

**United States Department of Agriculture
Before The Secretary of Agriculture**

**In re: [Docket No. 23-J-0067; AMS-DA-23-0031]
Milk in the Northeast and Other Marketing Areas**

Hearing beginning August 23, 2023

Testimony Presented By:

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Representing
Dairy Farmers of America
1405 North 98th St
Kansas City, KS 66111**

Subject: Class III and IV Formula Factors

My name is Edward Gallagher. I appear today on behalf of Dairy Farmers of America (DFA) National Milk Producers Federation (NMPF) and in support of proposal number 7 – to adjust the make allowances used to determine Federal Order Class III and IV milk prices.¹

Dairy Farmers of America is a global dairy industry leader and is the largest US dairy cooperative and largest US milk business. Exhibit NMPF – 4A provides a series of facts about DFA.

I am the President of DFA Risk Management, a business unit of Dairy Farmers of America. As president of DFA Risk Management, I lead the DFA business unit that offers price risk management programs to members, DFA-owned plants and business units and their customers. My team and I offer the dairy industry's leading milk price forward contracting program to our farmer-owners. Additionally, I am responsible for DFA's Federal Dairy Revenue Protection and other crop insurance programs. I have led DFA's Federal Order policy initiatives since January 2022.

I have worked in the dairy industry my whole life, having been raised on my family's dairy farm in central New York. I spent 13 years at the Northeast Milk Market Administrators office as an Economist and their Chief of Market Analysis, Research and Information, and joined Dairylea Cooperative Inc. in 1996 where I lead them through the Federal Order Reform process in the late 1990s and later, I served in a variety of senior management roles. I have been in my present role at DFA since 2010.

¹ This proposal seeks to amend the manufacturing cost (make) allowances found in the four component price formulas. The proposal includes the following increases: Butterfat: from \$0.1715 to \$0.2100 per pound of butter, Nonfat Solids: from \$0.1678 to \$0.2100 per pound of nonfat dry milk (NFDM), Protein: from \$0.2003 to \$0.2400 per pound of Cheddar cheese, Other Solids: from \$0.1991 to \$0.2300 per pound of dry whey. The requested changes are equivalent to an increase of \$0.0385 per pound in the butter make allowance, an increase of \$0.0422 per pound in the nonfat dry milk make allowance, an increase of \$0.0397 per pound in the Cheddar cheese make allowance, and an increase of \$0.0309 per pound in the dry whey make allowance.

I am a frequent industry speaker imparting my knowledge of milk pricing, risk management and the dairy industry. I am a member of the National Milk Producers Federation board of directors. I serve on the Commodity Futures Trading Commission's Agricultural Advisory Committee, the Risk Management Committee for the National Council of Farmer Cooperatives, the National Milk Producers Federation Cheese Pricing Task Force and its Federal Order Task Force, and the New York Commissioner of Agriculture's Milk Marketing Advisory Council, among other activities. I have testified before the US House and Senate Agriculture Committees on milk pricing and risk management issues and have been an expert witness at a variety of milk pricing regulatory and legal matters. I hold a Bachelor of Science degree in Agricultural Economics and Farm Business Management from Cornell University and a Masters of Science degree in Agricultural Economics from The Ohio State University.

I am here to present evidence about the need to limit the make allowance changes to those levels proposed by NMPF. My testimony will cover the existence of significant farm input price inflation, high milk cost of production and thin dairy profit margins that could lead to a disorderly marketing condition of a substantial loss of raw milk production if a structural change to Federal order class prices leads to a significant reduction in farm milk prices.

The existence of high feed prices and other inflated dairy production costs and longer-term low dairy farmer profit margins provide strong evidence for the need to be responsive to the impacts make allowance changes will have on dairy farmer profitability. Aggressive make allowance increases, whether or not evidence of higher manufacturing costs exist, will harm dairy farmer profitability, negatively impacting the milk supply and lead to a potentially troubling disorderly marketing condition that risks that ability for US dairy farmers to adequately supply the market's needs for milk.

DFA and the NMPF member cooperatives have carefully and thoughtfully approached the issue about updating Federal order make allowances. There is no doubt that dairy plant input prices have increased since 2006, the last time data was included in a Federal order hearing considering adjustments to make allowances. There is also no doubt that dairy plants are more efficient in converting loads of milk into manufactured dairy products and there is no doubt that the dairy manufacturing industry has expanded with newer and more efficient technology and larger plant sizes.

But the changes to non-milk input prices at the processing level must be balanced against what would happen at the farm level of the dairy supply chain if a Federal order price formula change led to a significant decrease in milk prices. An increase in make allowances reduces Class prices and dairy farmer milk prices and shifts that revenue to a credit to those manufacturing dairy products. Since a make allowance increase directly reduces milk prices, impacting dairy farmer milk checks, we believe a strong burden of proof, backed by strong and credible data are absolutely necessary to justify a large make allowance increase.

The dairy farmer side of the industry has data confidence issues with the surveyed data in the public domain that in prior proceedings of this nature were used to adjust dairy farmer milk prices via a make allowance change. I go no further than pointing to the work of the International Dairy Foods Association and others to utilize input price changes in equations to update manufacturing costs that were established with the technology and manufacturing infrastructure that existed **17** years ago as an example of evidence of concerns about the surveys' data. If adequate survey data existed, there would be no need to perform these mathematical calculations in an attempt to determine changes in the

manufacturing cost of production or to “prove them out”. Dairy manufacturing factors of productivity have increased over those 17 years which can not be seen by a review of input prices alone or by adjusting an equation by some mathematical exercise to include some other industries’ factors of productivity.

Dairy farmers across the country are concerned about a wealth transfer from their families’ businesses to manufacturing plant operators through their milk checks by Federal fiat. We are faced with a looming crisis of confidence from dairy producers.

You will hear resounding support from the dairy farming community for the NMPF make allowance proposal. It balances the recognition of manufacturing plant input price increases against the impact on dairy farmer milk prices and dairy farmer profitability and, in so doing, recognizes the data issues that undermine the confidence of dairy farmers wanting a fair and balanced outcome.

DFA, NMPF, the American Farm Bureau and others are working with Congress to establish a procedure for the Federal government to survey dairy plant manufacturers about their input prices, costs, yields, and other factors to develop a data set that has the entire industry’s confidence and that can be used as meaningful input in future Federal order hearings about make allowances. Unfortunately, at this point in time, we do not have data that leads to industry-wide confidence.

The NMPF member cooperatives have developed a fair and balanced make allowance proposal that provides cost relief to manufacturing plants. The cooperatives are hopeful that this balanced approach will maintain the confidence in, and the support of, the Federal order program by dairy farmers across this country. DFA and NMPF strongly urges the Secretary of Agriculture to adopt the NMPF make allowance proposal.

DFA and NMPF will be sharing data today that compares farm input prices, dairy farm costs and costs of production per hundredweight of milk and dairy farm profitability in the US and for various regions, over time. We will provide data from USDA and private accounting firms as evidence. This evidence will show that there has been significant price inflation on dairy farms, their costs and costs of production have increased substantially and the average profitability over time is highly variable and averages less than one dollar per hundredweight of milk produced in some areas of the United States.

Although you will have information on the record that may show that manufacturing input prices have increased substantially and total costs of production have increased at various milk plants across the United States beyond four cents a pound, since 2006, it is important to note that dairy farmers’ input prices and costs have increased as well and that their profitability will be substantially harmed if there is a significant increase in make allowances. A significant change in the structural basis of US milk prices coming from a significant increase in Federal order make allowances will result in a loss of profitability of dairy farms, more rapid consolidation of the producer sector, reduced milk production than would otherwise occur which in turn could likely create disorderly marketing conditions relative to the supply of milk to meet the needs of consumers.

Farm Input Price Inflation

I begin by presenting farm input price inflation data. I expect much to be discussed about price inflation facing dairy plants. A portion of the proposed International Dairy Foods Association (IDFA) and Wisconsin Cheese Makers Association (WCMA) make allowance adjustment is based on milk plant input

price inflation over time. We believe it is important for the Secretary of Agriculture to also consider price inflation on farms, as well. The US Constitution equivalent of the Federal Order program – the Agricultural Marketing Agreement Act of 1937, as amended, does not reference make allowances or manufacturers’ input price inflation in the determination of minimum milk prices. It does, though, instruct the Secretary to consider issues related to the price of livestock feed.

USDA’s National Agricultural Statistics Service (NASS) administers monthly surveys of agricultural prices received and paid by farmers. Their survey results are presented in their monthly publication Agricultural Prices (Ag Prices). Their Prices Paid section provides relevant information on several farm production inputs, and, tracked over time, can show inflationary or deflationary prices faced by farmers across the United States. DFA and NMPF request official notice be taken of the Ag Prices monthly publication from December 1999 to the present.

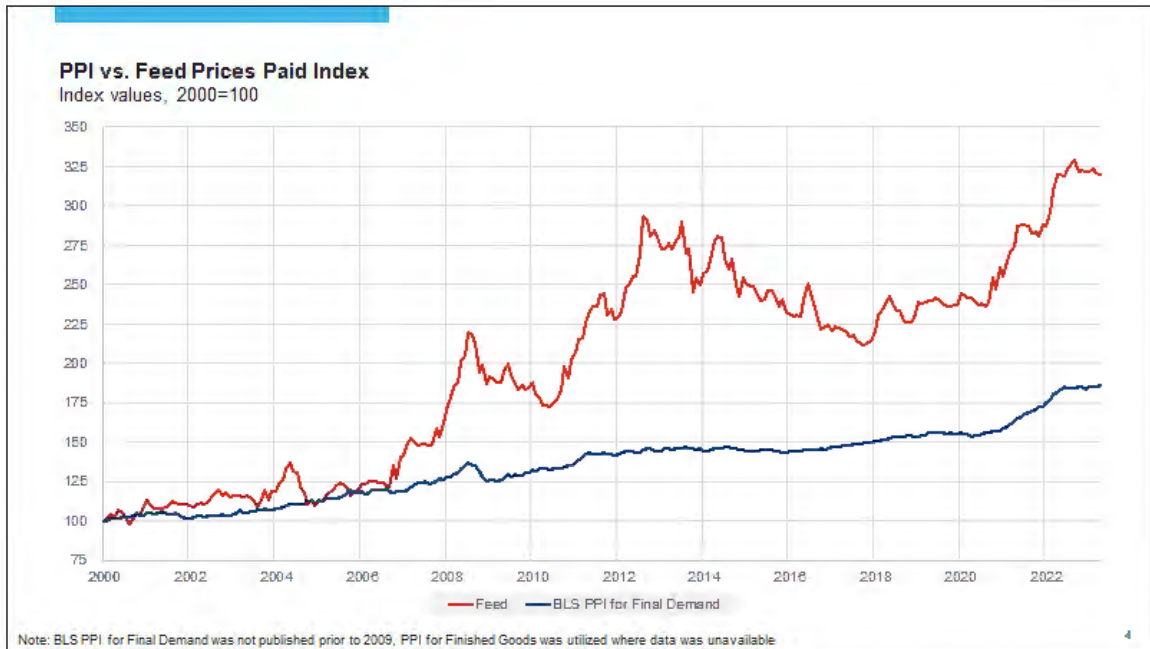
Livestock Feed Prices

The Ag Prices feed price index is telling of the situation faced by dairy farmers. Although not a dairy farmer only survey, it provides general pricing information for the US marketplace where dairy farmers purchase livestock feed inputs in competition with other livestock farmers, ethanol plants and other businesses using feed stuffs in their manufacturing processes. It also can show pressures from overseas buyers that import US grown feed grains. Livestock feed often represents 50% or more of the cost of production on a dairy farm so inflationary or deflationary pricing aspects of feed are an important factor in the cost of producing milk.

