE COURT: Okay. AMS?

28 MS. TAYLOR: Good afternoon.



1 CROSS-EXAMINATION

2 BY MR. WILSON:

3 Q. Good morning, Mr. -- good afternoon, Mr. Brown.

4 A. Good afternoon.

5 Q. Todd Wilson, AMS.

6 I have a question on page 7 in discussing
7 Proposal 12's flaws. And we heard this from Ms. Krebs a
8 few minutes ago about theoretical yield approach.

9 Is it your understanding that the theoretical
10 yield approach that you reference is the concept of
11 accounting for buttermilk powder in the milk solids nonfat
12 part of the Class IV nonfat solids price calculation?

13 A. Currently? Not directly. I mean, it's inferred.
14 We read recommended decisions that this is discussed --

15 Q. Can you speak closer to the mic?

16 A. I'm sorry, yes.

17 If you -- if you -- if you -- from my
18 recollection -- again, my brain doesn't work like it used
19 to -- but, yes, it was discussed as part of that entire
20 discussion on how you value nonfat solids in milk. But
21 it -- it's -- and I should remember because I was with
22 Darigold when this was discussed the last time -- but as
23 far as the detail of it, honestly, I don't remember.

24 Q. So in your statement you have, on the -- in the
25 first sentence after the hyphen, "a theoretical yield
26 approach relying on a perfect loss-less system."

27 Can you elaborate a little about more about what
28 you mean by those?



1 A. What I mean is that the yields -- when you're
2 looking at yields in a plant, your yield should include
3 loss. I mean, it should, because that's the -- I mean, if
4 we're looking at value of milk, it's price times quantity,
5 more or less, on the different components, and so it
6 should be part of that consideration.

7 Does that mean that we have work to do on formulas
8 to make them more complete? Yes, I think that we do as
9 far as product yields.

10 MR. WILSON: Okay. Thank you.

11 MS. TAYLOR: That's it from AMS.

12 THE COURT: Thank you.

13 REDIRECT EXAMINATION

14 BY MR. ROSENBAUM:

15 Q. I mean, Mr. Brown, just to clarify, maybe it's
16 clear already, but when you refer to a loss-less system,
17 are you simply referring to the fact that the current
18 pricing system assumes that all the milk that comes into
19 the plant goes into a useable product?

20 A. Yeah, the only direct adjustments from
21 farm-to-plant loss, there are no plant losses in the
22 current formulas.

23 Q. Can you say that one more time?

24 A. I said, the only adjustments of the farm-to-plant
25 loss, there are no implicit plant loss as part of the
26 formulas currently.

27 MR. ROSENBAUM: That's all I have.

28 THE COURT: Okay. Let's move the exhibit into



1 evidence.

2 MR. ROSENBAUM: Yes, your Honor.

3 THE COURT: Exhibit 228?

4 Seeing no objections, it is made a part of the
5 record.

6 (Thereafter, Exhibit Number 228 was received
7 into evidence.)

8 THE COURT: Let's take an afternoon break. Come
9 back at -- let's come back at 2:50.

10 Off the record.

11 (Whereupon, a break was taken.)

12 THE COURT: Back on the record.

13 Raise your right hand.

14 DR. PETER VITALIANO,

15 Being first duly sworn, was examined and
16 testified as follows:

17 THE COURT: Your witness.

18 DIRECT EXAMINATION

19 BY MS. HANCOCK:

20 Q. Good afternoon, Dr. Vitaliano.

21 A. Good afternoon.

22 Q. Thank you for round three on the stand at this
23 hearing -- no, round four. Math is getting more and more
24 difficult as we go along. Is it five?

25 A. I did a short one on the barrel cheese issue.

26 Q. Okay. Well, nonetheless, you're here on
27 higher-of; is that fair?

28 A. Yes.



1 Q. Okay. And did you prepare Exhibit NMPF-30 in
2 support of your testimony today?

3 A. I did.

4 MS. HANCOCK: Your Honor, if we could mark that as
5 Exhibit 229?

6 THE COURT: Yes.

7 (Thereafter, Exhibit Number 229 was marked
8 for identification.)

9 BY MS. HANCOCK:

10 Q. Did you also prepare a spreadsheet that we have to
11 talk about with the higher-of as well?

12 A. Yes, I did.

13 Q. And is that identified as NMPF-30A, as in Adam?

14 A. Yes.

15 MS. HANCOCK: Your Honor, if we could mark that as
16 Exhibit 230.

17 THE COURT: Yes. Marked 230. Thank you.

18 (Thereafter, Exhibit Number 230 was marked
19 for identification.)

20 MS. HANCOCK: Thank you.

21 BY MS. HANCOCK:

22 Q. Dr. Vitaliano, would you please proceed with your
23 testimony?

24 A. Okay.

25 Hi. I'm Peter Vitaliano for the National Milk
26 Producers Federation, vice president of economic policy
27 and market research. I have been here before. I think I
28 have put my identifying information and background



1 information into the record, but if there's anything that
2 I should repeat, let me know.

3 I have -- my statement consists of some
4 introductory background information on the federation and
5 the process that our organization went through to develop
6 a balanced set of proposals we brought to this hearing.
7 That's already in the record, and it's in my written
8 statement. I will not repeat it here.

9 The same with a later section on the overall
10 economic impacts of our suite of proposals. Likewise,
11 that's already been repeated -- been in the record and in
12 our written statement. I will not repeat that.

13 This testimony is in support of Proposal 13
14 concerning the base Class I skim milk price. Proposal 13
15 is to restore the original Federal Order Reform Class I
16 skim milk price mover.

17 NMPF requests the Secretary amend 7 CFR, paragraph
18 1000.50(b), applicable to all Federal Orders as specified
19 at the conclusion of this testimony, which would replace
20 the current Class I skim milk price mover with the
21 original Class I skim milk price mover in effect from
22 January 2000 through April 2019. The current language in
23 7 CFR 1000.50(b) is the product of two rulemaking
24 decisions: One, Federal Order Reform; and two, the final
25 rule implementing Section 1403 of the Agriculture
26 Improvement Act of 2015. Understanding both of these
27 actions is important to understanding the deficiencies of
28 the Class I mover -- the current Class I mover during



1 periods of market instability since its implementation in
2 May 2019.

3 In Federal Order Reform, USDA adopted a new
4 Class I mover for the newly consolidated 11 Federal Orders
5 to replace the basic formula price, BFP. The BFP was
6 derived from a survey of prices paid for Grade B milk by
7 dairy manufacturing plants processing primarily butter,
8 nonfat dry milk, and cheese. It was, therefore, reported
9 as a single price which blended the value of Grade B milk
10 used to manufacture those products.

11 The BFP was discontinued at the end of 1999 due to
12 the declining and increasingly unrepresentative volume of
13 Grade B milk, and the Federal Order system subsequently
14 adopted product price formulas, or PPFs, to determine
15 minimum price, class prices. The transition to these new
16 class price formulas involved the adoption of four classes
17 of milk, including two full manufacturing use classes, III
18 and IV, with IV to be considered to be the full graduation
19 to full class status of the prior Class III A skim milk
20 price.

21 When a new Class I mover needed to be identified,
22 the question arose as to which manufacturing milk class
23 price to use as its basis. The Department determined the
24 mover should be the higher of the most currently
25 calculated Advanced Class III or Class IV skim milk
26 pricing factors. Federal Order Reform identifies at least
27 four reasons for using the higher-of Class III or Class IV
28 as the mover and base value for Class I skim milk prices.



1 First, basing Class I on the higher of III or IV
2 would -- this is a quote from the Federal Order Reform
3 proposed rule -- quote, "more accurately reflect the value
4 of milk in those these different categories of use," in a
5 four-class system.

6 Furthermore, given the separation of manufacturing
7 milk into two classes, using the higher-of Class III and
8 IV would, quote, "assure that shifts in demand for any one
9 manufactured product would not lower...Class I prices,"
10 end of that quote.

11 Second, using the higher-of the two classes,
12 quote, "to move Class I prices [will help] to reduce the
13 volatility in milk prices," end of quote.

14 Third, a major consideration was to address class
15 price inversions and depooling. The decision stated, and
16 this is an extended quote: "Class price inversion occurs
17 when a market's regulated price for milk used in
18 manufacturing exceeds the Class I fluid milk price in a
19 given month and causes serious competitive inequities
20 among dairy farmers and regulated handlers... Thus, an
21 inequitable situation has developed where milk for
22 manufacturing is pooled only when associating it with a
23 marketwide pool increases returns. Illustrative of the
24 worsening class price inversion problem are the growing
25 volumes of milk that, while normally associated with
26 Federal Orders, are not being pooled due to price
27 inversion problems ... Since volatility in the
28 manufacturing product markets is expected to continue --



1 very good call there -- the Class I price mover developed
2 as part of this Federal Milk Order Reform process should
3 address this disorderly marketing situation."

4 And finally, the purpose was to assist Class I
5 handlers in competing for a milk supply. With a quote
6 starting here: "In some markets the use of a simple or
7 even a weighted average of the various manufacturing
8 values may inhibit the ability of Class I handlers to
9 procure milk supplies in competition with those plants
10 that make the higher-valued of the manufactured products.
11 Use of the higher-of the Class III or Class IV price will
12 make it more difficult to draw milk away from Class I uses
13 for manufacturing," end of that quote.

14 And finally, indeed the Department recognized, one
15 final quote here: "The provisions adopted in the [Federal
16 Order Reform] best fulfill the requirements of the
17 Agricultural Marketing Agreement Act," end of quote.

18 Accordingly the Department concluded that the
19 higher-of the most current Class III or Class IV value
20 should be the mover for Class I prices. The pricing for
21 the Class I mover prevailed in all orders of the Federal
22 Order system until the 2018 legislation.

23 Section 1403 of the Agriculture Improvement Act of
24 2018, which was implemented in the 2019 Final Rule,
25 changed the Class I mover to the current language, which
26 uses the average-of Class III and Class IV prices, plus a
27 fixed differential of \$0.74 per hundredweight. This
28 legislative change in the mover resulted from a request by



1 Class I handler representatives to change the mover to one
2 that would better allow them to hedge the cost of Class I
3 milk in the dairy product futures markets.

4 NMPF (sic) to this request, subject to the
5 incorporation of the \$0.74 per hundredweight fixed
6 differential. This differential represented the average
7 value that the higher-of Class III and IV contributed to
8 the Class I mover, above the average-of Class III and
9 Class IV from 2000 through August 2017.

10 Thus, the intention of both Class I milk buyers
11 and dairy farmer sellers was that the change would be
12 revenue neutral and would accommodate the buyers' desires
13 to better manage their price risk without harming the
14 sellers. The Department reflected this understanding of
15 the amendatory language when promulgating the Final Rule.

