

Before the United States Department of Agriculture
Agricultural Marketing Service

In the Matter of Milk in California; 7 CFR Part 1051
Notice of Hearing on a Proposal to Docket No.: AO-15-0071;
Establish a Federal Milk Marketing Order AMS-DA-14-0095

Clovis, California, September 22, 2015

Testimony of Jose T. Maldonado

My name is J.T. Maldonado of Marquez Brothers International, Inc. (MBI) based in Hanford, CA.

Marquez Brothers International, Inc.’s primary business focus is in the manufacturing and distribution of Hispanic cheese products. Since the foundation of Marquez Brothers in 1981, we have grown our business as demand for our cheese products has expanded. Our particular cheese market demand is highly price sensitive and very competitive. We are in the business of manufacturing Hispanic style specialty products such as Queso Fresco cheese, creams and drinkable style yogurts. The manufacturing of these specialty cheese products are highly labor intensive, lacking the economies of scale compared to large cheddar cheese automated plants that produce 40lb blocks. Contrary to the testimony of a previous witness, Hispanic variety cheese products manufactured in California do not enjoy any competitive advantage with the same products manufactured closer to main population centers of the United States. My testimony will present more detail of the cost challenges Hispanic cheesemakers face primarily because we are located in California.

With regard to the value of whey to plants of our size and product mix, Marquez Brothers reluctantly invested in a whey processing plant in 2004 in order to reduce the cost of disposing of the whey. This investment cost was more than any other investment Marquez Brothers had ever made. The investment decision was driven primarily by the rising environmental concerns with whey disposal and the cost of whey disposal, not the projected financial return. Furthermore, Marquez Brothers is primarily in the cheese business and investing in a whey plant was a necessary but unwanted investment decision outside of our core competencies.

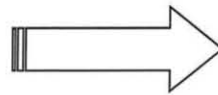
With respect to making whey-processing investments within the industry, it is generally acknowledged that a plant must produce at least 1.2 million pounds of whey per day in order to reach the economies of scale necessary for a whey plant investment to break-even. Adoption of any sizeable milk price increase will result in not only small/medium size cheese manufacturers not able to recoup their investment but the extinction of California’s small/medium size cheese manufacturers.

In California, cheese manufacturers have experienced regulated price increases which have presented challenges to small and mid-sized cheese manufacturing companies, specifically, because of the limit on the value that can be derived from the by-products side of the cheese manufacturing. For example:

- Input: A cheese plant will have milk input at approximately 12.3% total solids, see Table 1.
- Output: From the milk’s 12.3% of total solids, approximately 48% of these solids stay with the cheese and 52% go with the whey, see table 2, Graph 1 and 2.

Input (Table 1)

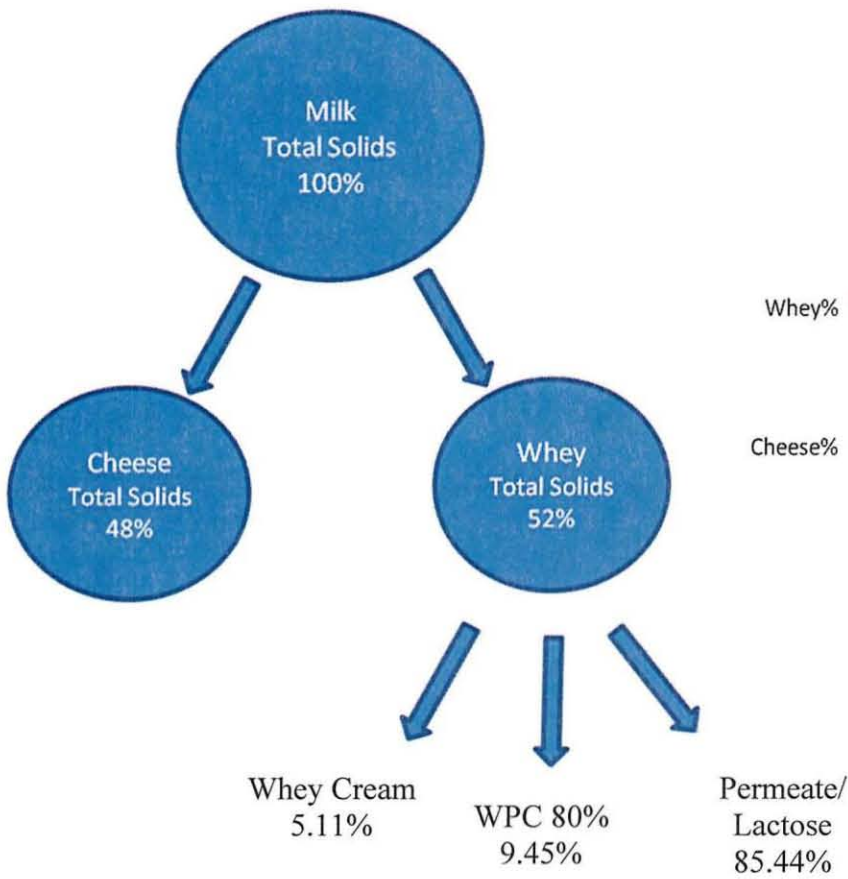
Name	Cheese%
BF	3.50%
SNF	8.80%
Total Milk	12.30%