The following chart was produced at DFA using Ag Prices data. We adjusted the base to be year 2000 to coincide with the implementation of the Federal Order reform pricing provisions. Relative to inflationary references in the IDFA and WCMA proposals about adjusting make allowances, the US Federal Bureau of Labor Statistics’ Producer Price Index for final demand (PPI) is also shown on the chart.^{2 3} This statistic, also surveyed and reported monthly, is a common measurement of inflation impacting producers of goods and services across the US. It surveys the price that was received for selling the input produced by the manufacturers or service providers. The statistic’s change over time can provide indications of general inflation or deflation facing businesses as they would raise or lower their selling prices to either pass along higher input prices or pass along deflating input prices. It is for this reason that the Federal Reserve uses this statistic as a guide in making inflationary-based decisions about adjustments to their Federal Funds rate. DFA and NMPF request official notice be taken of monthly PPI publications from December 1999 to the present.

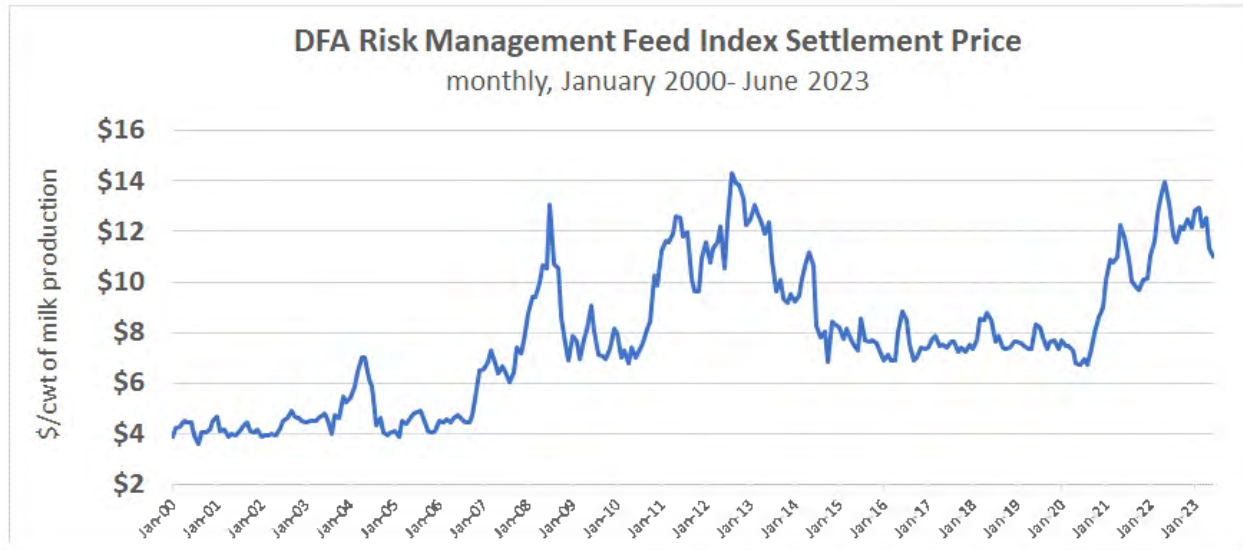
² There are PPI information for dairy product manufacturers. However, since the PPI measures a manufacturer’s selling price it would then automatically incorporate monthly changes to milk or dairy product prices as these input prices would be the largest contributor, generally, to the cost of production for a manufacturing plant. For this reason, DFA chooses to use the PPI for final demand as our inflation comparison.

³ The PPI for Final Demand, monthly, not seasonally adjusted, begins in January 2014. We reviewed the PPI Final Demand Finished Goods Index, monthly not seasonally adjusted, which dates back before January 2000. From January 2014 through April 2023, the PPI for Final Demand index averaged about 56.4% of the PPI Final Demand Finished Goods. We calculated PPI Final Demand Finished Goods Index values form January 2000 – December 2013 by multiplying a month’s PPI Final Demand Finished Goods by 56.4%.



The chart above using the Ag Price information for livestock feed shows that feed prices are inflationary and deflationary but tend to be much more inflationary over time than the PPI, which also has been included and is the bottom line. This can easily be seen that the Feed Index PPI is 3.25 times higher than it was in 2000, while the PPI is about 1.8 times higher. Also, it can be seen, that Feed and general PPI inflation ran approximately parallel until 2007 when the two price surveys have seen increasingly larger divergences. Impacting feed prices has been the Federal supported use of feed stuffs to produce ethanol and other bio-fuels, droughts, growing US feed grain export sales and, most recently the Russia-Ukraine conflict.

DFA Risk Management supports our farmer owners by offering opportunities to hedge purchased feed prices. Our primary means is by using our milk feed index (identified as the DFA Risk Management Feed Index) which we can combine with a milk price hedge in our forward contract to support a milk-feed margin. Our milk feed margin has been in place since 2010. It incorporates CME Group corn and soybean meal futures as the price variables and uses fixed conversion factors to convert a feed ration into a cost per hundredweight of milk. We have not changed the conversion factors since the program's inception. The following chart tracks the historical change in our feed index and is in terms of a price per hundredweight of milk. The chart shows monthly values from January 2000 to June 2023.



Striking are some of the index value changes. In the pre-ethanol era – prior to 2006, the feed index generally settled between \$4 and \$5 per hundredweight of milk production. You can see the sharp spike in the feed price when the US ethanol support programs impacted investment in and expansion of operations of ethanol plants in 2008. The impact of the US corn belt drought of 2012 can be seen, as can spikes in feed prices from the Ukraine conflict. As can be seen, the floor of the index, post 2009 is almost double the average price that existed prior to the Federal investment supporting ethanol production. Also, the index value, though lower than its 2021 spike, still remains significantly higher than most months since 2000. Dairy farmers have been faced with significant feed price inflation that has led to challenges in profitably. Federal order milk pricing formulas and blend price pools do not include a factor to help dairy farmers recover their costs related to feeding more expensive feed to their herds. The existence of inflated livestock feed prices and the significant impact on a dairy farmer’s cost of production needs to be measured against a structural change to Federal order milk prices. With higher feed costs, a significant decline in Federal order milk prices will harm dairy farmer profitability leading to reduced milk production than otherwise would occur and threatening the ability to adequately supply the market its milk needs – leading to a potentially supply induced disorderly marketing condition. DFA encourages the Secretary of Agriculture to consider the significantly inflated prices for livestock feed when making his decision about changes to Federal order make allowances and use it as evidence to support the NMPF make allowance adjustment proposal, even if there is credible evidence of the existence of higher manufacturing costs of production.

Dairy Margin Coverage Program

USDA’s Dairy Margin Coverage Program provides a modest volume of US produced milk with some protection against feed price inflation. DFA and NMPF request USDA take official notice of the USDA Dairy Margin Coverage Program (DMC). Two fact sheets about the program can be found at:

- 1) https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/2022/dairy_margin_coverage_program_2022_fact_sheet.pdf
- 2) https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/2022/202202_fsa_dairy_margin_coverage_sdmc_fact_sheet_v5.pdf

The DMC program protects a milk feed margin based on the USDA All-Milk Price and the DMC feed index. When the margin is below an enrolled level of coverage, the dairy farmer will receive the difference between the protected margin and the calculated DMC margin. For instance, the May DMC margin was \$4.83 per hundredweight. Most dairy farmers enrolled in the program are insured at the \$9.50 margin. For May, those enrolled at the \$9.50 margin received a payment of approximately \$4.67.⁴

Of importance is the coverage under Tier 1. Tier 1 provides inexpensive coverage for up to 5 million pounds of annual enrolled production history (no more than 416,666 pounds per month). Tier 2 coverage is much more expensive for coverage at a meaningful level. Larger dairies using this program and that exceed more than 5 million pounds, cover as much milk as they can in Tier 1 (up to 5 million annually) and generally cover the rest of their eligible milk at the \$4 margin level which has no additional cost to them. The following chart was copied from the first DMC fact sheet included in the prior paragraph.

| Coverage Level | Tier 1 Premium per cwt for covered production history of 5 mil lbs. or less | Tier 2 Premium per cwt, all years for covered production history over 5 mil lbs. |
|-----------------------|--|---|
| \$4.00 | None | None |
| \$4.50 | \$0.0025 | \$0.0025 |
| \$5.00 | \$0.005 | \$0.005 |
| \$5.50 | \$0.030 | \$0.100 |
| \$6.00 | \$0.050 | \$0.310 |
| \$6.50 | \$0.070 | \$0.650 |
| \$7.00 | \$0.080 | \$1.107 |
| \$7.50 | \$0.090 | \$1.413 |
| \$8.00 | \$0.100 | \$1.813 |
| \$8.50 | \$0.105 | N/A |
| \$9.00 | \$0.110 | N/A |
| \$9.50 | \$0.150 | N/A |

The following chart was shared with DFA by NMPF and was developed by USDA. It shows the 2022 signup and use of the Dairy Margin Coverage program by size of dairy farm and type of coverage.

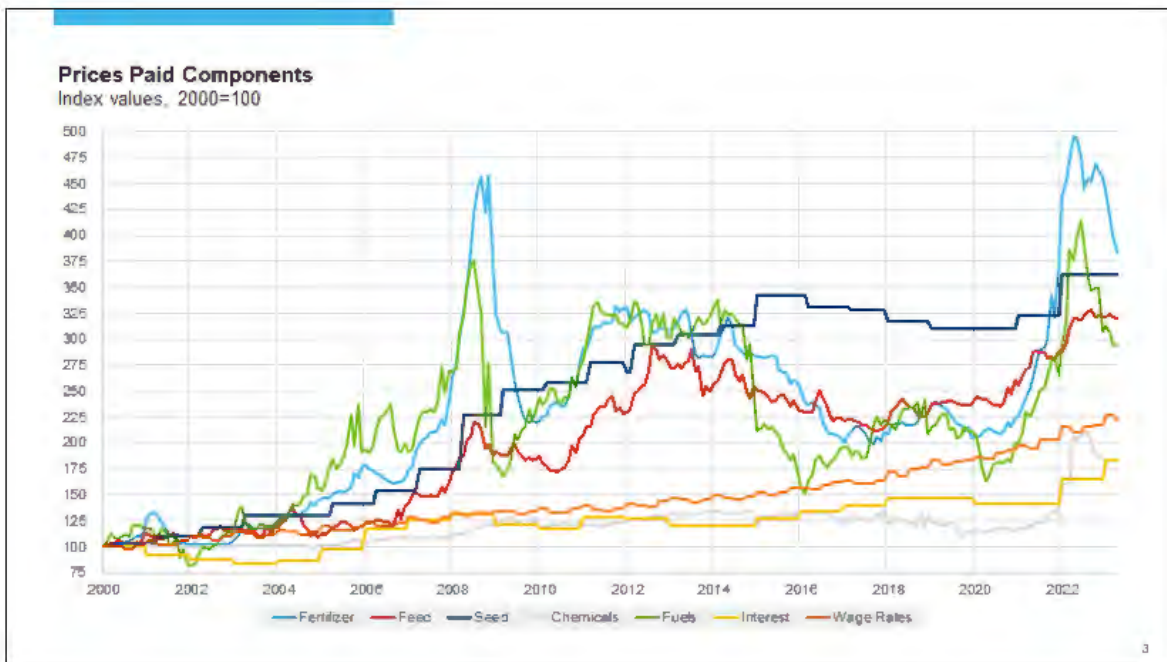
⁴ DMC indemnity payments are reduced by 5.7% in 2023 due to a sequester order required by Congress and issued pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985.