16 This is a quote: "The change in the Class I price
17 formula applies uniformly to both large and small
18 businesses. The dairy industry has calculated that
19 applying the higher-of provisions to skim milk prices has
20 returned a price \$0.74 per hundredweight above the average
21 of the two factors since the pricing formulas were
22 implemented in 2000. Thus, the inclusion of the \$0.74 in
23 the calculation should make the change roughly revenue
24 neutral [emphasis added].

25 "At that same time, it is anticipated that using
26 the average of the Class III and Class IV advanced pricing
27 factors in the Class I skim milk price formula will allow
28 handlers to better manage volatility in monthly Class I



1 skim milk prices, using Class III and Class IV milk
2 futures and options. Until now, uncertainty about which
3 class price will end up being higher each month has made
4 effective hedging difficult. Amending the Class I skim
5 milk price provisions may help small businesses better
6 utilize currently available risk management tools," end of
7 quote.

8 This was effectively an early recognition by the
9 Department of the growing importance of price risk
10 management and the potential need for the Federal Order
11 price mechanisms to accommodate this. But notably, this
12 statement did not reference nor discredit the four reasons
13 for originally adopting the higher-of mover elucidated in
14 the 1999 Final Decision. Because the 2019 amendment has
15 not functioned as intended, or anticipated by NMPF, has
16 exacerbated disorderly marketing conditions, has not been
17 revenue neutral, and will continue to have deleterious
18 effects on the dairy industry so long as it is in place,
19 the change contained in Proposal 13 is requested.

20 Disorder caused by the average-of plus \$0.74 per
21 hundredweight Class I mover: Comparing the higher-of
22 Class I formula in operation from January 2000 to
23 April 2019 to the average-of plus \$0.74 per hundredweight
24 Class I formula, in operation since May 2019, reveals a
25 clear asymmetrical impact. The higher-of Class I mover
26 will exceed the average-of Class I mover whenever the
27 Class III and IV advanced skim milk pricing factors differ
28 by more than \$1.48 per hundredweight. It does not matter



1 which of the advanced skim pricing factors is higher. The
2 reverse will be true whenever the advanced skim pricing
3 factors differ by less than \$1.48 per hundredweight.

4 Thus the maximum amount by which the average-of
5 Class I mover can exceed the higher-of Class I mover is
6 \$0.74 per hundredweight, which occurs when the two
7 advanced skim milk pricing factors are equal. However,
8 there is no practical limit by which the average-of
9 Class I mover can fall below the higher-of Class I mover.

10 The asymmetric price risk inherent in the current
11 Class I mover became evident during the second half of
12 2020 and then again during much of 2022. During these
13 periods the current Class I mover fell mostly and
14 significantly below the higher-of mover.

15 NMPF calculates that since it became effective in
16 May 2019, the cumulative market losses in pooled Class I
17 skim milk values and all Federal Orders have reached
18 941.1 million through July 2023. Now that we have August
19 in, that number is 998.3 million through August 2023.

20 NMPF greatly appreciates the Secretary's partial
21 compensation of these losses through the two rounds of
22 Pandemic Market Volatility Assistance program, or PMVAP
23 payments. However, this would not have been needed if the
24 amended Class I mover had performed as expected.

25 More specifically, during the four and one-third
26 years since the current Class I mover has been in place,
27 there have been three episodes when the higher-of mover
28 exceeded the average-of mover, by close to \$1 per



1 hundredweight or more. By contrast, as noted, the current
2 average-of mover can never exceed the higher-of mover by
3 more than \$0.74 per hundredweight.

4 During the first of these episodes, the six months
5 from July through December 2020, the difference between
6 the two averaged minus \$3.56 per hundredweight, generating
7 total losses of pooled Class I skim milk value of
8 \$753.2 million, or an average of \$125.5 million per month.

9 During the second of these episodes, the four
10 months from August through November 2022, the difference
11 averaged minus \$1.47 per hundredweight, generating total
12 losses of pooled Class I skim milk value of
13 \$197.8 million, or an average of \$49.4 million per month.

14 During the third, and smallest of them, the two
15 months of July and August this year, the difference
16 averaged minus \$1.40 per hundredweight and will generate
17 an estimated \$58 million of total pooled Class I skim milk
18 values, or an average of \$44 million per month. With the
19 August numbers in, that is \$89.6 million for the two
20 months, for an average of \$44.8 million per month.

21 In contrast to those three monthly loss figures
22 during these three episodes -- to recap, \$125.5 million,
23 the second half of 2020, \$49.9 million per month in the
24 second half of 2022, and \$44.8 million in the last
25 months -- the maximum positive difference of \$0.74 per
26 hundredweight would generate a gain in total pooled Class
27 I skim milk values of \$25.4 million per month, based on
28 average monthly producer milk volumes during May 2019



1 through July 2023.

2 Figure 1 illustrates the history of cumulative
3 losses of Class I skim milk values from all Federal Order
4 pools during the entire time the average-of mover has been
5 in effect, through this past July.

6 Actually the one in my testimony is through this
7 past July, the one that will hopefully show up on the
8 screen shortly -- maybe I plugged it in wrong -- is
9 through August.

10 It does not include offsets from PMVAP payments
11 nor is it an economic analysis. But it illustrates the
12 pattern that is generated by the increasing volatility of
13 the Federal Order manufacturing class prices. This
14 pattern consists of periods of relative stability during
15 which the average-of -- thank you -- mover generates
16 modest gains over the higher-of mover, followed by periods
17 of volatility, described in the preceding paragraph, that
18 generate losses that more than offset the previous modest
19 gains. The result is mounting cumulative market losses to
20 producers over time.

21 When last month is added to the analysis, the
22 cumulative losses will amount to just about \$1 billion
23 dollars, as mentioned earlier. More detailed information
24 relative to this analysis is provided in Exhibit NMPF-30A
25 that should also have been handed out, the-one pager.

26 The change in Class I movers has increased the
27 level of disorderly marketing during this period by
28 reducing Class I prices relative to the other classes and



1 thus creating greater incentives to depool milk.

2 Increased depooling is inconsistent with the Federal Order
3 Reform justification that the Class I mover should reduce
4 the disorderly marketing conditions created by class price
5 inversions and depooling.

6 The enhanced demand for cheese generated in 2020
7 by the Farmers to Families Food Box Program, relative to
8 the demand for butter and nonfat dry milk, widened the
9 spread between Class III and Class IV prices well in
10 excess of the \$1.48 break point. This substantially
11 lowered Class I prices compared to where the previous
12 higher-of would have established them, created class price
13 inversions, and generated extensive depooling of Class III
14 milk during the second half of 2020. This was
15 inconsistent with the Federal Order Reform justification
16 that the higher-of mover would "assure that shifts in
17 demand for any one manufactured product will not lower ...
18 Class I prices." That was a quote, that last phrase.

19 Class price inversions recurred in 2022 because of
20 an unusually long period of tight milk supplies. This led
21 to relatively high Class IV skim milk prices, as cheese
22 and whey plants continued to receive relatively adequate
23 milk supplies while butter and nonfat dry milk plants
24 played their traditional balancing roles, producing
25 reduced volumes during periods of tight milk supplies.
26 The result was, again, price volatility and substantial
27 depooling of Class IV skim milk.

28 The third, shorter incident in the summer of 2023



1 resulted when cheese and whey prices fell due to excessive
2 milk supplies relative to domestic and reduced export
3 demand, while butter prices remained robust, pressuring
4 Class III skim milk prices relative to those for Class IV
5 skim milk.

6 Hence, a wide variety of market conditions have
7 proven to be capable, on a seemingly regular basis, of
8 generating market volatility that drives Class III and
9 Class IV skim milk prices sufficiently far apart to drop
10 the current Class I skim milk price mover more than \$1 a
11 hundredweight below the higher of the two, while periods
12 of relative market stability are needed to allow the
13 current mover to fall within its strictly limited range of
14 \$0.01 to \$0.74 per hundredweight above its Federal Order
15 Reform predecessor.

16 In sum, the average-of Class I mover is
17 inconsistent with USDA's Federal Order Reform
18 justifications for the higher-of and does not operate as
19 intended because it builds in an unintended asymmetric
20 risk to producer income, which has resulted in nearly
21 \$1 billion of losses in producer income in little more
22 than four years of operation.

23 The current Class I mover dramatically increases
24 the marketing disorder represented by volatile volumes of
25 depooled milk. Market and price volatility continue to be
26 a basic feature of dairy markets and can be anticipated to
27 occur in the future. Little to no data has yet been
28 provided to suggest that the average-of Class I mover has



1 facilitated actual risk management activity with a total
2 value to produce fluid milk processors anywhere near the
3 magnitudes of the quantifiable losses it has dealt to the
4 nation's dairy farmers.

5 The experiment with the average-of Class I mover
6 must therefore be deemed a failure, and the Federal Orders
7 should be amended to return to the higher-of formula.

8 That is the proposed solution. NMPF proposes to amend the
9 Class I skim milk price mover to return it to its original
10 form, as initially adopted in Federal Order Reform;
11 namely, the higher-of the Class III and Class IV Skim Milk
12 Pricing Factors. All of the reasons the Department cited
13 for its original decision, as previously summarized, still
14 apply -- and likely even more so -- to contemporary dairy
15 markets and will doubtless continue to do so going
16 forward.

17 In its lengthy and thorough deliberations and
18 analyses, the group of experts that developed NMPF's
19 package of Federal Order modernization proposals
20 deliberately maintained, and included in its
21 recommendations to NMPF's policy-making bodies, an
22 alternative to returning to the higher-of mover that
23 retained the basic average-of mover mechanism and
24 incorporated a periodic recapture of any lost Class I skim
25 milk pool revenues relative to the higher-of mover.

26 This alternative was unanimously rejected in favor
27 of returning to the higher-of mover. While this
28 alternative, and the similar Proposal 14 submitted by IDFA



1 and Proposal 15 submitted by the Milk Innovation Group,
2 all effectively adopt the higher-of as the standard for
3 generating Class I skim milk price revenue to dairy
4 farmers through Federal Order pools, they all do so in an
5 after-the-fact manner that fails to maintain the maximum
6 monthly separation between the advanced Class I and the
7 manufacturing class prices that generates the best
8 performance for a Class I mover identified by the
9 Department in Federal Order Reform.

10 This testimony provides an overview of NMPF's
11 justification for adoption of Proposal 13. More detailed
12 testimony will follow that supports all, or key provisions
13 of, Proposal 13, including testimony provided by Craig
14 Alexander, representing NMPF member cooperative Upstate
15 Niagara Cooperative, other members of the NMPF task force
16 that developed NMPF's Federal Order modernization
17 proposals, an expert witness from another organization,
18 and producers who are members of NMPF member dairy
19 cooperatives.