Output (Table 2)

Name	Cheese%	Whey%	Total
BF	3.15%	0.35%	3.50%
SNF	2.75%	6.05%	8.80%
Total	5.90%	6.40%	12.30%

Graph 1



Graph 2

Cheese and Whey Composition

Cheese Total Solids = 5.9%

Whey Total Solids = 6.4%

■ BF ■ SNF



- It is well known that in cheesemaking if one starts with approximately 100 pounds of milk you will get more or less roughly 10 pounds of cheese and 90 pounds of whey (with a solids content of 6.4 percent before whey cream separation). Of the solids in the original milk (approximately 12.3 percent), roughly 48 percent of the solids end up in the cheese and 52 percent end up in the whey, with permeate/lactose (at about 85 percent of total whey solids) being the dominant whey solid, followed by whey proteins and minerals.
- Of the whey solids that stay in the liquid whey after the cheese making process, approximately 9.45% of the whey solids goes into the manufacturing of WPC 80, 5.11% is whey cream and again over 85% of the total whey solids go into permeate, see Table 3 and Graph 3.
- In California, out of the 57 plants that make cheese, only 13 plants have some sort of whey concentration facilities, see exhibit 96. Of the 13 plants that process whey, maybe about a third may have the economies of scale to dry permeate/ lactose.

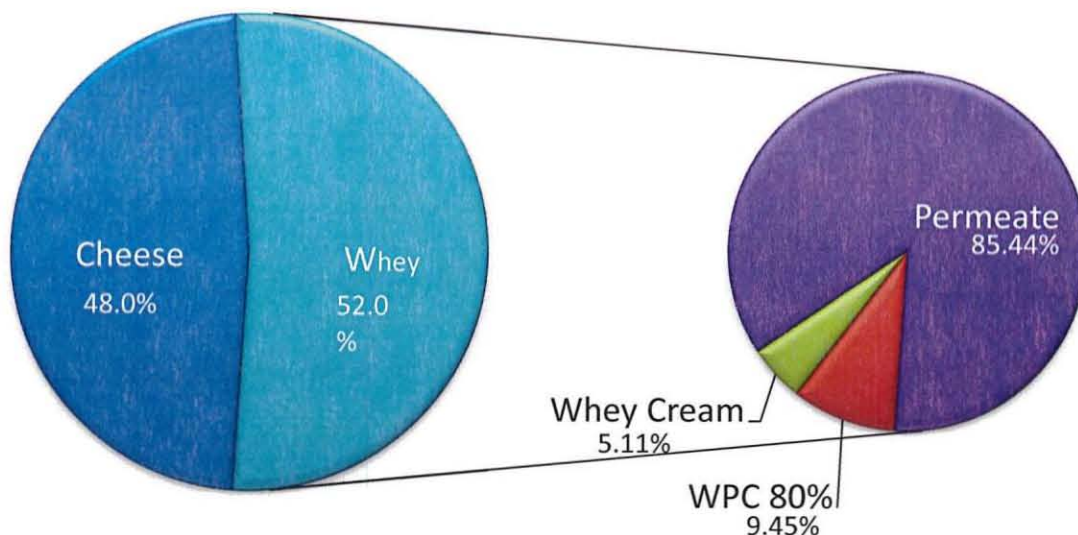
Whey Output

(Table 3) numbers based on 100 lbs of milk

Description	Whey Cream Lbs	WPC 80% Lbs	Permeate Powder	Total
BF	0.3000	0.0500	-	0.3500
SNF	0.0272	0.5548	5.4680	6.0500
total from TS	0.3272	0.6048	5.4680	6.4000
% Distribution of TS	5.11%	9.45%	85.44%	100.00%