| Dairy Margin Coverage | | | | | | | | | | |
|---------------------------|-------------------------------------|------------------------|------------------|---|-----------------------|------------------|--|------------------------|-------------------|--|
| Size of Operation | 2022 Established Production History | | | 2022 Enrolled Production History Tier I | | | 2022 Enrolled Production History Tier II | | | Total Enrolled Avg Lbs. Tier I + II |
| | Count of Operations | Pounds | Avg Pounds | Count of Operations | Pounds | Avg Pounds | Count of Operations | Pounds | Avg Pounds | |
| 5 mil pounds or less | 19,814 | 34,246,111,474 | 1,728,380 | 12,577 | 22,268,929,417 | 1,770,607 | 0 | 0 | 0 | |
| 5,000,001 - 7,500,000 | 1,927 | 11,652,912,301 | 6,047,178 | 1,540 | 7,364,704,815 | 4,782,276 | 1,163 | 1,271,052,339 | 1,092,908 | 5,875,184 |
| 7,500,001 - 10,000,000 | 842 | 7,260,651,004 | 8,623,101 | 651 | 3,216,342,877 | 4,940,619 | 605 | 2,180,323,036 | 3,603,840 | 8,544,459 |
| 10,000,001 - 25,000,000 | 2,140 | 34,309,975,897 | 16,032,699 | 1,669 | 8,332,566,987 | 4,992,551 | 1,656 | 18,179,073,963 | 10,977,702 | 15,970,252 |
| 25,000,001 - 50,000,000 | 1,022 | 36,374,326,984 | 35,591,318 | 773 | 3,864,028,056 | 4,998,743 | 772 | 23,523,353,748 | 30,470,665 | 35,469,408 |
| 50,000,001 - 75,000,000 | 464 | 28,564,808,609 | 61,562,088 | 371 | 1,855,000,000 | 5,000,000 | 371 | 21,025,926,771 | 56,673,657 | 61,673,657 |
| 75,000,001 - 100,000,000 | 213 | 18,440,455,532 | 86,574,909 | 167 | 835,000,000 | 5,000,000 | 167 | 13,592,032,910 | 81,389,419 | 86,389,419 |
| 100,000,001 - 200,000,000 | 217 | 28,550,592,462 | 131,569,551 | 174 | 870,000,000 | 5,000,000 | 174 | 21,895,990,070 | 125,839,023 | 130,839,023 |
| Greater than 200 mil lbs. | 45 | 14,410,998,211 | 320,244,405 | 34 | 170,000,000 | 5,000,000 | 34 | 9,705,690,434 | 285,461,483 | 290,461,483 |
| Total | 26,684 | 213,810,832,474 | 8,012,698 | 17,956 | 48,776,572,152 | 2,716,450 | 4,942 | 111,373,443,271 | 22,536,108 | 25,252,557 |

For calendar year 2022, US dairy farmers produced 226.5 billion pounds of milk. Of this production, 48.8 billion, or 21.5 percent had meaningful coverage under the DMC Tier 1 and had some measure of protection against higher feed prices. The other 78.5 percent of the US milk production did not have that type of meaningful protection under this program. I suspect coverage levels to be similar in 2023 as it was in 2022. The existence of the DMC program does not produce enough benefit on the super majority of US milk production to be considered an offset against the need to recognize livestock feed price inflation in determining the appropriate limitation on the degree of a make allowance increase.

Other Farm Input Prices

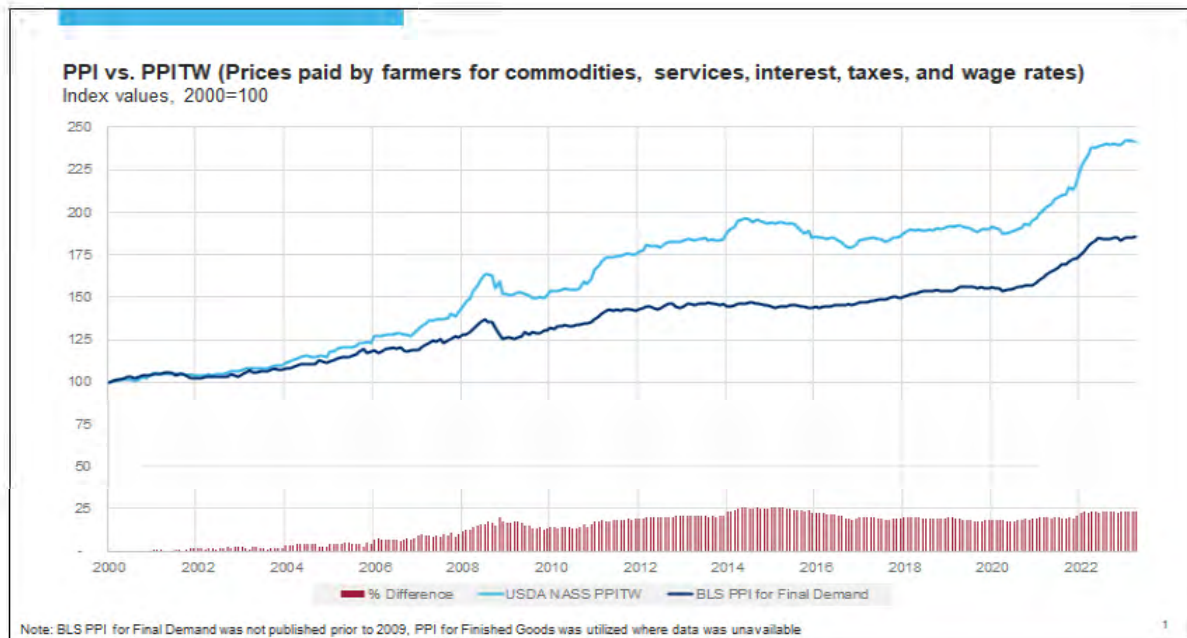
The following chart developed from NASS Ag Prices data portrays changes in farm input prices for feed, seed, fertilizer, chemicals, fuel, wage rates and interest rates. These are some of the more significant price inputs on dairy farms.



The chart shows significant price inflation since 2006 and very large increases since 2021.

The Ag Prices publication has its version of an index that combines all of these cost inputs, and others, into an index that provides information on farm-level inflation. This index is called the Prices Paid by Farmers for Commodities, Services, Interest, Taxes, and Wage Rates. It is referred to as the PPITW. Production items included in the PPITW and their relative weights can be found on page 27 of the May 2023 Ag Prices publication reporting April 2023 prices.

The following chart compares the PPITW – the agricultural inflation index – to the PPI.



The red bars at the bottom of the chart show the divergence between the two indexes. Beginning in 2004, the indexes began to diverge and there has been significant divergence since 2006. From January 2006 to April 2023, the PPITW increased 90.0 percent vs a 56.5 percent increase in the PPI. Both indexes show steep inflation since 2021.

Of importance in this proceeding, every business faced steep inflation over the last two years. This includes dairy farmers. However, unlike the request from the milk plant operators in IDFA and WCMA to have dairy farmers cover the manufacturers' increased inflationary input prices, dairy farmers do not have the same opportunity to recover their inflationary costs via Federal edict. Dairy farmers inflated costs of production need to be considered when determining the degree of increase to the make allowance in this proceeding.

Dairy Farmer Cost of Production and Profitability

DFA presents for the record information about dairy farmer cost of production and profit margins. We present data from USDA and two accounting firms. The accounting firms work with dairy farmers and they also aggregate their clients' income statements into data by various regions and publish the data for use as benchmark data for their clients and other dairy industry participants. With permissions where data is not publicly shared, we are presenting a number of years of data collected by Frazer, LPP and Nietske-Fauple. We will also be providing witnesses from each of these firms to review their data

and discuss any questions that the hearing participants and USDA may have. The regions covered in the accounting firm data are from states that made up 42 percent of 2022 US milk production.

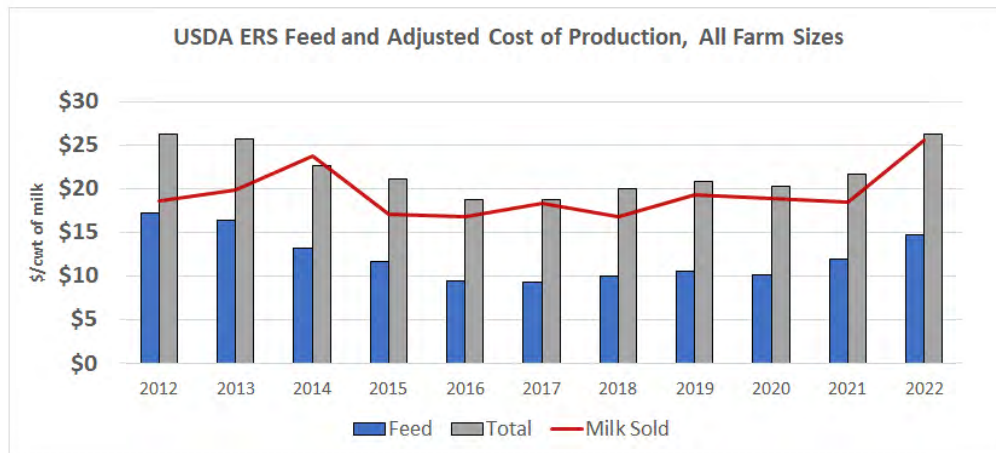
The following table was compiled by me from USDA Economic Research Service Milk Cost of Production Estimates using 2010, 2016 and 2021 base years.