20 NMPF sincerely wishes to thank Secretary Vilsack
21 and the Department for holding this important hearing and
22 for thoughtfully considering adoption of its proposed and
23 balanced amendments to the Federal Milk Marketing Order
24 regulations. NMPF has devoted considerable time and
25 resources to thoughtfully considering and recommending the
26 important changes it considers necessary to correct the
27 growing misalignment between the dynamic changes in the
28 U.S. dairy industry since Federal Order Reform and the



1 largely unchanged factors in the critical Federal Order
2 component and class price formulas originally adopted at
3 that time.

4 Together, NMPF is requesting the Secretary to
5 amend certain provisions of 7 CFR 1000.50-52, applicable
6 to all Federal Milk Marketing Orders. The changes to
7 these regulations that Proposal 13 would entail are as
8 follows, as shown on the screen. This is the simplest of
9 all our recommended language changes. And it would simply
10 change the 1000.50(b), the Class I skim milk price. The
11 Class I skim milk price per hundredweight shall be the
12 adjusted Class I differential specified in 1052, strike
13 the next section. As mentioned, all of my recommended
14 Federal Order regulatory language changes incorporate all
15 five of our recommendations. So this -- this next
16 strike-out is pertinent to our support for Proposal 19 on
17 Class I differentials. But then continuing, plus the
18 higher-of, instead of the simple average-of, the
19 advantaged pricing factors computed in paragraph (q)(1)
20 and (2) of this section, rounded to the nearest cent.

21 Q. Thank you, Dr. Vitaliano.

22 I just want to highlight a couple of things in
23 your testimony to make sure that we're clear on what we're
24 doing.

25 On page 4 of your testimony, this -- this is in
26 the middle of the section where you are citing some of the
27 historical changes that had evolved to get to the
28 average-of mover; is that fair?



1 A. Which paragraph are you citing there?

2 Q. I'm just putting this into context that this is
3 the section that we're in; is that right?

4 A. Okay. Yeah. And are you talking about how
5 National Milk and the processor groups came to the
6 agreement to make the change?

7 Q. Well, and just that you are providing the
8 historical context --

9 A. Yes.

10 Q. -- on page 4 there?

11 A. That's correct.

12 Q. And so when you are in -- on the last half of this
13 page where it starts off and it says, "Federal Order
14 Reform identifies at least four reasons for using the
15 higher-of," starting there in that section, that's what
16 you have cited down below in the footnotes there where you
17 are citing to the actual Federal Register; is that right?

18 A. That is correct.

19 Q. Okay. And so when you are talking about Federal
20 Order Reform, that's -- what you are citing there was
21 first in 1999, the Federal Order, and from that April 2nd,
22 1999, Federal Register that's cited there?

23 A. That's correct.

24 Q. And then you go on to talk about the legislative
25 change as well on the next page.

26 A. Yes. And the legislative change was also
27 footnoted on page 4 for the March 11, 2019, Federal
28 Register notice. And that continues through the first



1 full paragraph on page 5, also stemming from that 1999
2 Federal Order Reform Federal Register notice.

3 Q. Okay. So I want to jump ahead to page 6, and I'm
4 hoping that you can expand a little bit more on the
5 calculation that -- I think sometimes when the economists
6 do math, at least for me, it takes me a couple of times to
7 hear it to make sure I understand what you are saying.

8 But you have done a calculation there that shows the
9 effect of that -- the average-of essentially providing a
10 cap on the -- on the delta that can occur between the
11 prices. Is that fair?

12 A. That's correct.

13 Q. Can you expand on that or maybe even just
14 reiterate it in a more anecdotal way that can really help
15 capture what you are talking about there?

16 A. Certainly. It's not economics, it's arithmetic.

17 Q. Well, it's all the same to me.

18 A. When -- if you take two numbers and take their
19 average, the average between two simple real numbers is
20 going to be halfway between those two, and the higher-of
21 is going to be the higher-of those two. So as -- consider
22 taking two numbers, when they are both the same, the
23 average of them is the same as both of them, which is
24 obviously, therefore, the same as the higher-of the two.

25 As the two numbers separate, no matter which one
26 goes up or down, the further apart they get, let's say you
27 have -- you know, both numbers are 10 and 10. If one of
28 them drops to 8, the average is 18 divided by 2, which is



1 9, which is halfway in between. So the average-of two
2 numbers will always be halfway between the difference
3 between the two numbers.

4 So if the -- in this case, when we take the
5 average-of two numbers and add \$0.74 to it, the average-of
6 plus \$0.74 will be \$0.74 higher than the higher-of the two
7 numbers when they are the same.

8 As the two numbers deviate, once they get to be
9 twice \$0.74 apart, \$1.48, then the average will be
10 basically the same as the higher-of, Because the
11 average-of will be \$0.74 below the higher-of, you add
12 \$0.74 back into the average, and it will equate.

13 As the two numbers fall more than \$1.48, or twice
14 \$0.74 apart, then the average-of plus the \$0.74 falls
15 increasingly below the higher-of. Just -- does that --
16 arithmetic.

17 Q. Arithmetic by an economist. Okay. I appreciate
18 that.

19 And then -- so -- so explain how the cap works
20 then in comparison to the higher-of.

21 A. The cap? You mean the --

22 Q. How it becomes an effective cap.

23 A. That the higher-of -- arithmetically, the
24 average-of plus \$0.74 can never be more than \$0.74 above
25 the higher-of. It can fall unlimitedly below.

26 In the case of milk prices, since Class III and
27 Class IV prices are likely to be not zero, maybe, let's --
28 let's say \$10, maybe -- well, actually during the --



1 during the worst month of the second half of 2020,
2 Class III and Class IV advanced skim milk pricing factors
3 were, as I recall, about \$11 and something apart. And the
4 difference between the higher-of mover and the average-of
5 plus \$0.74 mover, the average-of plus \$0.74 fell, as I
6 recall, \$5.16 below the higher-of.

7 Again, contrast that to the average-of could never
8 fall -- could never rise more than \$0.74 above. As I
9 explained there, the average-of plus \$0.74 is forever
10 confined at the highest level to the range of \$0.01 to
11 \$0.74 above the higher-of.

12 Q. Okay. So if I am just an average buyer of milk,
13 does that mean that as the buyer, I am -- I can see -- if
14 I'm using the average-of pricing mechanism, as the
15 price -- or the spread between the higher-of and the lower
16 one becomes increasingly larger, I can reap a benefit of
17 that because the average-of is pulling that -- the lower
18 one is pulling the price down?

19 A. There would be a benefit to a buyer of milk
20 compared to having to buy milk at the higher-of price.

21 Q. Okay. But also as the buyer, that cap essentially
22 comes into play because, if I'm looking at the spread --
23 if I'm capped essentially by that \$0.74 above the
24 higher-of, I know that there's a cap that above which I'm
25 not going to have to pay if I'm paying under the
26 average-of pricing?

27 A. That's correct. It's -- it's kind of like a
28 regulatory-induced option for buyers of milk.



1 Q. Wasn't this something that was predictable back
2 when it was established?

3 A. It was to some extent. But, again, the background
4 of it was producer representatives from National Milk were
5 very interested in -- when asked, in accommodating -- to
6 the extent practicable, accommodating the general -- the
7 interest of processor groups in finding something that was
8 more hedgeable. It was an early indication, as I
9 mentioned, of the rise of risk management becoming
10 important in the context of Federal Order regulation and
11 how those two did or did not fit together.

12 During those discussions there was a discussion
13 about what revenue-neutral really meant. There was -- one
14 suggestion was made that since producers were giving up
15 something -- that it was intuitively understood that the
16 higher-of had a certain security factor. We didn't really
17 fully understand that arithmetic that I just went through.
18 You know, the markets gave us a rather soon and rather
19 brutal lesson in arithmetic on that score.

20 But there was a sense that we're -- you know,
21 producers would be -- in accommodating that request from
22 processors for better hedging ability, there was a--
23 there was a sense that we're kind of giving up something
24 that has a little bit more security to it than the
25 average. It was an intuitive understanding.

26 But the response was, no, this needed to be
27 strictly revenue neutral in the sense that that \$0.74 was
28 developed, which was ultimately to look back over the



1 difference between the higher-of and the average-of for
2 the entire period starting with Federal Order Reform in
3 January 2000, up to the time those discussions were taking
4 place, which was in the summer of 2017.

5 Q. Okay. But it's fair to say that at the time it
6 was implemented, it was not only just intended, but that
7 was the goal, was that it would be revenue neutral to the
8 dairy farmer; is that fair?

9 A. That was the understanding, as well as, again, the
10 discussion settled on an average of base mechanism fairly
11 quickly. And in the interest of genuinely trying to
12 facilitate risk management for the folks that, you know,
13 our cooperatives sold milk to, there was a sense that that
14 was -- that was probably, with maybe more trust in the
15 history of price movements, Class III and IV, continuing
16 in the future. In a sense, we -- we kind of sort of
17 disregarded our own sense that the industry is evolving
18 and capable of showing us surprises that we have not seen
19 before. And, again, unfortunately, that was to our -- to
20 our chagrin, actually, was -- was shown to be the case
21 very quickly after that -- that change was made.

22 Q. And so if -- if -- now that we see what the
23 effects are in the proposal by National Milk to go back to
24 the higher-of, the opponents of that, as you understand
25 it, are those who benefit from that price cap; is that
26 fair?

27 A. Yeah. We will see what -- what transpires in the
28 cross-examination. We recognize, because National Milk,



1 its original -- you know, after that -- in fact, before
2 the second half of 2020 was done, while we were still
3 shocked by the change, we did -- National Milk started
4 looking into, as I had mentioned, a modification to the
5 mover that would retain the average-of mechanism and its
6 hedgability, but incorporating a recoup -- basically a
7 revenue recoup mechanism after the fact, similar to that
8 in the -- you know, the two proposals from IDFA and MIG.
9 But we approached IDFA, you know, with that idea and were
10 pretty soundly rebuffed.

11 We continued to go ahead and develop that into a
12 proposal to USDA for an emergency hearing to make the
13 change, but then received word that the Secretary of
14 Agriculture, as I understand it, would prefer to see
15 Congressional funds, through what turned out to be the
16 PMVAP, and did not want to go to a hearing given the
17 differences between the two groups.

18 Q. Okay. And -- and that's what you -- that
19 alternative that you had considered and talked with IDFA
20 about previously is what you believe is -- is similar to
21 what they have proposed in Proposal 14; is that right?