Graph 3

Cheese and Whey Solids



To capture the maximum value of a whey stream it is important to have the ability to take it all the way to a dry state. Unfortunately the installation of whey evaporators and dryers is an extremely capital-intensive operation and subject to large economies of scale. Small and medium size cheese companies like MBI, don't dry permeate/lactose fraction and don't have the ability to fund a \$35 million permeate drying facility so will be unable to capture revenues to keep up with the rising milk cost, specifically in 4b whey component formula. We don't

recoup the full value of whey. Finding experienced people to run this complicated equipment is no small task. Whey evaporation and drying is governed by huge economies of scale, and small- and medium-sized plants don't individually have enough whey volume to justify the expenditures. Sales and marketing expertise is critical to economic success and most small and medium cheese plants don't currently have this expertise in house. In time when additional plant capacity is needed, the cooperatives' proposed regulated milk pricing formula applicable to cheese plants will discourage investment in new cheese plants and WPC plants and will make it difficult for some plants to continue operations.

According to the milk pooling data table prepared by CDFA, titled "Pounds of milk Processed into Cheese" (see exhibit 96),

1. Forty three plants representing approximately 75% of the 57 total plants producing cheese in California are on average processing less than 788 thousand pounds of liquid whey per day, assuming 21.7M. avg. milk pounds/mo. (Assuming avg. 21.7M. milk pounds/mo * 87% yield in whey divided by a 24 day per month operation). These cheese factories are mostly too small to dry whey, or process whey to get at whey proteins, they lose money every month on this portion of the Class 4B milk price.
2. Six plants representing approximately 10.53% of the 57 total plants producing cheese in California are processing less than 1.13 million pounds of liquid whey per day, (Assuming avg. 31M. milk pounds/mo * 87% yield in whey divided by a 24 day per month operation).
3. In other words, 49 plants in all, representing approximately 85.96% of the 57 total plants producing cheese in California are either not processing or processing less than 1.2 million pounds of liquid whey per day, which is at or around the breakeven point. These 49 plants produce less than 19.1% of the total cheese output, according to exhibit 96.
4. Although all 57 plants would be severely financially impacted by the increase in the milk price, 43 cheese processing plants will probably never recover their investment and 6 other plants will struggle to break even, taking them decades to recover or see a return, if they were to build a Whey Plant. These plants are financially burdened when the whey market price increases dramatically or reaches certain thresholds.

Even for companies like ours that have some whey processing capabilities, growth in cheese manufacturing and distribution will be severely restricted should we experience further losses in our whey business. Our experience has been that during the first three to four years of our whey operations, we did not see any net profits.

Cheese whey disposal has always been a burden and an environmental problem, historically costing Marquez Brothers \$1.5 million per year to dispose of with zero revenue value and no milk allowance in the 4b price to cover whey disposal costs over the years. Further, there is no real recognition for our whey disposal cost losses in the cooperatives' proposed mandatory Class III milk pricing formula.

Historically, whey powder values compared with whey protein concentrate (WPC) values were similar when calculated on a price per pound of protein basis. This led us to a decision in 2004 to finance a whey protein plant only. This decision was driven by two key factors:

- a. The environmental problem associated with whey disposal would be alleviated and Marquez Brothers International could focus on growing its cheese distribution business, and
- b. The pricing history in 2003 indicated that the revenue stream from WPC-80 only would be similar to a whole whey powder plant and therefore justified us building a WPC-80 only plant, while disposing of concentrated permeate as animal feed.

As I mentioned earlier, Marquez Brothers International, Inc's primary focus is on cheese manufacturing and distribution. Prior to constructing the whey plant, our cost to dispose the whey component for the years 2000 to 2005, was approximately \$7.5 million or \$1.5 million per year. The whey protein plant was completed in August

2005, for an investment amount of approximately \$20 million. Despite our multi-million dollar investment to alleviate the environmental problems associated with whey, we have not seen a return on that investment. Our total loss incurred from August 2005 to August 2007 mainly due to the whey component is approximately \$7 Million. To date, we have not yet recovered from these losses and we are years away from ROI. Why? We simply do not have enough volume. Currently with WPC values below dry whey values on a pound of protein basis, we are facing a very challenging environment on the whey side of our business.