I have made an adjustment to their Total Cost Listed values by subtracting from the cost – opportunity cost of labor and opportunity cost of land. I do this to make the data more comparable to the information from the various accounting firms that do not use these cost factors. I have adjusted the total cost in the row I call “Cost less opp. cost of unpaid labor and land”. I recompute profitability by subtracting that value from “Total, gross value of production”. The recomputed profitability value is the last row in the chart called “Adjusted net profit”.

| USDA, Economic Research Service, Milk Cost of Production Estimates | | | | | | | | | | | |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | All sizes | All sizes | All sizes | All sizes | All sizes | All sizes | All sizes | All sizes | All sizes | All sizes | All sizes |
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
| Gross value of production | | | | | | | | | | | |
| Milk sold | \$18.64 | \$19.88 | \$23.76 | \$17.02 | \$16.83 | \$18.25 | \$16.82 | \$19.26 | \$18.87 | \$18.49 | \$25.50 |
| Cattle | \$1.57 | \$1.60 | \$2.10 | \$2.00 | \$1.47 | \$1.37 | \$1.26 | \$1.23 | \$1.27 | \$1.06 | \$1.27 |
| Other income ¹ | \$0.98 | \$0.90 | \$0.91 | \$0.84 | \$0.54 | \$0.50 | \$0.53 | \$0.54 | \$0.51 | \$0.56 | \$0.80 |
| Total, gross value of production | \$21.19 | \$22.38 | \$26.77 | \$19.86 | \$18.84 | \$20.11 | \$18.60 | \$21.03 | \$20.65 | \$20.11 | \$27.57 |
| Operating costs | | | | | | | | | | | |
| Purchased feed | \$10.52 | \$9.74 | \$6.74 | \$6.11 | \$6.68 | \$6.49 | \$6.76 | \$7.20 | \$6.93 | \$7.98 | \$9.91 |
| Homegrown harvested feed | \$6.52 | \$6.56 | \$6.30 | \$5.46 | \$2.63 | \$2.72 | \$3.12 | \$3.33 | \$3.11 | \$3.98 | \$4.80 |
| Grazed feed | \$0.09 | \$0.10 | \$0.09 | \$0.11 | \$0.07 | \$0.07 | \$0.08 | \$0.07 | \$0.07 | \$0.03 | \$0.03 |
| Total, feed costs | \$17.13 | \$16.40 | \$13.13 | \$11.68 | \$9.38 | \$9.29 | \$9.95 | \$10.60 | \$10.10 | \$11.99 | \$14.74 |
| Veterinary and medicine | \$0.79 | \$0.80 | \$0.84 | \$0.88 | \$0.77 | \$0.75 | \$0.76 | \$0.78 | \$0.78 | \$0.62 | \$0.70 |
| Bedding and litter | \$0.24 | \$0.24 | \$0.25 | \$0.26 | \$0.20 | \$0.19 | \$0.20 | \$0.20 | \$0.20 | \$0.18 | \$0.20 |
| Marketing | \$0.23 | \$0.23 | \$0.24 | \$0.26 | \$0.18 | \$0.18 | \$0.18 | \$0.19 | \$0.18 | \$0.16 | \$0.18 |
| Custom services | \$0.54 | \$0.56 | \$0.58 | \$0.61 | \$0.67 | \$0.65 | \$0.66 | \$0.67 | \$0.67 | \$0.71 | \$0.80 |
| Fuel, lube, and electricity | \$0.82 | \$0.82 | \$0.82 | \$0.53 | \$0.52 | \$0.59 | \$0.67 | \$0.64 | \$0.54 | \$0.63 | \$0.90 |
| Repairs | \$0.58 | \$0.60 | \$0.62 | \$0.62 | \$0.61 | \$0.62 | \$0.66 | \$0.66 | \$0.67 | \$0.70 | \$0.82 |
| Other, operating costs ² | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.01 | \$0.01 |
| Interest on operating capital | \$0.01 | \$0.01 | \$0.00 | \$0.01 | \$0.03 | \$0.06 | \$0.14 | \$0.14 | \$0.03 | \$0.00 | \$0.22 |
| Total, operating costs | \$20.34 | \$19.76 | \$16.49 | \$14.85 | \$12.36 | \$12.34 | \$13.22 | \$13.88 | \$13.18 | \$15.01 | \$18.57 |
| Allocated overhead | | | | | | | | | | | |
| Hired labor | \$1.54 | \$1.58 | \$1.61 | \$1.69 | \$1.83 | \$1.87 | \$1.99 | \$2.10 | \$2.20 | \$1.93 | \$2.10 |
| Opportunity cost of unpaid labor | \$2.16 | \$2.22 | \$2.25 | \$2.28 | \$1.71 | \$1.77 | \$1.82 | \$1.88 | \$1.92 | \$1.38 | \$1.46 |
| Capital recovery of machinery and equipment ³ | \$3.50 | \$3.57 | \$3.68 | \$3.73 | \$3.77 | \$3.86 | \$4.08 | \$4.08 | \$4.16 | \$4.01 | \$4.69 |
| Opportunity cost of land | \$0.02 | \$0.02 | \$0.02 | \$0.03 | \$0.02 | \$0.02 | \$0.03 | \$0.02 | \$0.02 | \$0.02 | \$0.02 |
| Taxes and insurance | \$0.18 | \$0.19 | \$0.19 | \$0.20 | \$0.18 | \$0.18 | \$0.18 | \$0.18 | \$0.18 | \$0.20 | \$0.22 |
| General farm overhead | \$0.61 | \$0.61 | \$0.63 | \$0.63 | \$0.53 | \$0.54 | \$0.55 | \$0.57 | \$0.58 | \$0.50 | \$0.56 |
| Total, allocated overhead | \$8.01 | \$8.19 | \$8.38 | \$8.56 | \$8.04 | \$8.24 | \$8.65 | \$8.84 | \$9.05 | \$8.05 | \$9.06 |
| Costs listed | | | | | | | | | | | |
| Total, costs listed | \$28.35 | \$27.95 | \$24.87 | \$23.41 | \$20.39 | \$20.58 | \$21.87 | \$22.72 | \$22.23 | \$23.06 | \$27.63 |
| Net value | | | | | | | | | | | |
| Value of production less total costs listed | -\$7.16 | -\$5.57 | \$1.90 | -\$3.55 | -\$1.55 | -\$0.46 | -\$3.27 | -\$1.69 | -\$1.58 | -\$2.94 | -\$0.06 |
| Value of production less operating costs | \$0.85 | \$2.62 | \$10.28 | \$5.01 | \$6.49 | \$7.77 | \$5.38 | \$7.16 | \$7.47 | \$5.10 | \$9.00 |
| Cost less opp. cost unpaid labor and land | \$26.17 | \$25.71 | \$22.60 | \$21.10 | \$18.66 | \$18.79 | \$20.02 | \$20.82 | \$20.29 | \$21.66 | \$26.15 |
| Adjusted net profit | (\$4.98) | (\$3.33) | \$4.17 | (\$1.24) | \$0.18 | \$1.32 | (\$1.42) | \$0.21 | \$0.36 | (\$1.55) | \$1.42 |
| Source: https://www.ers.usda.gov/data-products/milk-cost-of-production-estimates/ | | | | | | | | | | | |
| See Source for footnotes | | | | | | | | | | | |

The following chart was produced from the USDA ERS data. It charts the “Total feed costs” row identified in the chart as “Feed”, the “Cost less opp. cost unpaid labor and land” row identified in the chart as “Total” and the “Milk sold” row which represents the average milk price and identified in the chart as

“Milk Sold”. It shows that dairy farmers have been under cost pressures. The feed cost, though volatile, has been steadily rising since 2017, as have total costs. Additionally, it is clear that the difference between the total cost and the feed cost bars is expanding – indicating inflation in other dairy production input prices. Additionally, the chart shows that in every year, the milk price is not sufficient to cover the production costs. The USDA data also shows that the shortfall in the milk check (Milk Sold minus Cost less opp. cost unpaid labor and land) has averaged \$2.06 per cwt since 2015. Note though, the row adjusted net profit is positive in some years. This means, in some years, dairy farmers, on average, earn their profit by their other income – selling livestock, selling crops and collecting government payments, among other things.



USDA’s milk production cost estimates provide information by farm size. The following chart show three sizes from their data:

- 1) farms with 1,000-1,999 milking cows,
- 2) farms with 2,000 or more milking cows and
- 3) the All Farm Sizes which is shown in the chart above.

Prior to 2016, USDA’s largest farm size was 1,000 cows or more. In the table below, I used the 1,000 cows or more data for both the 1,000 – 1,999 and 2,000 or more dairy farm sizes for years 2012-2015. The data I show is the “Adjusted Net Profit” value that DFA computed with the USDA data. It is shown in the chart above for the “All sizes data”. The explanation of the “Adjusted Net Profit”, above, is the same methodology used for the calculation of the value for the other two size groups. Please see the USDA data for the values used in the calculation.

DFA's Adjusted Profitability Data based on USDA's Milk Production Estimates, by Selected Dairy Farm Size

| | Number of Milking Cows on Farms | | |
|----------------|---------------------------------|-----------------------|------------------|
| | <u>1,000-1,999*</u> | <u>2,000 or more*</u> | <u>All Sizes</u> |
| 2012 | (\$2.05) | (\$2.05) | (\$4.98) |
| 2013 | (\$0.03) | (\$0.03) | (\$3.33) |
| 2014 | \$7.44 | \$7.44 | \$4.17 |
| 2015 | \$1.92 | \$1.92 | (\$1.24) |
| 2016 | \$0.25 | \$0.58 | \$0.18 |
| 2017 | \$1.44 | \$1.77 | \$1.32 |
| 2018 | (\$1.13) | (\$0.58) | (\$1.42) |
| 2019 | \$0.40 | \$1.01 | \$0.21 |
| 2020 | \$0.46 | \$1.13 | \$0.36 |
| 2021 | (\$0.50) | \$0.20 | (\$1.55) |
| 2022 | \$2.80 | \$3.66 | \$1.42 |
| Avg since 2012 | \$1.00 | \$1.37 | (\$0.44) |
| Avg since 2015 | \$0.71 | \$1.21 | (\$0.09) |

*In 2016, USDA began reporting 2,000 or more milk cow statistics.

Data Source: USDA, ERS Milk Production Estimates, various years.

The Adjusted Net Profit provides a “whole” dairy farm profitability view. It shows, that despite an insufficient average milk price for All Sizes, that in some years the average US dairy farm makes a profit based on other income sources. For All Sizes, the table shows a volatile profitability picture with US dairy farm profits averaging minus \$.44 per cwt since 2012 and a minus \$.09 since 2015, despite the strong 2022 outcome. Similarly, there is volatility in the two largest dairy farm size groups. Although, on average, those dairies have been profitable, the average profit margin is modest.

Using data from the DMC chart I used in my testimony relative to Proposal 1, about 126.4 billion of the reported 213.8 billion pounds of milk is produced on dairy farms producing more than 25 million pounds of milk per year. Using a 24,000 pound per cow herd average would make the 25 million pounds equivalent to about 1,000 milk cows. This data shows that about 60 percent of the milk in the United States is produced on dairies with 1,000 or more cows. The percentage of US production from these farm sizes will continue to grow and will be an even larger market share in a couple of years. The profitability of all farm sizes is important. DFA and NMPF respectfully suggest that the profitability of the dairies producing 60 percent or more of the US raw milk production should be of significant interest to USDA. If the largest dairies making most of the milk aren’t going to be profitable due to a structural change in Federal order milk price formulas – such as an excessive increase in the make allowances, then it would appear there is a significant risk to the US milk supply.

The following are my estimates of the impact on the US All-Milk Price average from the NMPF and IDFA make allowance proposed increases. The Class III and IV milk price impacts utilize the proposed changes in the make allowance impacting each class price and determine the decrease in the milk price, all other formula factors, including cheese, butter, nonfat dry milk and whey prices, being the same. Although we know this later factor not to be realistic, holding these prices constant allows us to calculate the structural change to Class prices that result from the various proposals to increase the make allowances.