22 A. That's correct.

23 Q. And -- and the downside to dairy farmers in that
24 situation is that while they might ultimately receive the
25 higher-of, it's not going to be contemporaneous with the
26 actual sale of the milk?

27 A. That's correct. It would not meet the criteria
28 that USDA -- the numerous criteria that USDA correctly



1 laid out in Federal Order Reform.

2 Q. And then the buyers in those situations would
3 receive the float or the time value of a delayed payment
4 in return for the dairy farmers not having that
5 contemporaneous payment?

6 A. That was part of it, but it was more that the
7 producers -- even though we -- as I explained, we
8 initially came up with that idea, approached the
9 processors, did not receive much of a welcome on that,
10 proceeded to try to seek it on our own through USDA, were
11 told that, let's try the PMVAP approach.

12 We continued to look at that all the way through
13 our subsequent, much more detailed examination of all of
14 the Federal Order Reform product price formulas and
15 maintained the -- what we call the best possible
16 average-of, all the way up to the time when we presented
17 that and returning to the higher-of to our decision-making
18 body.

19 So we kept that option of the -- you know, the
20 recapture average-of base mover, all the way through up
21 until we came to our -- basically our decision-making
22 bodies chose the final package of reforms. So we gave it
23 a thorough vetting.

24 Q. Before coming up with National Milk's current
25 proposal?

26 A. That's correct.

27 And I must say that the -- the idea of returning
28 to the higher-of is probably one of the most, I'm going to



1 say passionately embraced parts amongst dairy farmers in
2 this country of our package of proposals. We have heard
3 that testimony from several producers already.

4 Q. We have.

5 I want to talk briefly about your Exhibit 230,
6 which is your spreadsheet showing the difference in the
7 Class I.

8 A. Yes.

9 Q. And I don't know if you can pull that up on your
10 screen.

11 A. I don't have it on here, it's rather busy. But I
12 think we handed out the one page to everybody.

13 Q. Yeah. Do you need a copy?

14 A. Yeah. I didn't -- forget to bring one up. But I
15 am pretty familiar with it, so I can probably answer
16 without it. But if you want to ask something specific...

17 Q. Well, you had, during your testimony, mentioned
18 that you have since had the opportunity to look at August
19 numbers, and I wanted to just get those added to this
20 total here.

21 Is it fair to say you don't know the market
22 breakdown for August as you sit here today?

23 A. I have it in my computer here, but I can -- I can
24 produce this with an updated -- I'm getting a little short
25 of space on my -- on putting the spreadsheet on a piece of
26 paper. But I can produce an amended version of this
27 exhibit --

28 Q. Okay.



1 A. -- that would have August.

2 And what it does shows is that in the -- the
3 second page -- page 2 of 2, on the bottom right-hand
4 corner where it says minus 941.1, that will say minus
5 998-point -- whatever it was in my testimony. Basically,
6 for all practical purposes, you know, right around a
7 billion dollars.

8 Q. When you say -- did you add that on the fly when
9 you were on page 6 of your testimony?

10 A. I got that from the spreadsheet and put it in so
11 that the -- because I had -- I needed to submit this
12 testimony in advance before I had those numbers from the
13 Market Administrator's websites.

14 Q. Okay. So if we don't end up adding in a new
15 exhibit, if we just modified Exhibit 230, it would be to
16 change that total from 941 million to 998 million?

17 A. .3, yes.

18 Q. 998.3. Okay. Thank you.

19 MS. HANCOCK: That's all I have.

20 Your Honor, he is available for cross-examination.

21 THE COURT: Questions for this witness?

22 CROSS-EXAMINATION

23 BY MS. VULIN:

24 Q. Good afternoon, Dr. Vitaliano. How are you?

25 A. Good afternoon.

26 Q. Good. My name is Ashley Vulin. I am an attorney
27 with the Milk Innovation Group.

28 I'd like to start on page 2 of your testimony,



1 please.

2 A. This is the part that has been read into the
3 record previously, but not read into it this time.

4 Q. And that's -- that's fine. No problem.

5 About two-thirds of the way down you say,
6 "Additionally, the United States currently sells about
7 18% of its milk production as manufactured products in
8 export markets compared to about 5% in 2000."

9 Do you see that?

10 A. Yes.

11 Q. And that's correct?

12 A. Yes. I have -- for years and years, I have been
13 calculating the percentage of U.S. milk solids that are
14 exported and that are imported, mostly for the purpose of
15 getting the industry, particularly the dairy producer side
16 of the industry that has historically been more focused on
17 imports, to realize that that's yesterday's problem, and
18 expanding exports is the futures problem -- or challenge.

19 Q. Opportunity maybe?

20 A. And all of that, yes.

21 Q. You agree exports are fairly significant now of
22 dairy products?

23 A. That is correct.

24 Q. And what products are the most commonly exported
25 dairy products today?

26 A. The easiest way is to say that about -- and very
27 consistently throughout this entire period -- about 80% of
28 the milk solids that we export consist of what I call skim



1 milk ingredient product. That's milk -- that's skim milk
2 powder, nonfat dry milk, dry whey, whey protein
3 concentrate, whey protein isolates, lactose, the things
4 that basically don't have very much butterfat in them, and
5 they are ingredients that are used to reconstitute dairy
6 products in usually state-of-the-art plants in foreign
7 countries.

8 Q. And for farmer milk to be available for this
9 export market, it has to be Grade A; is that right?

10 A. I'm not sure. I -- I -- I'm not sure about that.
11 In fact, I -- I'm unable to answer it because I just don't
12 know.

13 Q. And is --

14 A. Most of the milk produced in this country is
15 Grade A, but I would assume that there are Grade B
16 products -- or Grade B milk could be used in products that
17 are exported. I'm not sure. A lot of other countries
18 don't demand that -- you know, that our products are PMO
19 compliant. But I don't know that. You would have to ask
20 some experts, say, in the U.S. Dairy Export Council.

21 Q. And what class of milk products are the largest
22 portion of exports?

23 A. I would assume that it's Class IV. We export
24 about 7% of our cheese production, which would, you know,
25 be Class III. But my guess is if -- I have never seen
26 a -- sort of an export Federal Order pool. It would be
27 interesting to see one of those to see what the
28 utilization is, but it would be mostly Class IV.



1 Q. And who are the U.S.'s biggest trading partners on
2 the export market?

3 A. Generally, and I can't give you an exact numerical
4 order, but it would be Mexico, China, Japan, South Korea.

5 Q. And who are the U.S.'s biggest competitors on the
6 export market?

7 A. The European Union, now 27 countries, that
8 basically export kind of as a block in terms of their
9 export policies, and New Zealand, sort of secondarily
10 Australia, maybe Argentina. But it's basically the EU and
11 New Zealand. They are numbers one and two; we are number
12 three in volume.

13 Q. And you'd agree that the export market is a
14 meaningfully larger portion of milk production sales now
15 than it was in 2000?

16 A. Yes. My calculations are the volume of milk
17 solids, although a different mix of fat and skim, the
18 volume of milk solids that goes to the export market,
19 particularly in the last two years when we hit that high
20 of 18%, it's down a bit this year with -- but the volume
21 of -- during those two years, I -- my -- I estimate we
22 exported more milk solids than we consumed milk solids
23 domestically in fluid milk products.

24 Q. Well, thank you for indulging my interests in the
25 export market.

26 A. Certainly.

27 Q. I'd like to talk a little bit about your thoughts
28 on just the theory behind pricing Class I in FMMOs.



1 So is it NMPF's position that Class I should
2 always be priced off of both Class III and IV?

3 A. We're kind of taking our page from USDA. As I
4 have testified many times, we support the Federal Order
5 program. We support the product price formulas, but we
6 think that they needed to be updated, because so many of
7 them were kind of fixed in place with fixed numbers, you
8 know, fixed skim milk component composition factors, fixed
9 Class I differentials, the assumption that barrel cheese
10 was, you know, block cheese in sort of a barrel's
11 clothing, so to speak. Those things needed to be changed
12 because the industry is changing, and in order for the
13 Federal Order system to continue to be effective and
14 functional, which we really want it to be, that those
15 things need to change.

16 With respect to the Class I mover, simply because
17 it was so flexible, unlike so many of these other things
18 that had a fixed differential -- fixed coefficients in
19 them, we think USDA and to use the colloquial -- USDA got
20 it right the first time in terms of the Class I mover, and
21 all of those factors that I quoted from the Federal Order
22 decision on page -- basically page 6 and spilling over
23 to -- no, on page 4 going over to page 5 -- all of those
24 things that I quoted I think still apply, and in some
25 cases even more so.

26 So that's one area where we felt USDA got it right
27 the first time. Let's go -- and we deviated from that
28 with the best of intentions. It turned out,



1 unfortunately, not to work out very well for dairy
2 farmers, and therefore, we're saying, let's go back to
3 what -- you know, what we -- what was right in the first
4 place. That's our position on that one.

5 Q. Okay. I want to make sure I tracked the answer to
6 my question in that.

7 So it is NMPF's position that, yes, Class I should
8 always be priced off of both Class III and IV?

9 A. Yes. Yes.

10 Q. And is the only reason NMPF believes that, because
11 it was USDA's prior policy, or what are the reasons why
12 NMPF today believes that Class I should be priced off the
13 both Class III and IV?

14 A. Well, actually, our belief that Class I should be
15 priced off of manufacturing classes goes way beyond --
16 it's much earlier than Federal Order Reform, back when we
17 just had the MW. The -- it's our understanding that a
18 basic feature of the Federal Order formula is that a
19 certain distance needs to be maintained between Class I
20 prices above the manufacturing prices, especially with
21 Advanced Class I prices that processors definitely like,
22 and we support. That gives rise to the potential for
23 price inversions, and even more so with Class I
24 utilizations dropping.

25 Q. So why does there need to be a certain distance
26 between the Class I price and the manufacturing classes?

27 A. Basically for all the reasons that USDA specified
28 in -- in Federal Order Reform. I basically couldn't have



1 said it better myself. That, you know, to prevent class
2 price inversions, to prevent changes in demand for one --
3 you know, one type of dairy product that would be Class --
4 priced off of say Class IV, from being impacted by drops
5 in, you know, supply/demand conditions for Class IV.

6 Again, on page 4, with the series of quotes that I
7 sort of put together with -- over several pages of the
8 decision, with some elisions and insertions, I thought
9 that was probably as good a summary of the reasons that
10 USDA put forth back in 1999 for choosing the higher-of
11 Class I mover, and we basically believe that those still
12 apply.