As a result of having the whey plant, we have seen an increase in our hydraulic Biological Oxygen Demand (BOD) and Electrical Conductivity (EC) loads on our waste water. This has led us to make another multimillion dollar investment in a waste water pre-treatment plant with an operating cost of approximately \$200K/mo.

Cheese pricing at the consumer level has become much more difficult to price out to our customers because we can no longer gauge ourselves based on the CME cheddar cheese prices. The whey component distorts our margins and pricing mechanisms. The cooperatives' proposed mandatory Class III price level significantly increases the price of our number one raw material, milk, and whey value has no correlation to the CME cheddar cheese price. However, the cheddar cheese price has a direct correlation to our cost per pound of milk and cheese.

Class 4b and Federal Order

In the federal order, the entire value of dry whey (minus a make allowance) that could potentially be generated from the liquid whey produced from cheese production is captured in the Class III milk price. In effect this means that a cheesemaker is paying his producers for the value of the whey that could potentially be generated from their milk whether or not the cheesemaker extracted that value from the whey.

The producers focus only on the lack of correlation of the California 4b price with the Federal Order Class III price. This comparison is not valid. This year, cheese plants in Wisconsin could and did buy milk at \$7.00 under the Federal Order Class III price. It is doubtful California producers will ever testify to that very real comparison with the regulated 4b price by the time this hearing concludes. They are unlikely to include information from an article written in the Cheese Reporter by John Umhoefer, on May 8, 2015

"Dairy producers gain a value for whey in their milk price in California and in states regulated by federal milk marketing orders. But California has a better solution for valuing whey and while the explanation is a bit technical, the fundamental reason why California is on the right track isn't technical at all. The reason is this: cheese makers pay dairy producers the value of dried whey. But most cheese makers don't produce dried whey. When whey prices are high, many cheese makers take immense losses."

According to the article, the majority of the cheese companies that do not have the capability to process their whey are being charged the full price of whey in the milk price with no means to recover and placing a huge financial burden on these cheese manufacturers. He further states that,

"It's a fundamental flaw in the federal milk marketing order pricing – a built-in discrimination against small and mid-sized cheese manufacturing businesses that cannot begin to afford the cost of dried whey manufacturing. Production of dried whey requires massive capital investment, in the tens of millions of dollars, and this investment is not possible for most cheese manufacturing small businesses."

Mr. Umhoefer recognizes that the whey factor in the federal order system needs to be fixed, and submitted comments to USDA making the case that dry sweet whey is not an appropriate basis for the valuation of other solids in the Federal Order Class III price. *"Nationally, there are only 32 dried whey plants, equal to only 6 percent of the 529 cheese plants included in the NASS survey."* This problem of overvaluation is more acute in California where plants do not have the federal order option pay under minimum class prices.

The Dairy Institute proposal does address the problem

Given the fact that the last five CDFA hearings have resulted in price increases which have presented challenges to our company, we support the Dairy Institute proposal. It is critical to keep milk prices at levels that still provide margins for cheese makers to invest in new technology to keep the plants operating, to invest funds in research and development that will lead to innovation, new products, and expanded markets for cheese (and milk). It will also incentivize the processor community to grow by allowing the majority of the returns to be realized by those taking the risk of the investment and increase milk processing capacity in cheese plants in a time when there is excess milk.

Conclusion

Adopting the cooperatives' proposal will strongly discourage cheese plant investment and place near term plant capacity at risk, at a time when plant capacity is needed for the continued health of both producers and processors. Milk producers are not contributing to the investments required to process whey and alleviate the environmental problems associated with whey. We take all the risk in processing whey, producers don't. We make the capital investment in Whey Manufacturing facilities, producers don't. We take all of the losses in weak whey markets, producers don't.

It is not sustainable to adopt the Class III price as the mandatory minimum price paid by California cheese plants. California cheese plants are still struggling to adapt to the change implemented by CDFA from 2011 through 2014, which to date has added \$0.80/cwt to the price of milk. Compounding our problems due to these increases in milk price, we are confronted ^{with} ever higher energy, labor, resin, petroleum based packaging materials and workers compensation cost to operate in California, which has made it much more difficult to be competitive in domestic markets.

Thank you for the opportunity to be here today.