Also, not including other proposed formula changes provides an estimate of the milk price change stemming only from an increase in make allowances.

To determine the estimated impact on the average US milk price, I use the current Class I mover calculation which results in a Class I price impact that is a 50/50 split between the change in the Class III and IV prices resulting from the proposed make allowance increases. Here again, I am holding other factors constant. I then multiply the declines in Class prices occurring from the structural changes to the class price formulas by a Class I utilization of 20 percent, a Class II utilization of 10 percent, a Class III utilization of 55 percent and a Class IV utilization of 15 percent. These are DFA’s estimates of US utilization of milk. Others can offer their own milk price impact estimates, but I believe those I am using are very representative of the change in milk prices that would occur upon the implementation of any of the make allowance proposals.

| DFA's Estimated All-Milk Price Impact of Various Make Allowance Increases | | | |
|--|--------------------|-----------------|-----------------------|
| <u>Proposal</u> | <u>Class III</u> | <u>Class IV</u> | <u>All-Milk Price</u> |
| | \$/cwt of milk | | |
| NMPF | (\$0.58) | (\$0.52) | (\$0.56) |
| | Cumulative by Year | | |
| IDFA Yr 1 | (\$0.76) | (\$0.66) | (\$0.73) |
| IDFA Yr 2 | (\$1.01) | (\$0.89) | (\$0.97) |
| IDFA Yr 3 | (\$1.27) | (\$1.11) | (\$1.21) |
| IDFA Yr 4 | (\$1.52) | (\$1.33) | (\$1.45) |

The NMPF proposal will have a more modest \$.56 per hundredweight impact on farm milk prices, while, by year four, the IDFA proposal will, cumulatively, reduce milk prices by more than \$1.45 per cwt. The IDFA proposed change is greater than the average profitability of the average US dairy farm and the two largest size dairy farm groups based on the USDA information. For the two largest sized dairy farm groups about 7 or 8 years out of 11, the net farm income averaged less than \$1.45 per hundredweight. For the All Sizes group, it occurred in 10 of the 11 years.⁵

It is DFA’s view that implementation of the IDFA proposal would result in a much more rapid consolidation of the US dairy farming sector and threaten the financial stability of the largest US dairy farms producing most of the milk and create credit related issues with feed companies and the agricultural lending industry. The implementation of the IDFA proposal will lead to severe disorderly marketing conditions that could undermine the ability to adequately supply consumers with fresh fluid milk and it must be rejected by USDA.

⁵ I note that dairy farmers producing less than 5 million pounds of milk annually and covered by the DMC’s \$9.50 per hundredweight margin insurance coverage may be able to avoid the bulk of their loss in profitability stemming from make allowance changes. Since the ensuing result would be, using the \$1.45 impact on milk prices, a \$1.45 reduction in the US All-Milk price the payout on the DMC \$9.50 coverage may increase by \$1.45 per cwt. I also note that this would be a de facto wealth transfer from the US Treasury to the support of dairy manufacturing plants and US consumers that buy Class I and Class II products.

Accounting Firm Data

Frazer, LLP (Frazer) and Nietzke & Faupel P.C (NF) are private accounting firms that offer accounting services to dairy farms. As part of their services, they aggregate accounting data from their dairy farm clients and publish averages for a variety of revenue and cost factors, in some cases by region and in some cases by farm size. This information includes net profitability. Their clients utilize the published averages as benchmarks to compare against their own dairies. Frazer and NF have provided NMPF permission to enter their benchmark data into the record. Leland Kootstra a partner in Frazer and Jeff Bushey a partner in Nietske & Faupel will appear in this proceeding to discuss their data and methodologies. We present their publications that provide full year information for the years 2003 through 2022 and provide an Excel spreadsheet with data keyed in by DFA for each of those years and for each of their sub regions. Frazer’s main clientele are large dairies in the western US and NF primarily works with large dairy farms in Michigan and Ohio. Their data sets would be representative of the 1,000 or more cow data in the USDA Milk Cost of Production Estimates. We present this information to supplement the data from USDA’s Milk Cost of Production Estimates.

The Frazer information comes from three of their publications and are Exhibits NMPF 25A, 25C and 25E. A summary of their data is shown in Appendix 1 that is at the end of my testimony. The following chart can be used as a guide to identify where the data in Appendix 1 is located.

| Frazer, LLP Dairy Farm Operating Trends Data Identification | | | |
|--|---|---------------------------------------|--|
| <u>Region</u> | <u>December 31 of 2016-2022*</u> | <u>December 31 of 2009-2015**</u> | <u>December 31 of 2003-2008***</u> |
| | <u>publication's page number of data presented in spreadsheet</u> | | |
| Southern California | 15-16 | 14 | 13-14 |
| San Joaquin Valley | 21-22 | 22 | 22-23 |
| Kern County | 27-28 | 30 | 31-32 |
| Arizona | 33-34 | 38 | 40-41 |
| New Mexico | 45-46 | 54 | 58-59 |
| Panhandle | 51-52 | 61 | 67-68 |
| Pacific Northwest | 57-58 | 69 | N.A. |

* Dairy Farm Operating Trends, December 31, 2022, by Frazer, LLP
 ** Dairy Farm Operating Trends, December 31, 2015, by Frazer, LLP
 **** Dairy Farm Operating Trends, December 31, 2009, by Frazer, LLP

The information in the following data was taken from the Frazer and NF reports we have entered into the record. It identifies “Total Cost of Operations” and “Income from dairy operations” for Frazer for seven regions. Those seven regions are So CA being Southern California, JSV CA being San Joaquin Valley California, Kern CA being Kern County California, AZ being Arizona, NM being New Mexico, TX PH being Texas Panhandle, and N West being the Pacific Northwest. We haven’t included Frazer’s Idaho information in our comparisons since Idaho is not include in a Federal order. The MI & OH data is from NF and it identifies “Total Operating Costs and Expenses” and “Income from Operations” for their clients.

Milk production costs on US dairy farms have increased significantly since 2006 – the last year of data used to determine Federal order make allowance. The following table identifies cost of production from the Frazer and NF data. It compares production costs in 2006 to 2022. It shows very significant cost of production increases, on average, on their client’s dairies ranging from just shy of \$7 per cwt in Michigan/Ohio to almost \$12 per cwt in Southern California – with percentage increases ranging from 46 percent to 84 percent.

As it is recognized that average costs of manufacturing dairy products has increased over that time period, it also needs to be recognized that the average cost of producing milk has increased substantially as well. Dairy farm costs of production have not changed much this year. However, the milk price has changed markedly. In May 2022, the Class III price peaked at \$25.21 per cwt and the US All-Milk price peaked at \$27.30 per cwt. In June of 2023, the Class III price was \$10.30 lower at \$15.21 and the US All Milk price was \$9.40 lower at \$17.90. The June All-Milk Price was significantly below the average costs of producing milk.

| Region | 2006 | 2022* | Change | |
|--------------------------------|-------------------------|---------|---------|---------|
| | | | Total | Percent |
| | dollars per cwt of milk | | | |
| Southern California | \$14.11 | \$25.92 | \$11.81 | 84% |
| San Joaquin Valley California | \$13.70 | \$21.01 | \$7.31 | 53% |
| Kern County California | \$13.39 | \$23.54 | \$10.15 | 76% |
| Arizona | \$14.65 | \$24.49 | \$9.84 | 67% |
| New Mexico | \$13.23 | \$21.09 | \$7.86 | 59% |
| Texas Panhandle | \$14.11 | \$25.41 | \$11.30 | 80% |
| Northwestern US | N.A. | \$23.70 | N.A. | N.A. |
| Michigan/Ohio (Nietzke-Faupel) | \$15.16 | \$22.09 | \$6.93 | 46% |

* For 2022, "Farming Operations, net" was subtracted from "Total Cost of Operations". For 2006, Frazer did not provide this information in a separate line item and incorporated it into the "Total Cost of Operations".

The following chart shows dairy farm net profit from the Accountant’s data and it shows a tremendous amount of volatility in profitability.

| Frazer LP Net Income and Nietske & Faupel (MI & OH) Net Income | | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|--------|----------|
| Year | So CA | SJV CA | Kern CA | AZ | NM | TX PH | N West | MI & OH |
| dollars per hundredweight of milk | | | | | | | | |
| 2003 | (\$0.14) | \$0.02 | | (\$0.49) | (\$0.11) | | | |
| 2004 | \$2.64 | \$2.52 | | \$2.86 | \$2.31 | | | |
| 2005 | \$1.00 | \$1.52 | | \$1.27 | \$1.09 | | | |
| 2006 | (\$1.38) | (\$1.50) | (\$0.87) | (\$1.33) | (\$0.72) | (\$0.99) | | (\$0.35) |
| 2007 | \$2.80 | \$3.48 | \$4.16 | \$3.37 | \$3.63 | \$3.15 | | \$3.19 |
| 2008 | (\$1.64) | (\$0.65) | (\$0.20) | \$0.39 | \$1.10 | \$1.12 | | \$0.30 |
| 2009 | (\$3.93) | (\$4.43) | (\$4.20) | (\$4.06) | (\$3.04) | (\$3.73) | | (\$2.80) |
| 2010 | \$0.36 | \$0.63 | \$1.19 | \$1.14 | \$0.87 | \$0.89 | \$0.45 | \$1.17 |
| 2011 | \$0.00 | \$1.61 | \$3.02 | \$2.06 | \$1.79 | \$2.81 | \$2.99 | \$3.42 |
| 2012 | (\$1.58) | (\$0.40) | (\$0.18) | (\$0.21) | (\$0.74) | \$0.48 | \$1.07 | \$1.16 |
| 2013 | \$0.46 | \$1.06 | \$1.80 | \$0.94 | \$1.18 | \$0.97 | \$1.57 | \$2.63 |
| 2014 | \$5.26 | \$5.59 | \$6.45 | \$5.85 | \$4.82 | \$6.22 | \$5.15 | \$5.92 |
| 2015 | (\$0.02) | (\$0.54) | \$0.46 | (\$0.10) | (\$0.72) | \$1.00 | \$0.50 | \$0.99 |
| 2016 | (\$0.15) | (\$0.92) | (\$0.90) | (\$0.80) | (\$1.88) | \$0.16 | \$0.97 | \$0.04 |
| 2017 | \$0.23 | \$0.57 | \$1.15 | (\$0.25) | \$0.70 | \$1.63 | \$1.93 | \$1.18 |
| 2018 | (\$0.83) | (\$0.30) | \$0.53 | (\$2.55) | (\$2.28) | (\$0.58) | \$0.89 | (\$0.48) |
| 2019 | \$1.32 | \$0.94 | \$2.12 | (\$1.65) | (\$3.22) | \$2.14 | \$2.23 | \$1.35 |
| 2020 | \$1.60 | \$0.93 | \$1.32 | (\$0.94) | (\$0.58) | \$5.94 | \$1.17 | \$1.43 |
| 2021 | \$0.69 | \$0.57 | \$0.34 | (\$0.03) | (\$0.24) | (\$0.77) | \$0.69 | \$0.96 |
| 2022 | \$3.06 | \$4.03 | \$2.90 | \$4.59 | \$3.13 | \$1.65 | \$3.59 | \$5.50 |

The following chart counts the number of times that a region’s profit was less than zero and less than \$1.45 per hundredweight. The \$1.45 is my estimate of the IDFA proposed decrease in dairy farm milk prices in the fourth year of its make allowance proposal implementation.

| | So CA | SJV CA | Kern CA | AZ | NM | TX PH | N West | MI & OH |
|--|-------|--------|---------|-----|-----|-------|--------|---------|
| Years of reported average losses | 8 | 7 | 5 | 11 | 10 | 4 | 0 | 3 |
| Number of years profit \$1.45/cwt or less | 15 | 14 | 11 | 15 | 15 | 10 | 7 | 12 |
| Additional years of losses if a \$1.45/cwt decline in milk price | 7 | 7 | 6 | 4 | 5 | 6 | 7 | 9 |
| Years of Data | 20 | 20 | 17 | 20 | 20 | 17 | 13 | 17 |
| % of years profit \$1.45/cwt or less | 75% | 70% | 65% | 75% | 75% | 59% | 54% | 71% |

For Southern California, Frazer reports 20 years of data. In eight of those year, its clients, on average, lost money on their dairy operations. If in any year, the milk price was reduced an additional \$1.45 per hundredweight, their clients on average would have lost money in 15 years – seven more years – almost doubling the incidence of loss. For the 20 years, a \$1.45 per hundredweight decrease in the milk price would have resulted in losses in 75 percent of the years. For the NF data in MI & OH, there would have been 9 additional years of losses.