13 Q. And to the extent that market conditions change,
14 do you think those reasons should change?

15 A. The market conditions that are changing seem to --
16 as far as they affect the Class I mover, seems to be
17 increasing volatility. And -- and because addressing
18 Class I volatility and its -- its manifestation in
19 depooling, we think the way the market is changed, unlike
20 in some of the other provisions in our proposals where it
21 requires a change in the Federal Order pricing provisions
22 to keep them updated, we think that the changes in market
23 conditions are actually making it more pertinent to -- for
24 the mover to be the higher-of Class I and Class II and
25 Class III and Class IV.

26 Q. So it's your position that the Class I minimum
27 price always has to be set above both manufacturing class
28 prices?



1 A. To the extent possible. That often -- with
2 advanced pricing, Class I pricing, that does not always
3 happen.

4 Q. And so --

5 A. But --

6 Q. I'm sorry. Go ahead.

7 A. Yeah. But not necessarily always above each one,
8 but above the highest possible -- the highest possible
9 one.

10 Q. And what about the frequency, does it need to be
11 above each one monthly, biannually, on average yearly?

12 A. Ideally it would be on a monthly basis that you
13 would have the -- we recognize that the average-of plus
14 \$0.74, or even an adjusted differential above the
15 average-of, would occasionally be, with some frequency,
16 above the higher-of. But nonetheless, the higher-of is
17 one that dairy farmers are most comfortable with, most
18 trusting of, and we think that would be -- you know, we
19 would be content to return to the higher-of as opposed to
20 something that was more complicated.

21 Q. And to the extent that setting the Class I minimum
22 price, would you -- would you agree it's supposed to
23 reflect the value of milk used for Class I purposes?

24 A. Can you repeat that question again?

25 Q. Is the Class I minimum price supposed to reflect
26 the value of milk used for Class I purposes?

27 A. That's the -- that's the -- well, it's supposed
28 to -- the Class I price is supposed to be set at a level



1 that is sufficient to assure Class I processors of an
2 adequate supply of milk for fluid milk purposes.

3 Q. And from a consumer perspective, if the price of
4 cheese goes up, is the consumer going to find themselves
5 more willing to pay higher prices for their fluid milk?

6 A. Well, we had an extensive discussion on the
7 elasticity of demand for fluid milk earlier in this
8 hearing. Without -- without extensive volatility,
9 generally having a Class I price that is higher than the
10 manufacturing prices is pretty much a -- an important
11 feature of the operation of the entire Federal Order
12 program.

13 Q. And I'm not asking about the elasticity. I'm
14 saying in your experience, does a consumer find more value
15 in milk, fluid milk, when their cheese is more expensive?

16 A. Well, you are asking a question that could have
17 been asked at any time in the history of the Federal Order
18 program. And the Federal Order program has priced
19 Class I -- or attempted to price Class I above cheese
20 prices, to use your example, and the system seems to have
21 functioned for decades and decades under that principle.

22 Q. Okay. And I'm asking the question though now to
23 you, do you believe that's true today?

24 A. Well, if that is a -- if that is an outcome of the
25 way the Federal Order class pricing works, then that is
26 something that -- you know, that basically is a factor of
27 the system that we have lived with for a long time.

28 We do not discount or dismiss the importance of a



1 Class I mover that is more hedgeable than, you know, if --
2 if that is possible, without being too extensively at the
3 expense of all the other features of a Class I mover,
4 which is what we say has basically happened at this point.

5 We are not dismissing -- we would like to see some
6 data from those who wish to -- who claim they are hedging
7 Class I with the average-of to see what the extent of that
8 is, what a rough economic value of that ability is. We
9 have advanced, you know, our numbers about what we have --
10 we feel we have suffered in terms of losses so far under
11 the change.

12 But, yes. Your question, I'm not -- I'm aware
13 that it's -- I guess where I come down on that is, if that
14 is a feature, if the price changes and the price of cheese
15 affect the price of Class I, that is basically something
16 that is a factor in the operation of the Federal Order
17 program, and it has been since the beginning of the
18 program.

19 Q. So I'd like to ask a little bit more about this
20 issue of disorderly marketing. So you say disorder was
21 caused by the average-of because it resulted in a
22 reduction in revenue to producers, correct?

23 A. It was not because it -- well, that was part of
24 it. But the disorderly marketing that has happened
25 basically, in a sense, violated many of the features that
26 USDA clearly spelled out in Federal Order Reform.

27 Q. Are you saying that participants in the pool did
28 not comply with the regulations?



1 A. No. Let me read you this quote. "In some
2 markets, the use of simple or even weighted average of the
3 various manufacturing values may inhibit the ability of
4 Class I handlers to procure milk supplies in competition
5 with plants that make the higher value to the manufactured
6 product."

7 Earlier -- let me see. "Given" -- this is another
8 quote -- "given the separation of manufacturing milk into
9 two classes using the higher-of Class III and IV would,"
10 quote, "assure that shifts in demand for any one
11 manufactured product will not lower Class I prices."

12 So this would be an incident going back to your
13 cheese example, where shifts in Class IV demand, product
14 demand, would not necessarily affect the Class III price
15 and would not transmit the -- well, no, let me do the
16 opposite.

17 Shifts in the price of cheese reflected in the
18 price of Class III would not be transmitted to fluid milk
19 processors if Class IV price was the higher-of and was
20 setting the Class I price and was stable. Whereas cheese,
21 to use your example, may have changed price.

22 Q. But what you are saying then is the Class I price
23 wasn't high enough, correct? That that pricing signal
24 didn't transmit to a higher Class I minimum price?

25 A. When there's a separation of the Class III and
26 Class IV prices, that can bring the higher -- the
27 average-of down, you know, almost penny for penny, penny
28 for -- half penny for penny, whereas the higher-of has a



1 certain amount of stability, which was reflected in USDA's
2 statement that using the higher-of the two classes to move
3 Class I prices will help to reduce the volatility in milk
4 prices.

5 Q. Understood.

6 But, again, the results of that was lower producer
7 revenue, correct?

8 A. That was -- that was, yes. That was the case.

9 Q. And the results were not that fluid plants could
10 not acquire their supplies, correct?

11 A. As far as I know.

12 Q. So the disorderly marketing that you have
13 identified, it is not that fluid plants were unable to get
14 a sufficient amount of milk for their needs, correct? It
15 was that producers got paid less money?

16 A. Producers lost money, but there was depooling
17 and --

18 Q. The system is designed to --

19 MS. HANCOCK: Let him answer the question.

20 THE WITNESS: Yeah --

21 MS. VULIN: I am having a little bit of trouble,
22 though, getting direct answers to my questions with pretty
23 long answers unrelated.

24 THE WITNESS: Go ahead.

25 MS. VULIN: So I understand, but I would ask that
26 the witness try very hard to answer the question posed.

27 MS. HANCOCK: I think you're entitled to follow
28 up, but you got to let him finish his answer.



1 THE COURT: Yeah, I appreciate that.

2 THE WITNESS: I'll try to keep it short. Go ahead
3 and ask your question again.

4 BY MS. VULIN:

5 Q. So the issue that arose under the average-of was
6 not that there were insufficient supplies of milk for
7 fluid use, it was that producers made less money than they
8 would have made under a different calculation, correct?

9 A. There was an issue with producers receiving less
10 money, that they clearly identified as disorderly
11 marketing. I cannot speak to whether or not fluid milk
12 processors did not have a problem with attracting adequate
13 supplies.

14 We will have experts testifying on that with
15 Proposal -- in connection with Proposal 19.

16 Q. And then you identify depooling, correct?

17 A. Yes.

18 Q. Is depooling disorderly marketing?

19 A. In USDA's eyes, and ours, it is, yes. And we
20 agree with USDA's characterization of depooling and price
21 inversions as disorderly.

22 Q. So anytime a Class II, III, or IV handler chooses
23 not to pool their milk, that is disorderly marketing?

24 A. It is, yes. We do not dispute the right of
25 Class II, III, and IV handlers to depool when it's in
26 their interest. But we recognize that a system in which
27 the price relationships discourage depooling would be
28 preferable to one where depooling was -- was common.



1 Q. You would agree with me that Federal Milk
2 Marketing Orders can only require participation by Class I
3 fluid milk handlers, correct?

4 A. That is correct, yes.

5 Q. So the decision by a manufacturing Class I handler
6 to not pool is an inherent design of the system, correct?

7 A. It is an outcome of the system, yes.

8 Q. So it is your position, and NMPF's position, that
9 the FMMO system, as designed, inherently causes disorderly
10 marketing?

11 A. I cannot speak for National Milk on that issue.

12 Q. For yourself?

13 A. Can you repeat the question again?

14 Q. If the FMMO system is designed to allow
15 manufacturing class processors to not pool, and you
16 believe that any decision by a manufacturing class
17 processor to not pool is disorderly marketing, then it's
18 your position that the FMMO system, as designed, causes
19 disorderly marketing?

20 A. I wouldn't state quite so boldly.

21 Q. How would you state it?

22 A. I would state it that the Federal Order system is
23 probably correct in not requiring Class II, III, and IV
24 processors to be pooled. There are orders, such as
25 Order 1, where the depooling requirements are pretty
26 strict, and that happens, and that is fine. If those --
27 you know, if an individual Federal Order wishes to adopt
28 those provisions, that's fine for them. That's their



1 right. Most orders do not have strict, you know,
2 depooling, anti-depooling regulations, and as a result,
3 processors other than Class I can make those decisions.

4 And that's, you know, that's an inherent part of
5 the system. It would be good to the extent that price
6 formulas could be arranged to discourage the conditions,
7 minimize the conditions which permit depooling, which
8 would basically mean increasing the difference between
9 Class I prices and the manufacturing class prices so that
10 depooling would occur less frequently, that would be good.
11 But we're not prepared to judge the system as deliberately
12 encouraging depooling. That's -- that's not a
13 characterization I would use.

14 Q. So you said there are instances in which it is
15 rational for a manufacturing class handler to choose not
16 to pool, correct?

17 A. Of course. Yes.

18 Q. What are those?

19 A. That is when basically the processor would receive
20 more income from the market by depooling than they would
21 from the market with, you know, basically paying into the
22 pool.

23 Q. And would you agree with me that's an important
24 signal from the market that the industry should respond
25 to?

26 A. Could you define an important signal that the
27 industry should respond to?

28 Q. If the marketplace is telling processors that that



1 milk is more valuable if manufactured and sold outside of
2 the FMMO system, shouldn't processors respond to that?

3 A. Generally, it is in the interest of processors,
4 whether they are cooperative or not, to maximize their
5 income. That's -- that's the kind of system that
6 economists would -- would designate as a healthy industry.