The following chart identifies the simple average of annualized Net Income From Dairy Operations for 2002 -2022 and 2015 – 2022, the same time periods as was shown for the USDA data.

| Frazer LP Average Net Income, by Time Period, by Region | | |
|--|------------------|------------------|
| | <u>2012-2022</u> | <u>2015-2022</u> |
| Southern California | \$0.91 | \$0.74 |
| San Joaquin Valley California | \$1.05 | \$0.66 |
| Kern County California | \$1.45 | \$0.99 |
| Arizona | \$0.44 | (\$0.22) |
| New Mexico | \$0.02 | (\$0.64) |
| Texas Panhandle | \$1.71 | \$1.40 |
| Northwestern US | \$1.80 | \$1.50 |

The Frazer data shows a tremendous range in average Net Income from \$.02 per hundredweight from 2012-2022 in New Mexico to \$1.80 per hundredweight in the Northwestern US. The more recent results from 2015 – 2022 shows lower profitability for each of the regions, which is similar to the USDA data for the two largest sizes of dairy farms.

The NF data for Michigan and Ohio shows a \$1.88 per hundredweight net profit for 2012-2022 and a \$1.39 per hundredweight profit for 2015-2022.

Too often, the view of structural changes to milk prices that emanate from make allowance increases are viewed against the milk price. A dairy farm milk price of \$20 may seem to be able to support a structural decrease of \$1.45 per hundredweight as the change represents about 7 percent of the milk price. This belies the true economic impact of importance – the impact on a dairy farm’s profitability. In this context, the most important context, a \$1.45 per hundredweight milk price change at worst, wipes out the long-term average profitability on many dairy farms across the US and at best, for some of the larger dairies, as for example in Michigan and Ohio, reduces their 2012-2022 average profitability by 77 percent.

The accounting firm information affirms the data from USDA relative to their dairy farm cost of production and profitability data. A structural milk price decrease in line with the IDFA and WCMA make allowance proposals will have a profound negative impact dairy farm businesses, the families relying on income from the dairies, and on the US milk supply.

We believe that the impact on average profitability is compelling and needs to factor into the decision the Secretary of Agriculture makes relative to structural changes to Federal order milk prices stemming from an increase in make allowances. DFA and NMPF believe this information is sufficient to limit any make allowance change to the increases proposed by NMPF.

Price vs Cost vs Cost of Production vs Profitability

I make a distinction here between price and cost and average cost of production. Price is the value of the good or service. It can be measured over time to identify price increases or decreases. Increases are commonly referred to as inflation. The Producer Price Index series is an example of a survey of prices and from it there can be representations made about price inflation over time. Prices and costs are

different. For example, the wage rate – or price of the labor input – may increase. However, that is not a representation about how a businesses’ cost of labor is changing. For example, as wage rates increase, the hours worked may decrease. This simple example identifies how businesses change their input usage as prices change. The two of these aspects together can be viewed to look at the total cost of labor. However, since there can be input substitution, this would mean that the cost of labor would change differently over time than the price of labor. Furthermore, businesses, may, at the same time, change their output. For example, less labor may be used due to increased mechanization that leads to increased output. Cost is a combination of price, input usage and output; it is this combination that represents the average cost of production. It is this average cost of production that is relevant in this hearing.

We do not have confidence in the average manufacturing cost of production that will be presented in this hearing from private surveys. We believe USDA needs to discount these costs. The wide spread requests by industry participants to have Congress legislate authority to USDA to survey these costs is ample evidence of the lack of universal confidence in the private data surveys.

More importantly, what is more relevant is average profitability which combines revenue with cost. Sorely lacking from the analysis of manufacturing input costs is a review of profitability at manufacturing plants. We have provided historical dairy farmer profitability information collected by USDA and accounting firms using Generally Accepted Accounting Principles. We believe this data to be highly credible and important for USDA to utilize in determining the appropriate change in make allowances.

US Cheese Manufacturing Investments Continue

Over the last few years, we have seen new cheddar cheese plants built in Michigan, Wisconsin, Texas, and production expansion in South Dakota. Additionally, new cheese plants are being built in Kansas and New York. All of these plants were built or planned based on the current make allowances used to determine Federal Order milk prices. It is self-evident in economics, that all of these milk plants were built based on an expected profitable return. This would suggest that large, efficient and modern cheese manufacturing facilities have developed means of profitability despite a fixed cheese make allowance dating back to 2008. Increases in make allowances will greatly benefit the profitability of the largest and most efficient milk plants that operate at the lowest cost of production. Really large make allowance increases will shift income from dairy farmers to large and efficient milk plants that do not need that kind of financial support provided them by dairy farmers.

Extreme Milk Production Financial Losses for 2023

It is important to include in the record the tremendous change in profitability of dairy farms over the last 12 or so months. For most dairy farmers, 2022 was a very financially profitable year. The data we share shows this. Unfortunately, this hearing occurs at a time where significant losses are occurring on most US dairy farms. Due to changes in US and international dairy demand and changing milk production dynamics in Europe and China, milk prices have declined substantially. In 2022, the US average All-Milk price peaked at \$27.20 per cwt in May. The June 2023 All-Milk prices was \$17.90 - **\$9.30 per cwt lower**. Dairy farm input prices, costs and average costs have change little from their 2022 record high levels. Today, US dairy farmers producing a significant majority of the US milk supply are

incurring losses of about \$3 per cwt or more and have been incurring these losses since the beginning of spring, or earlier.

Incidence of Negative Other Solids Prices

The aggressively high whey powder make allowances proposed by IDFA and WCMA will create disorderly marketing conditions by increasing the frequency that the other solids price will be negative. Since a clear majority of Federal order milk is pooled in multiple component pricing orders, producers under those orders will see their milk checks carrying a confusing and exacerbating **negative price and a deduction** for other solids on a much more frequent basis.

Since Federal Order reform and through May 2023, there have been 11 occurrences of negative other solids prices (3.9% of the 280 months). The following table compares proposed whey make allowance values to monthly USDA whey powder prices used to determine the other solids price, since January 2015. You can see, that in year 1 alone, IDFA's proposed make allowance would have resulted in negative other solids prices 11 times between January 2015 and May 2023 (100 months), if that make allowance value had been part of the other solids pricing formula. That would be equal to the number of occurrences in total in the 280 months since Federal Order reform pricing was implemented. The table looks at the incidences of negative other solids prices for that 100-month time-period since 2015 for each proposed level. As can be seen, by year four, the incidence frequency could have been 22 percent of the months if the IDFA proposal had been.

| <u>Proposal</u> | <u>Proposed Make Allowance \$/lb</u> | <u>Since January 2015 Months Higher than USDA's Whey Price</u> | <u>Percent of Months</u> |
|-----------------|--------------------------------------|--|--------------------------|
| NMPF | \$0.2300 | 0 | 0% |
| IDFA Year 1 | \$0.2574 | 11 | 11% |
| IDFA Year 2 | \$0.2768 | 16 | 16% |
| IDFA Year 3 | \$0.2963 | 17 | 17% |
| IDFA Year 4 | \$0.3157 | 22 | 22% |

Historical Precedent

Federal order make allowances were first developed during Federal Order Reform and effective on January 1, 2000. A year later, the make allowances were updated based on evidence from a May 2000 hearing, and then again in 2008 – based on evidence provided in a 2006 hearing. Data from multiple sources was used to determine Federal order make allowances in each proceeding. Additionally, the time between the hearings was relatively short and price inflation was relatively tame. The resulting changes from these hearings had modest changes in farm level milk prices – with the largest impact of \$.35 per cwt resulting from the 2006 hearing.

For each of these proceedings, USDA relied on multiple sources of data. Principally, a USDA cost of manufacturing study (a.k.a. the Charlie Lying studies) and California's audited data from their state milk marketing order program. In 2006, a third set of data, the Cornell manufacturing survey was used. In

each case, USDA used information from multiple data sources, which in some cases was supported by individual business data. These rich sources of information provided USDA with a relevant set of cost data to form the basis of their decisions. In no prior case though, did USDA rely solely on a non-governmental source of information, or on changes in input price relationships developed from the Federal Bureau of Labor statistics data.

Unfortunately, we now have a significant problem with the dairy farmers' and their cooperatives' confidence in the data available to consider a make allowance adjustment. No longer do we have a USDA study and analysis nor do we have the California information. We are limited to two private surveys from the University of Wisconsin, one, sponsored by USDA but that had limited cheese manufacturer participation – especially with larger cheese plants – and questionable cost allocations at butter powder plants, and another one sponsored by IDFA who has a biased interest in a significant increase in make allowances and that was administered during the peak of the US and global price inflation environment. In efforts to buttress the obvious shortfalls of the data, input price indexes have been used to estimate production costs. These efforts have their own credibility issues since input consumption and production are fixed at those factors that existed years ago – thus assuming there are no economies of scale or size from the larger milk plants built over the last few years, no capital investments made at plants to reduce input usage and improve production efficiencies and that none of the plants hedged input prices.

It is for these reasons that NMPF and its member cooperatives, the American Farm Bureau and others are requesting Congressional action to provide Federal authority to USDA to conduct relevant dairy manufacturing plant surveys to identify input prices, input utilizations, capital investments, production yields and other factors, and audit the information, to provide the dairy industry reliable and unbiased information to use when considering changes to dairy producer milk prices.

Conclusion

There is no doubt that plant input prices are higher today than they were in 2006. There is no doubt that the conversion of milk to manufactured products yields more than occurred in 2006. There is no doubt that a larger proportion of manufacturing output is produced by modern and more cost-efficient manufacturing plants than occurred in 2006. Despite this knowledge, there is significant doubt about the conversion of these factors into a reliable and accepted cost of production statistic. Additionally, there is doubt about the relevancy of observations that should be used to determine this value – only large efficient plants, all plants surveyed, all plants but high and low cost “outliers”, or other combinations.