7 Q. And are you familiar with what a 9(c) handler is?

8 A. I've heard the term, but I would need a
9 definition.

10 Q. A cooperative that is defined as a handler. Does
11 that sound familiar?

12 A. Yes, cooperatives are designed -- are designated
13 as handlers under the system.

14 Q. Are you aware if any cooperatives have chosen not
15 to pool their milk since the average-of was in place?

16 A. Yes.

17 Q. And so your position is that those cooperatives
18 contributed to disorderly marketing by choosing not to
19 pool their milk?

20 A. They responded to market signals in the interest
21 of their members, and they caused consternation in many
22 cases to other cooperatives that did not have that
23 opportunity because of where they sold their milk.

24 Q. And if we aim to peg the Class I minimum price
25 always above manufactured prices, aren't we disrupting
26 those external market signals that are telling the
27 marketplace that milk is more valuable in a manufacturing
28 plant outside of the system?



1 A. Can you state again the conditions you predicated
2 your statement on?

3 Q. So in an instance, in the circumstances in which
4 you agree it would be rational for a manufacturing class
5 processor to not pool their milk, where it is more
6 valuable being sold outside the FMMO system, do you -- do
7 you recall that premise?

8 A. Yes.

9 Q. So in that situation, if we are pegging the
10 Class I price above that manufacturing class price, aren't
11 we distorting the signals that the marketplace needs to
12 follow to know what the highest and best use of that milk
13 is?

14 A. No.

15 Q. Why not?

16 A. Because the system in which the class prices would
17 be set at appropriate levels, so that depooling was not a
18 rational decision, that would not cause a problem.
19 Processors, both proprietary and cooperatives, that pool
20 their milk in Federal Orders and find themselves
21 confronted by the circumstances in which it is rational
22 for them to depool, and pooling regulations of their
23 particular order do not prohibit it or discourage it, as
24 for example in Order 1, it is a rational decision for them
25 to depool. It's not their right to depool, in a sense, it
26 is their -- it is in their best interest to depool.

27 If the system and the price formulas and the
28 Federal Order pooling regulations were adopted to make it



1 difficult, more difficult let's say, to depool, that's
2 fine, too. I'm not -- I'm not -- I'm not specifying an
3 ideal Federal Order where depooling is a right or a
4 necessity. I think it is disorderly if there is
5 increasing depooling, even though it is a rational
6 decision by the depooling actors.

7 Q. So it is disorderly for a market to have a -- for
8 milk -- I'll start that again. Strike that.

9 You believe it is disorderly for the marketplace
10 to value milk at a higher value for a manufacturing use
11 than a Class I use?

12 A. It is disorderly if that happens on a regular
13 basis, yes. And we have several dairy farmers who have
14 testified and will testify that they consider depooling to
15 be disruptive and disorderly.

16 MS. VULIN: I still have a number of questions,
17 and I believe it might be time for a break.

18 THE COURT: Yes, I think so. Let's come back at
19 4:18.

20 (Whereupon, a break was taken.)

21 THE COURT: Let's reconvene. On the record.

22 Ms. Vulin, your witness.

23 MS. VULIN: Thank you, your Honor.

24 BY MS. VULIN:

25 Q. So you had talked a little bit earlier about
26 this -- this disparity, the spread between III and IV that
27 can develop, correct?

28 A. That's -- yes.



1 Q. And you describe that as price volatility; is that
2 right?

3 A. The price volatility would be the forces that
4 cause those two to diverge in unpredictable and sometimes
5 in -- in rapid and extreme fashion, that's -- that creates
6 the volatility.

7 Q. I think you described it as market volatility; is
8 that right?

9 A. Yes.

10 Q. And so what are the market conditions that drive
11 Class III and IV apart?

12 A. Basically, the supply and demand for Class III and
13 Class IV products, and how they intersect and how they may
14 differ.

15 Q. So does USDA regulate the supply and demand for
16 Class III and IV products?

17 A. No.

18 Q. Okay. So USDA can't control the conditions that
19 could lead to the spread between III and IV?

20 A. No.

21 Q. But you agree that it's -- or you maintain that
22 it's disorderly for Class III and IV to have significant
23 price diversion from each other?

24 A. That contributes to disorderly marketing, yes.

25 Q. That is disorderly marketing or contributes to
26 disorderly marketing?

27 A. Well, depends on how you define disorderly
28 marketing. But, okay, let's say it is disorderly



1 marketing.

2 Q. Is that how you --

3 A. I would defer to USDA for the definition of
4 disorderly marketing because that's -- that's their key
5 term.

6 Q. What -- how do you believe USDA defines disorderly
7 marketing?

8 A. I don't know. But --

9 Q. And you would agree that raising the Class I price
10 doesn't change the supply and demand market conditions
11 that lead to the spread between III and IV, correct?

12 A. Are you asking if Class I demand does not?

13 Q. Does raising the Class I minimum price change the
14 supply and demand factors or market conditions that drive
15 III and IV apart?

16 A. Generally. No.

17 Q. Do you believe that USDA should interfere with the
18 supply and demand market conditions that drive III and IV
19 apart?

20 A. I don't think USDA has the authority to do so.

21 Q. So this disparity between III and IV, that was the
22 source of the losses that you have described in 2020 that
23 producers experienced, correct?

24 A. Correct.

25 Q. And if we could go, I believe it's page 6 of your
26 testimony where you say that those losses as of July were
27 \$941.1 million, correct?

28 A. Correct.



1 Q. And how did you calculate that amount?

2 A. That's laid out in Exhibit NMPF-30A, which was
3 Exhibit -- was it 230? Those are the detail calculations
4 behind that. If you want me to go through that.

5 Q. No. Nope. Just wanted to know the source. Thank
6 you.

7 A. That's the -- that's the source.

8 Q. So this is \$941 million that you believe producers
9 should have received under the FMMOs?

10 A. It is an arithmetic calculation, not an economic
11 analysis.

12 Q. You believe that -- are you saying that producers
13 would have had \$941 million more dollars in their pockets
14 had the formula not been changed?

15 A. As an economist, if I were doing an economic
16 analysis of particularly the losses in the second half of
17 2020, I would have factored in a supply response where
18 producers may have produced less milk and a lower price
19 may have encouraged additional Class I consumption.

20 Dr. Scott Brown will be here sometime in the near
21 future to present an economic analysis of our proposals.
22 But this is, again, just an arithmetic. And we have seen
23 a lot of arithmetic calculations, which consists of simply
24 plugging the formula changes without taking into account
25 any economic adjustments in supply and demand.

26 Q. But when I look at your Figure 4 on page 7, it is
27 entitled cumulative producer losses due to change in
28 Class I movers. So you are saying that is inaccurate



1 those were not producer losses?

2 A. Those are arithmetic producer losses as I
3 identified in the -- in the text.

4 Q. And so then my question is, if that \$941 million
5 did not go to farmers, where did it go?

6 A. This was the -- basically the calculated
7 arithmetic losses in this sheet, which is simply that
8 chart graphs the far right column on page 2. That's those
9 numbers.

10 Q. And if those are losses to farmers, then they
11 would have been gains somewhere else, correct?

12 A. The implication is those are gains that accrued to
13 Class I processors, in the sense that these are arithmetic
14 calculations of monthly losses, they would have been --
15 that because of the nature of the Class I mover and the
16 change, those would have been, by your characterization,
17 gains to the Class I processors, savings to them.

18 Q. And had the formula not been changed, Class I
19 processors would have owed \$941 million more to the pool
20 than they would have otherwise?

21 A. In that same arithmetic analysis -- analytical
22 framework, yes.

23 Q. And where would Class I processors have gotten
24 nearly a billion dollars to put into the pool during this
25 time period?

26 A. They would have gotten that from -- basically from
27 the marketplace. They -- they would have had -- had the
28 Class I mover not been changed and continued to be the



1 higher-of throughout this whole period, that revenue would
2 have been forthcoming from the market and would have been
3 paid into pools, just like it had been from January 2000
4 though up through April 2029 -- 2019.

5 Q. So the billion dollars would have come from
6 consumers, ultimately?

7 A. Yes.

8 Q. And I would like to talk about the pandemic market
9 volatility assistance program, the PMVAP, correct? And
10 I'll probably get that acronym mixed up at some point, so
11 please do correct me.

12 You said on page 6 that -- it's at the second full
13 paragraph up from the bottom, the second to the last
14 sentence you said, "NMPF greatly appreciates the
15 Secretary's partial compensation of these losses through
16 the two rounds of the Pandemic Market Volatility
17 Assistance Program."

18 Do you see that?

19 A. Yes.

20 Q. And so were these PMVAP payments meant to
21 compensate or reimburse farmers for their lost revenue due
22 to the base Class I skim price using the average-of
23 formula instead of the higher-of?

24 A. Partly compensate.

25 Q. But the purpose was to compensate farmers because
26 of the change in the base Class I skim formula?

27 A. That's my understanding.

28 Q. I -- I had thought those payments were to assist



1 farmers because of the impacts of the pandemic, not
2 because of the change in the formula.

3 A. They were due to the pandemic market volatility,
4 in other words, the volatility created by the pandemic
5 which was, in terms of the severe underperformance of the
6 current mover compared to the higher-of, was due to a
7 great extent to the extensive Farmers to Families Food
8 Box -- as I recall, Farmers to Family Food Box Program
9 that -- that basically purchased very large quantities of
10 cheese, compared to Class IV products, and created that --
11 that -- that severe separation of Class III and Class IV
12 prices.

13 MS. VULIN: Your Honor, I would like to introduce
14 an exhibit, and I have copies for everyone here. We'll
15 get them passed out.

16 May I approach the witness with a copy, your
17 Honor?

18 THE COURT: Yes, you may.

19 MS. VULIN: And do I give you your copy or does
20 that come from the official copy?

21 THE COURT: Either way. I think it comes from
22 sometimes one way, sometimes the other. Make sure counsel
23 for this witness gets one, though.

24 MS. VULIN: And the official USDA copy is
25 single-sided, but everyone else has a double-sided copy.

26 This is a document with the USDA logo at the top,
27 entitled Pandemic Market Volatility Assistance Program for
28 Dairy, and at the bottom has the date of November 2021.



1 And I'd ask that it be marked Exhibit 230, if I have
2 counted correctly.

3 THE COURT: No, I have it 231.

4 MS. VULIN: 231.

5 THE COURT: Yes. So this exhibit will be marked.
6 231 for identification.

7 (Thereafter, Exhibit Number 231 was marked
8 for identification.)

9 BY MS. VULIN:

10 Q. Dr. Vitaliano, do you recognize this document?

11 A. Yes. I have seen it.

12 Q. What is it?

13 A. It is a fact sheet the USDA gave out by -- on the
14 PMVAP program.

15 Q. And where on this fact sheet does it identify that
16 the PMVAP is in response to the base Class I skim mover
17 price?

18 A. Well, take a look at the second bullet: "USDA
19 payments" -- "the Pandemic Market Volatility Assistance
20 Program provides" -- the second bullet point -- "USDA
21 payments to dairy farmers through their handlers and
22 cooperatives based on fluid milk sales from July through
23 December 2020."

24 Based on fluid milk sales. Not on milk sales.
25 Fluid milk sales.

26 Q. And how does that specify that it's based on the
27 base Class I skim formula?

28 A. You would have to ask USDA which administered the



1 program.

2 Q. And was this assistance provided only to producers
3 with pooled milk?

4 A. That's my understanding. Yes.

5 Q. Do you know how USDA determined the amount of milk
6 eligible for the program?

7 A. I remember the limits they placed on it, but I
8 think it was based on producer shipments of milk that were
9 pooled on Federal Orders.

10 Q. You said the limits. What were those?

11 A. There were limits on 5 billion -- 5 million pounds
12 for the six-month period, and no payments were made of
13 that. I believe that did not pay 100% of the amount below
14 5 million pounds. And there were some adjusted gross
15 income limits of, as I recall, of \$900,000. That's pretty
16 standard for a lot of assistance programs, direct payments
17 programs.

18 Q. So you said the six months. Are you talking about
19 July to December 2020?

20 A. That's correct.

21 Q. So the program was meant to provide assistance to
22 farmers based on fluid milk sales for that six-month
23 period, correct?

24 A. That's correct.

25 Q. But the average-of base Class I skim formula was
26 in place for multiple years; isn't that right?

27 A. At that time it was in place for a little over one
28 year.



1 Q. By November 2021.

2 A. Where do you see 2021 on here?

3 Q. In the green bar at the bottom.

4 A. That was the date of -- that this fact sheet was
5 published.

6 Q. So the -- the average-of would have been in place
7 for two years, correct? Approximately?

8 A. A year and a half. Yeah. Let's call it two
9 years.

10 Q. Okay.

11 A. No, two and a half years.

12 Q. So USDA did not provide compensation to farmers
13 for the entire period the average-of was in place,
14 correct?

15 A. No. They only -- they only made compensation for
16 the July to December 2020 period when the two movers
17 seriously -- when the current mover seriously
18 underperformed the previous higher-of mover.

19 And I'm not aware, I'd have to check my records,
20 whether or not milk prices overall were particularly lower
21 during that period compared to -- I know in 2021 milk
22 prices were significantly low.

23 And so my -- my guess is that the July through
24 December period was distinguished as a hardship period for
25 dairy farmers, particularly because of the
26 underperformance of the recently implemented Class I mover
27 compared to its predecessor.

28 Q. And what caused the mover to underperform in your



1 opinion?

2 A. The --

3 Q. Actually, I have a better question. Let me
4 rephrase that if I may.

5 What were market forces that drove Class III and
6 IV apart during this six-month period?

7 A. They were, to a great extent, pandemic related,
8 through the Family -- Families -- Farmers to Families Food
9 Box Program and its extensive purchases of cheese.

10 Q. So the base Class I skim formula in place did not
11 cause disorderly marketing, it's that it didn't work as
12 intended as the result of unusual market circumstances?

13 A. Yeah. Right. The change in the movers resulted
14 in the loss given the -- basically USDA's other pandemic
15 activities.

16 Q. And you said that the PMVAP only partially
17 reimbursed producers for their losses under the average-of
18 formula, correct?

19 A. That's correct.

20 Q. What portion of the their \$941 million losses did
21 the PMVAP reimburse?

22 A. In the aggregate, I believe that the -- the number
23 here is roughly 360 million. In the context of the
24 calculations I show in Exhibit NMPF-30A is about
25 1 billion, arithmetically calculated. That would make the
26 PMVAP paying in the aggregate a little over a third,
27 compensating a little over a third of the losses for
28 individual producers, particularly large producers subject



1 to the payment limitations. It was a much smaller
2 proportion of their actual losses.

3 Q. There was a second round of PVMA- --

4 A. Yeah, I don't know. The numbers -- the round
5 numbers I recall is 300 for the first go round and then
6 another hundred. I don't know whether the 360 -- you may
7 know the timing of this. I think the second round, was it
8 after November 2021 or before?

9 Q. We're up here to hear your testimony on that.

10 A. Yeah. No, I don't know whether that second round
11 is in these numbers.

12 Q. Okay. And the cumulative losses that you
13 detailed, you said you explicitly excluded the PMVAP
14 payments, correct?

15 A. That's correct.

16 Q. And you talked about a cap on those.

17 So the cap means that small producers would have
18 likely benefitted to a greater degree than large producers
19 under the PMVAP payments, correct?

20 A. Yes.

21 Q. And looking again at your Figure 1 on page 7,
22 these are cumulative producer losses --

23 A. That's correct.

24 Q. -- because of the change, correct?

25 A. That's correct.

26 Q. So despite this chart detailing, you know, very
27 negative numbers after May of 2020, the base Class I skim
28 price formula did not always generate less revenue for



1 producers than the higher-of would have, correct?

2 A. No. If you look at the right-hand column on
3 page 2 of Exhibit NMPF-30A, you will see some of those
4 numbers are positive and some of them are negative.

5 If you look at the July through December 2020
6 period, you will see very large negative numbers. You
7 will never see a number in here larger than, roughly,
8 25 million.

9 So, for example, if you look at October '21 where
10 the current mover was \$0.73 above the higher-of, that's
11 one penny short of its maximum possible, that generated
12 \$25.5 million. That's kind of the maximum -- you know,
13 the volumes of Class I skim milk change monthly in here.
14 But basically you will not see a number in that right-hand
15 column that's much over 25 million. You will see quite a
16 few negative numbers that are quite a bit lower than a
17 negative 25 million.

18 Q. And there are multiple months, it looks like even
19 the first six, that the average-of was in place that it
20 generated higher producer revenue than the higher-of would
21 have, correct?

22 A. Right. The first year after it was in place, I
23 was thinking, hey, we made a good deal here. That was
24 short lived.

25 Q. Did NMPF think it was disorderly when the formula
26 generated higher returns than intended for farmers?

27 A. The differences were not that great. I don't
28 recall huge discussion on it. The discussion on the



1 change happened obviously in the second half of 2020.

2 Q. So it's only if prices are negative that you
3 believe it's disorderly marketing?

4 A. That is an attention-catching feature of dairy
5 markets in the minds of dairy farmers, yes.

6 Q. That's not quite an answer to my question.

7 Is it only when the formula produces less revenue
8 than the higher-of that you consider it disorderly?

9 A. The instances in which the revenue from the change
10 was positive were relatively modest and not disorderly,
11 whereas the huge drop from -- in the second half of 2020,
12 that's of a magnitude that I would characterize as
13 disorderly.

14 The subsequent plateauing at the lower level from
15 roughly the end of 2020 until the middle of 2022 was --
16 kind of mirrored the first several months where it was a
17 modest recovery, but would not -- I would not characterize
18 the times in which prices were increasing as disorderly,
19 but only those periods that seem to be built into the
20 current mover. When the difference was negative, it
21 seemed to generate much more accelerated changes to the
22 downside than to the upside.

23 Q. And this inherent kind of structural bias that you
24 have talked about, FMMOs set minimum prices, correct?

25 A. That's correct.

26 Q. They are not meant to be market-clearing, correct,
27 for Class I?

28 A. Yes. They are designed to be minimum prices.



1 Q. And it is the cardinal sin of minimum prices to
2 set them too high, correct?

3 A. That is a basic feature of every description I
4 have seen from USDA of the concept of minimum prices.

5 Q. Do you agree?

6 A. Do not set them too high to guarantee that every
7 processor, manufacturer can make a profit.

8 Q. Same is true for --

9 A. Make Allowances.

10 Q. Yeah. But the same is true here for producer
11 prices, correct?

12 A. That's correct.

13 Q. And so when you are looking at this asymmetrical
14 risk, isn't it right that there is an upper limit, as you
15 describe it, but not a lower limit, consistent with
16 ensuring that prices do not get too far above a minimum,
17 correct?

18 A. Can you repeat that question again? I'm not sure
19 I fully understood it.

20 Q. If you are trying to ensure a minimum price,
21 aren't you better off ensuring that the price does not go
22 too high as opposed to ensuring that the price does not go
23 too low?

24 A. Yes, but looking at Figure 1, it's a little bit
25 difficult to -- to intuit or to conclude that the price
26 has been set too high.

27 Q. And would you agree that a goal of the system
28 should be price stability?



1 A. Price stability in -- in terms of it being the
2 opposite of disorderly marketing. You cannot make dairy
3 prices stop moving. You know, price -- price volatility,
4 price changes is an inherent feature of a commodity
5 industry like dairy, and could be even be interpreted as
6 kind of a healthy sign. But it has -- there are extremes.

7 Q. And the proposed change here in NMPF Proposal 13,
8 what impact will that have on minimum prices for Class IV?

9 A. What impact will going back to the higher-of have
10 on Class IV?

11 Q. Yes.

12 A. I'm not sure it will have any impact.

13 Q. How about --

14 A. Class IV is being moved by forces relative to the
15 markets for butter and nonfat dry milk and other things.
16 I'm not sure that Class I supply and demand and price
17 issues really affect Class IV prices that much. It's kind
18 of the opposite.

19 Q. Thank you. I want to just to make sure I
20 understand that.

21 So Class I supply and demand prices don't impact
22 Class IV supply and demand market forces, correct?

23 A. Well, as an economist, if -- if Class IV prices
24 were subject to, you know, some extreme on the upside,
25 while usually those episodes don't last too long. But
26 anything that would have an impact on Class I demand,
27 given the inelasticity of demand for Class I, that's
28 pretty small effect.



1 But to -- but, theoretically, yes, if there's
2 something that -- about Class IV prices that moved Class I
3 prices up, and effect had -- whatever effect it would have
4 on Class I demand, much of that lost Class I sales would
5 temporarily probably fall into Class IV.

6 Q. But the change in the base Class I skim formula
7 doesn't have a direct impact on the minimum Class IV
8 classified price, correct?

9 A. I don't think the higher-of versus the average-of
10 would have that much of an effect -- impact.

11 Q. I'm sorry.

12 A. No.

13 Q. It wouldn't impact Class III minimum prices
14 either, correct?

15 A. Probably not. I'm not saying zero impact. But a
16 modest impact. The causation is a little different the
17 other way. Class III and Class IV affect Class I prices.