NMPF member cooperatives represent all relevant segments of the US dairy industry. Its members operate significant manufacturing business across all cheese categories, butter and powder. Its members' produce a clear majority of the butter and powder manufactured in the US. Additionally, its member-cooperatives market the milk and write the milk checks for their farmer-owners which collectively represents more than 75 percent of the US milk production. The NMPF member cooperatives are uniquely invested in a manner that allows them to see all sides of the issues around make allowances and Class price formulas.

The NMPF member cooperatives have meticulously deliberated over the weighty and important issues surrounding an appropriate make allowance change. We agree that the average cost of manufacturing

dairy products have gone up since 2006. However, we struggle with knowing how much these costs have gone up due to the lack of credible and reliable information. Despite the best efforts of many in the dairy industry, credible and reliable information, that culminates in reducing dairy farmer milk prices, does not exist. Dairy farmers see this and understand this. To make an aggressive make allowance change using this flawed data will undermine the confidence dairy farmers have in the Federal order system.

If that information existed, and it suggested a make allowance change of more than a few cents per pound, we would be restrained from advocating for the full implementation of the change due to the impact on milk prices and profitability of our farmer-owners. Again, no prior Class price formula or make allowance change has impacted farmer milk checks by more than about \$.35 per hundredweight.

To maintain dairy farmer confidence in the credibility of the administrative process of changing the make allowance, and in the absence of robust, credible, and audited manufacturing cost information from a Federal government source, we believe that implementation of the NMPF proposed make allowance increases are the appropriate adjustments to make, all things considered. Our suggested changes will lower farmer milk prices by about \$.50 per hundredweight, which we believe to be an acceptable balance between the milk price impact and manufacturer cost recovery.

Thank you for permitting DFA to provide this testimony in this significantly important matter.

Appendix 1

Summary of Frazer, LP Dairy Farm Operating Trends Data, Annual⁶

| Year | Southern California | | | | | | | | | | | San Joaquin Valley | | | | | | | | | | |
|------|---------------------|----------------------|-------------|------------|-------------|-------------------|-------------|-------------|----------------------------------|-------------------------|------------|--------------------|----------------------|-------------|------------|-------------|-------------------|-------------|-------------|-----------------------|-------------------------|------------|
| | Revenue | | | Costs | | | | Total costs | Net Income from Dairy Operations | Farming operations, net | Net income | Revenue | | | Costs | | | | Total costs | Net Income from Dairy | Farming operations, net | Net income |
| | Milk sales | Calf and other sales | Total sales | Feed costs | Labor costs | Replacement costs | Other costs | | | | | Milk sales | Calf and other sales | Total sales | Feed costs | Labor costs | Replacement costs | Other costs | | | | |
| 2003 | \$12.17 | \$0.17 | \$12.34 | \$6.11 | \$1.66 | \$1.30 | \$3.41 | \$12.48 | (\$0.14) | | (\$0.14) | \$11.97 | \$0.48 | \$12.45 | \$6.05 | \$1.32 | \$1.27 | \$3.79 | \$12.43 | \$0.02 | | \$0.02 |
| 2004 | \$15.48 | \$0.38 | \$15.86 | \$6.56 | \$1.83 | \$1.08 | \$3.75 | \$13.22 | \$2.64 | | \$2.64 | \$15.30 | \$0.42 | \$15.72 | \$6.72 | \$1.40 | \$1.08 | \$4.00 | \$13.20 | \$2.52 | | \$2.52 |
| 2005 | \$14.75 | \$0.42 | \$15.17 | \$7.05 | \$1.95 | \$1.13 | \$4.04 | \$14.17 | \$1.00 | | \$1.00 | \$14.45 | \$0.25 | \$14.70 | \$6.64 | \$1.41 | \$1.00 | \$4.13 | \$13.18 | \$1.52 | | \$1.52 |
| 2006 | \$12.25 | \$0.48 | \$12.73 | \$6.90 | \$1.86 | \$1.05 | \$4.30 | \$14.11 | (\$1.38) | | (\$1.38) | \$11.82 | \$0.38 | \$12.20 | \$6.47 | \$1.48 | \$1.07 | \$4.68 | \$13.70 | (\$1.50) | | (\$1.50) |
| 2007 | \$18.46 | \$0.23 | \$18.69 | \$8.31 | \$1.83 | \$1.24 | \$4.51 | \$15.89 | \$2.80 | | \$2.80 | \$18.48 | \$0.35 | \$18.83 | \$7.84 | \$1.44 | \$1.04 | \$5.03 | \$15.35 | \$3.48 | | \$3.48 |
| 2008 | \$17.22 | \$0.28 | \$17.50 | \$10.69 | \$1.90 | \$1.60 | \$4.95 | \$19.14 | (\$1.64) | | (\$1.64) | \$16.84 | \$0.14 | \$16.98 | \$9.38 | \$1.54 | \$1.19 | \$5.52 | \$17.63 | (\$0.65) | | (\$0.65) |
| 2009 | \$12.42 | \$0.46 | \$12.88 | \$8.74 | \$1.86 | \$1.65 | \$4.56 | \$16.81 | (\$3.93) | | (\$3.93) | \$11.71 | \$0.23 | \$11.94 | \$8.81 | \$1.48 | \$1.30 | \$4.78 | \$16.37 | (\$4.43) | | (\$4.43) |
| 2010 | \$15.68 | \$0.23 | \$15.91 | \$7.66 | \$1.78 | \$1.78 | \$4.33 | \$15.55 | \$0.36 | | \$0.36 | \$14.94 | \$0.10 | \$15.04 | \$7.46 | \$1.40 | \$1.13 | \$4.42 | \$14.41 | \$0.63 | | \$0.63 |
| 2011 | \$18.85 | \$0.44 | \$19.29 | \$11.64 | \$1.72 | \$1.54 | \$4.39 | \$19.29 | \$0.00 | | \$0.00 | \$18.68 | \$0.32 | \$19.00 | \$10.37 | \$1.45 | \$1.18 | \$4.39 | \$17.39 | \$1.61 | | \$1.61 |
| 2012 | \$16.91 | \$0.26 | \$17.17 | \$11.99 | \$1.67 | \$1.44 | \$3.65 | \$18.75 | (\$1.58) | | (\$1.58) | \$16.66 | \$0.34 | \$17.00 | \$11.50 | \$1.43 | \$1.15 | \$4.08 | \$18.16 | (\$1.16) | \$0.76 | (\$0.40) |
| 2013 | \$18.90 | \$0.27 | \$19.17 | \$11.80 | \$1.71 | \$1.30 | \$3.90 | \$18.71 | \$0.46 | | \$0.46 | \$18.86 | \$0.31 | \$19.17 | \$12.13 | \$1.41 | \$1.16 | \$4.13 | \$18.82 | \$0.35 | \$0.71 | \$1.06 |
| 2014 | \$22.79 | \$0.93 | \$23.72 | \$11.45 | \$1.87 | \$0.93 | \$4.23 | \$18.48 | \$5.24 | \$0.02 | \$5.26 | \$22.29 | \$0.63 | \$22.92 | \$11.54 | \$1.45 | \$0.65 | \$4.30 | \$17.94 | \$4.98 | \$0.61 | \$5.59 |
| 2015 | \$16.03 | \$1.08 | \$17.11 | \$10.25 | \$1.92 | \$1.00 | \$3.98 | \$17.15 | (\$0.04) | \$0.02 | (\$0.02) | \$16.39 | \$0.79 | \$17.18 | \$10.87 | \$1.80 | \$0.73 | \$4.75 | \$18.15 | (\$0.97) | \$0.43 | (\$0.54) |
| 2016 | \$15.91 | \$0.54 | \$16.45 | \$9.02 | \$2.16 | \$1.65 | \$3.79 | \$16.62 | (\$0.17) | \$0.02 | (\$0.15) | \$14.86 | \$0.30 | \$15.16 | \$8.68 | \$1.72 | \$1.49 | \$4.45 | \$16.34 | (\$1.18) | \$0.26 | (\$0.92) |
| 2017 | \$17.57 | \$0.46 | \$18.03 | \$9.37 | \$2.28 | \$2.04 | \$4.11 | \$17.80 | \$0.23 | | \$0.23 | \$16.88 | \$0.45 | \$17.33 | \$8.88 | \$1.82 | \$1.63 | \$4.75 | \$17.08 | \$0.25 | \$0.32 | \$0.57 |
| 2018 | \$16.51 | \$0.47 | \$16.98 | \$9.99 | \$2.04 | \$1.72 | \$4.06 | \$17.81 | (\$0.83) | | (\$0.83) | \$15.52 | \$0.40 | \$15.92 | \$8.97 | \$1.66 | \$1.49 | \$4.65 | \$16.77 | (\$0.85) | \$0.55 | (\$0.30) |
| 2019 | \$19.50 | \$0.77 | \$20.27 | \$10.67 | \$2.28 | \$1.75 | \$4.25 | \$18.95 | \$1.32 | | \$1.32 | \$18.19 | \$0.46 | \$18.65 | \$9.54 | \$1.90 | \$1.59 | \$5.09 | \$18.12 | \$0.53 | \$0.41 | \$0.94 |
| 2020 | \$18.49 | \$1.70 | \$20.19 | \$10.41 | \$2.28 | \$1.51 | \$4.39 | \$18.59 | \$1.60 | | \$1.60 | \$17.41 | \$0.78 | \$18.19 | \$9.86 | \$1.86 | \$1.47 | \$4.72 | \$17.91 | \$0.28 | \$0.65 | \$0.93 |
| 2021 | \$19.71 | \$0.75 | \$20.46 | \$11.84 | \$2.31 | \$1.26 | \$4.36 | \$19.77 | \$0.69 | | \$0.69 | \$18.49 | \$0.61 | \$19.10 | \$10.92 | \$1.83 | \$1.60 | \$4.81 | \$19.16 | (\$0.06) | \$0.63 | \$0.57 |
| 2022 | \$26.69 | \$2.29 | \$28.98 | \$15.94 | \$2.70 | \$1.18 | \$6.10 | \$25.92 | \$3.06 | | \$3.06 | \$24.53 | \$0.51 | \$25.04 | \$13.72 | \$2.11 | \$1.28 | \$5.08 | \$22.19 | \$2.85 | \$1.18 | \$4.03 |