18 Q. And it wouldn't have a direct impact on the
19 Class II minimum price either, right?

20 A. What would not have a --

21 Q. Adopting Proposal 13.

22 A. It would have the same effect or non-effect as it
23 has on Class IV.

24 Q. So the only direct impact it has on minimum
25 classified pricing is to raise the Class I minimum price,
26 right?

27 A. Yes, on average. Historically, the change in
28 movers was not supposed to change the long-run difference



1 between the two -- the two movers. They were to be
2 revenue neutral, and we expected that was the case.

3 It turned out that the market churned up its level
4 of volatility, and that exploited that asymmetric risk
5 that we would just soon have been happy to see not happen.

6 Q. And I believe in your testimony you said that
7 these changes that you propose -- I should say this change
8 in Proposal 13 will only have a modest positive impact on
9 the average price of milk received by producers; is that
10 right?

11 A. That's correct.

12 Q. But it's not going to be a modest negative impact
13 on Class I, correct?

14 A. I'm not sure I fully understand the question. The
15 modest impact on -- on fluid milk prices at retail is
16 what -- is that what -- can you repeat that --

17 Q. I'll start that again.

18 A. -- part of the question?

19 Q. Yeah. So the change, adopting Proposal 13, will
20 only have a modest positive impact on the average price of
21 milk received by most small -- by dairy farmers; is that
22 right?

23 A. In general, yeah. If you look at Figure 1, you
24 will see that except for that one period in the second
25 half of 2020, which, as I testified, we do not
26 characterize as a once-only negative impact from the
27 change in Class I movers, but it is -- will undoubtedly be
28 the largest single episode of negative impact from the



1 change in movers. The others is more a -- sort of a
2 continuing ratcheting down, ratcheting up the cumulative
3 losses.

4 Q. But in terms of the money that producers will make
5 from the change, you are saying it will just be a modest
6 increase in the --

7 A. Over a span of time. But as Figure 1
8 demonstrates, the bias toward lower -- toward losses will
9 accumulate over time. We would expect that this -- if you
10 could extend this chart five years in the future, you
11 would see that line heading down below a billion dollars.
12 I would not expect to see it increase significantly, and I
13 would not expect -- under the current Class I mover, I
14 would never expect it to go back to zero.

15 Q. And so what do you estimate the impact is on
16 Class I in moving from the current formula to your
17 Proposal 13 on the price that Class I will have to pay
18 their obligation to the pool?

19 A. I would be surprised to find in ten years or so
20 that market researchers would be able to detect a
21 significant change in the Class I sales from this change
22 in movers. Class I sales are being affected by much
23 bigger forces than the price of -- the price of milk. The
24 Class I price of milk.

25 Q. So if the impact is only modest on producers and,
26 as you claim, modest on processors, why are we here?

27 A. Because Class -- the change in Class I mover was
28 disruptive from a producer standpoint. I mean, you are



1 asking me to say, okay, is a billion dollars of loss a
2 minor thing for producers given the amount of money that
3 goes -- goes to producers overall? Which is, you know, in
4 the -- you know, what, 30 or \$40 billion per year? Just
5 talk to any dairy farmer and see whether they found the --
6 you know, the change in the movers to be a problem. We
7 have heard some testimony at this hearing from dairy
8 farmers to that effect. We're going to probably hear some
9 more.

10 Q. So it's not a modest impact on farmers?

11 A. Not in their -- yeah. Not -- not from their
12 perspective, and not from our perspective, either.

13 But in the grand scheme of things, I would expect,
14 you know, after weathering -- because the big drop in the
15 second half of 2020 will never be forgotten. That has
16 permanently -- that is indelibly imprinted on dairy
17 farmers. And -- but from now on, I would expect to be --
18 you know, to see a more modest but -- but steadily
19 downward track in the cumulative losses, just like you see
20 in the second -- the second more recent part of Figure 1.

21 Q. But the drop you are describing that no one will
22 forget was partially reimbursed by taxpayers, correct?

23 A. Partially reimbursed, yes.

24 Q. I would like to talk for a moment about hedging.
25 You had mentioned that earlier.

26 My understanding is that NMPF does not find the
27 need by Class I processors to hedge as warranting keeping
28 the average-of or some variation proposed by MIG or IDFA?



1 A. I would say that achieving multiple objectives
2 through the Federal Order program, such as -- and please
3 note that National Milk first introduced at this hearing
4 the notion of the importance of hedging and risk
5 management in terms of how that can be accommodated in the
6 Federal Order pricing formulas by our suggestion of a
7 12-month implementation delay for our Proposal Number 1.
8 And likewise, when we talked with the -- with the
9 processors in the summer of 2017, we took totally
10 seriously the processors' express desire to be able to
11 better hedge Class I. There was no bad faith in that at
12 all.

13 But it has turned out that in the case of
14 Proposal 1, we found that there were -- that taking risk
15 management factors into account is worth, let's call it
16 some -- some level of deviation from strict Federal Order,
17 you know, pricing regulations. The way it was explained
18 to me is that if USDA makes a decision that a current
19 feature of Federal Orders needs to be changed, they are
20 under almost an obligation to change it as quickly as
21 possible.

22 We're trying to introduce some nuances that if it
23 is not too great an imposition on the normal order of
24 business in Federal Orders to accommodate the growing
25 importance of risk management, then it would be
26 appropriate to do so.

27 In the case of the -- the importance of hedging
28 some Class I milk by processors, the costs -- we were more



1 than willing to countenance the original change and to
2 keep alive a modification of the average-of base movers to
3 preserve that hedging as long as we possibly could have.

4 But in the end, our decision-making body
5 determined that it was -- that the importance -- the
6 downside cost of continuing an average-of base mover of
7 whatever form was -- did not outweigh the -- you know, the
8 problems that it caused and would likely continue to cause
9 in the future.

10 Q. So despite your conclusion -- and this is -- I am
11 quoting you here -- that the changes proposed by NMPF will
12 have a modest positive impact on the average price of
13 milk --

14 A. Yes.

15 Q. -- you still believe that modest positive impact
16 does not outweigh the need for declining Class I to try
17 and mitigate its risks on the market?

18 A. Yes. And because we -- we do not believe, as
19 economists, and we have had testimony to that effect, that
20 the price of Class I milk is not a primary causative
21 factor in the decline of Class I sales. We are fully
22 aware of the decline in Class I sales and how long that
23 has gone on and the various factors that are causing it.
24 We had an expert witness testify to that effect.

25 So on balance, life is full of trade-offs, and
26 this is one trade-off that our decision-makers have
27 decided, you know, dictates that we go back to the
28 higher-of.



1 Q. And what efforts did your decision-makers
2 undertake to determine the scope of risk management
3 activities that fluid milk processors are using?

4 A. Well, I'm not sure that it was their
5 responsibility to determine that. That it was, instead --
6 because these discussions have been going on for a while.
7 We initiated them back in late 2020. We have been open to
8 receiving any information on the importance and the
9 growing -- the growing amount and the economic value to
10 processors of having that risk management tool. We have
11 not seen very much information on that.

12 Q. If you did receive information on that, would you
13 support Proposals 14 or 15?

14 A. I cannot -- I cannot tell you that we would change
15 our position.

16 Q. Even if you received information -- I'm sorry, did
17 you --

18 A. If you have information, we would be happy to
19 receive it.

20 Q. But even if you received it, you don't believe
21 that would change your position on these proposals?

22 A. Probably not, because it's not my decision to make
23 that change.

24 MS. VULIN: Nothing further. Thank you.

25 THE COURT: Questions of this witness?

26 MR. ROSENBAUM: Your Honor, it is almost
27 5 o'clock. It is three minutes to 5:00. I think we --

28 THE COURT: Can't get done in three minutes, huh?



1 MR. ROSENBAUM: Well, it depends how many
2 admissions Dr. Vitaliano is willing to make in three
3 minutes, but I think -- I think that based on past
4 history, I don't think it's going to work.

5 THE WITNESS: I think you're right.

6 THE COURT: I would concur with that.

7 Let's remember to do that at the end, unless we
8 want to make use of the three minutes.

9 MS. VULIN: That's what I thought. Perhaps -- so
10 if the witness has testified to Exhibit 231, I would like
11 to move it into admission in the record.

12 THE COURT: Objections?

13 MR. HILL: It's a USDA document.

14 THE COURT: It is. I think it's
15 self-authenticating. The witness basically authenticated
16 it.

17 MR. HILL: You can take notice of it.

18 THE COURT: I think I could. So Exhibit 231 is
19 admitted into the record.

20 MS. VULIN: Thank you.

21 (Thereafter, Exhibit Number 231 was received
22 into evidence.)

23 THE COURT: You're welcome.

24 All right. Yeah. Let's -- thank you,
25 Mr. Rosenbaum.

26 We're doing so well, I got excited about it. It's
27 now is a good I think we should wrap for the day.

28 Anything we need to take up on or off the record



1 before we leave? What witnesses are up tomorrow? Do we
2 need any discussion or can you just --

3 MS. HANCOCK: I think we have already done it,
4 your Honor.

5 THE COURT: Yeah, I think so, too. Bring us up to
6 date.

7 MS. HANCOCK: Your Honor, tomorrow we will
8 complete Dr. Vitaliano's testimony. Rob Vandenheuvel will
9 provide rebuttal testimony on the proposals from Select.

10 We will proceed -- and it will not be in this
11 order, but we will have Craig Alexander, Chris Hoeger,
12 Sarah Stevens, and that is all the witnesses that we're
13 going to have available tomorrow. If we are ambitious, we
14 might finish a little bit early, but we have checked with
15 all the parties, and as we understand it, no one has
16 anybody else available for tomorrow. So we'll finish the
17 day wherever we land with those witnesses.

18 THE COURT: Very well. We were going to go to
19 5:00 if necessary, right?

20 MS. HANCOCK: Oh, did I say Sarah Stevens? I
21 meant Sarah Dorland. Jeez, I don't even know where
22 Stevens came from.

23 THE COURT: All right. We're adjourned. See
24 everyone tomorrow at 8:00.

25 (Whereupon, the proceedings concluded.)

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1 STATE OF CALIFORNIA)
) SS
 2 COUNTY OF FRESNO)

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4 I, MYRA A. PISH, Certified Shorthand Reporter, do
 5 hereby certify that the foregoing pages comprise a full,
 6 true and correct transcript of my shorthand notes, and a
 7 full, true and correct statement of the proceedings held
 8 at the time and place heretofore stated.

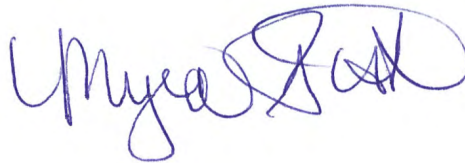
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10 DATED: November 6, 2023

11 FRESNO, CALIFORNIA

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