| Year | Kern County | | | | | | | | | | | Arizona | | | | | | | | | | |
|------|-------------|----------------------|-------------|------------|-------------|-------------------|-------------|-------------|-----------------------|-------------------------|------------|------------|----------------------|-------------|------------|-------------|-------------------|-------------|-------------|-----------------------|-------------------------|------------|
| | Revenue | | | Costs | | | | Total costs | Net Income from Dairy | Farming operations, net | Net income | Revenue | | | Costs | | | | Total costs | Net Income from Dairy | Farming operations, net | Net income |
| | Milk sales | Calf and other sales | Total sales | Feed costs | Labor costs | Replacement costs | Other costs | | | | | Milk sales | Calf and other sales | Total sales | Feed costs | Labor costs | Replacement costs | Other costs | | | | |
| 2003 | | | | | | | | | | | | \$12.30 | \$0.33 | \$12.63 | \$5.91 | \$1.29 | \$1.68 | \$4.24 | \$13.12 | (\$0.49) | | (\$0.49) |
| 2004 | | | | | | | | | | | | \$16.06 | \$0.55 | \$16.61 | \$6.35 | \$1.36 | \$1.63 | \$4.41 | \$13.75 | \$2.86 | | \$2.86 |
| 2005 | | | | | | | | | | | | \$15.25 | \$0.50 | \$15.75 | \$6.51 | \$1.40 | \$1.64 | \$4.93 | \$14.48 | \$1.27 | | \$1.27 |
| 2006 | \$12.21 | \$0.31 | \$12.52 | \$6.89 | \$1.37 | \$1.21 | \$3.92 | \$13.39 | (\$0.87) | | (\$0.87) | \$12.92 | \$0.40 | \$13.32 | \$6.28 | \$1.39 | \$1.42 | \$5.56 | \$14.65 | (\$1.33) | | (\$1.33) |
| 2007 | \$18.53 | \$0.35 | \$18.88 | \$7.89 | \$1.33 | \$1.19 | \$4.31 | \$14.72 | \$4.16 | | \$4.16 | \$19.87 | \$0.40 | \$20.27 | \$7.85 | \$1.54 | \$1.78 | \$5.73 | \$16.90 | \$3.37 | | \$3.37 |
| 2008 | \$17.37 | \$0.14 | \$17.51 | \$10.50 | \$1.36 | \$1.25 | \$4.60 | \$17.71 | (\$0.20) | | (\$0.20) | \$18.11 | \$0.30 | \$18.41 | \$9.07 | \$1.59 | \$1.72 | \$5.64 | \$18.02 | \$0.39 | | \$0.39 |
| 2009 | \$12.27 | \$0.10 | \$12.37 | \$9.45 | \$1.38 | \$1.42 | \$4.32 | \$16.57 | (\$4.20) | | (\$4.20) | \$12.58 | \$0.25 | \$12.83 | \$8.46 | \$1.60 | \$1.95 | \$4.88 | \$16.89 | (\$4.06) | | (\$4.06) |
| 2010 | \$15.31 | \$0.15 | \$15.46 | \$7.75 | \$1.31 | \$1.24 | \$3.97 | \$14.27 | \$1.19 | | \$1.19 | \$16.47 | \$0.11 | \$16.58 | \$7.49 | \$1.58 | \$1.49 | \$4.88 | \$15.44 | \$1.14 | | \$1.14 |
| 2011 | \$19.02 | \$0.19 | \$19.21 | \$9.78 | \$1.31 | \$1.24 | \$3.86 | \$16.19 | \$3.02 | | \$3.02 | \$20.74 | \$0.28 | \$21.02 | \$10.61 | \$1.67 | \$1.29 | \$5.39 | \$18.96 | \$2.06 | | \$2.06 |
| 2012 | \$16.97 | \$0.25 | \$17.22 | \$12.15 | \$1.25 | \$1.20 | \$3.92 | \$18.52 | (\$1.30) | \$1.12 | (\$0.18) | \$18.48 | \$0.32 | \$18.80 | \$11.49 | \$1.89 | \$1.02 | \$4.64 | \$19.04 | (\$0.24) | \$0.03 | (\$0.21) |
| 2013 | \$19.13 | \$0.23 | \$19.36 | \$12.52 | \$1.29 | \$1.20 | \$3.85 | \$18.86 | \$0.50 | \$1.30 | \$1.80 | \$20.10 | \$0.35 | \$20.45 | \$11.68 | \$1.89 | \$1.02 | \$4.96 | \$19.55 | \$0.90 | \$0.04 | \$0.94 |
| 2014 | \$22.46 | \$0.45 | \$22.91 | \$11.77 | \$1.28 | \$0.77 | \$4.00 | \$17.82 | \$5.09 | \$1.36 | \$6.45 | \$23.35 | \$1.20 | \$24.55 | \$10.74 | \$2.06 | \$0.69 | \$5.30 | \$18.79 | \$5.76 | \$0.09 | \$5.85 |
| 2015 | \$15.81 | \$0.69 | \$16.50 | \$11.09 | \$1.40 | \$0.80 | \$3.89 | \$17.18 | (\$0.68) | \$1.14 | \$0.46 | \$16.33 | \$0.87 | \$17.20 | \$9.49 | \$1.97 | \$0.87 | \$5.01 | \$17.34 | (\$0.14) | \$0.04 | (\$0.10) |
| 2016 | \$15.34 | \$0.34 | \$15.68 | \$9.92 | \$1.48 | \$1.22 | \$4.11 | \$16.73 | (\$1.05) | \$0.25 | (\$0.90) | \$15.56 | \$0.57 | \$16.13 | \$8.63 | \$2.03 | \$1.33 | \$5.03 | \$17.02 | (\$0.89) | \$0.09 | (\$0.80) |
| 2017 | \$17.04 | \$0.24 | \$17.28 | \$9.03 | \$1.54 | \$1.36 | \$4.28 | \$16.21 | \$1.07 | \$0.08 | \$1.15 | \$17.20 | \$0.77 | \$17.97 | \$9.03 | \$2.21 | \$1.62 | \$5.50 | \$18.36 | (\$0.39) | \$0.14 | (\$0.25) |
| 2018 | \$16.14 | \$0.75 | \$16.89 | \$9.58 | \$1.53 | \$1.39 | \$4.42 | \$16.92 | (\$0.03) | \$0.56 | \$0.53 | \$16.31 | \$0.34 | \$16.65 | \$9.40 | \$2.41 | \$1.95 | \$5.88 | \$19.64 | (\$2.99) | \$0.44 | (\$2.55) |
| 2019 | \$18.86 | \$0.29 | \$19.15 | \$10.03 | \$1.55 | \$1.42 | \$4.50 | \$17.50 | \$1.65 | \$0.47 | \$2.12 | \$18.73 | \$1.01 | \$19.74 | \$10.04 | \$2.53 | \$2.76 | \$6.16 | \$21.49 | (\$1.75) | \$0.10 | (\$1.65) |
| 2020 | \$18.58 | \$0.25 | \$18.83 | \$10.32 | \$1.62 | \$1.41 | \$4.62 | \$17.97 | \$0.86 | \$0.46 | \$1.32 | \$18.58 | \$1.05 | \$19.63 | \$9.71 | \$2.48 | \$1.67 | \$6.74 | \$20.60 | (\$0.97) | \$0.03 | (\$0.94) |
| 2021 | \$18.85 | \$0.63 | \$19.48 | \$11.93 | \$1.82 | \$1.40 | \$4.41 | \$19.56 | (\$0.08) | \$0.42 | \$0.34 | \$18.82 | \$1.86 | \$20.68 | \$11.62 | \$2.34 | \$1.31 | \$5.42 | \$20.69 | (\$0.01) | (\$0.02) | (\$0.03) |
| 2022 | \$26.04 | \$0.40 | \$26.44 | \$16.05 | \$1.85 | \$1.38 | \$5.44 | \$24.72 | \$1.72 | \$1.18 | \$2.90 | \$25.94 | \$3.14 | \$29.08 | \$14.32 | \$2.46 | \$1.31 | \$6.73 | \$24.82 | \$4.26 | \$0.33 | \$4.59 |

⁶ Frazer, LLP Dairy Farm Operating Trends, reports dated December 31, 2022, December 31, 2015 and December 31, 2009 contain the data in Appendix 1

Appendix 1, continued

Summary of Frazer, LP Dairy Farm Operating Trends Data, Annual

| Year | New Mexico | | | | | | | | | | Texas Panhandle | | | | | | | | | | | |
|------|------------|----------------------|-------------|------------|-------------|-------------------|-------------|-----------------------|-------------------------|------------|-----------------|------------|----------------------|-------------|------------|-------------|-------------------|-----------------------|-------------------------|------------|-------------|-------------|
| | Revenue | | | Costs | | | | Net Income from Dairy | Farming operations, net | Net income | Revenue | | | Costs | | | | Net Income from Dairy | Farming operations, net | Net income | | |
| | Milk sales | Calf and other sales | Total sales | Feed costs | Labor costs | Replacement costs | Other costs | | | | Total costs | Milk sales | Calf and other sales | Total sales | Feed costs | Labor costs | Replacement costs | | | | Other costs | Total costs |
| 2003 | \$11.79 | \$0.39 | \$12.18 | \$5.89 | \$1.46 | \$1.53 | \$3.41 | \$12.29 | (\$0.11) | | | | | | | | | | | | | |
| 2004 | \$14.79 | \$0.40 | \$15.19 | \$6.32 | \$1.50 | \$1.37 | \$3.69 | \$12.88 | \$2.31 | | | | | | | | | | | | | |
| 2005 | \$13.78 | \$0.49 | \$14.27 | \$6.31 | \$1.52 | \$1.09 | \$4.26 | \$13.18 | \$1.09 | | | | | | | | | | | | | |
| 2006 | \$11.86 | \$0.65 | \$12.51 | \$6.24 | \$1.52 | \$1.17 | \$4.30 | \$13.23 | (\$0.72) | | | \$12.63 | \$0.49 | \$13.12 | \$5.84 | \$1.41 | \$1.62 | \$5.24 | \$14.11 | (\$0.99) | | (\$0.99) |
| 2007 | \$18.62 | \$0.60 | \$19.22 | \$7.57 | \$1.63 | \$1.19 | \$5.20 | \$15.59 | \$3.63 | | | \$20.01 | \$0.27 | \$20.28 | \$7.50 | \$1.66 | \$1.79 | \$6.18 | \$17.13 | \$3.15 | | \$3.15 |
| 2008 | \$17.92 | \$0.29 | \$18.21 | \$9.22 | \$1.58 | \$1.20 | \$5.11 | \$17.11 | \$1.10 | | | \$19.11 | \$0.09 | \$19.20 | \$8.91 | \$1.77 | \$1.71 | \$5.69 | \$18.08 | \$1.12 | | \$1.12 |
| 2009 | \$12.83 | \$0.25 | \$13.08 | \$8.68 | \$1.56 | \$1.35 | \$4.53 | \$16.12 | (\$3.04) | | | \$13.63 | \$0.20 | \$13.83 | \$9.09 | \$1.65 | \$1.90 | \$4.92 | \$17.56 | (\$3.73) | | (\$3.73) |
| 2010 | \$17.02 | \$0.18 | \$17.20 | \$8.23 | \$1.60 | \$1.28 | \$5.22 | \$16.33 | \$0.87 | | | \$16.89 | \$0.14 | \$17.03 | \$7.85 | \$1.62 | \$1.75 | \$4.92 | \$16.14 | \$0.89 | | \$0.89 |
| 2011 | \$19.89 | \$0.29 | \$20.18 | \$10.62 | \$1.62 | \$1.12 | \$5.03 | \$18.39 | \$1.79 | | | \$20.57 | \$0.26 | \$20.83 | \$10.10 | \$1.76 | \$1.35 | \$4.81 | \$18.02 | \$2.81 | | \$2.81 |
| 2012 | \$18.31 | \$0.39 | \$18.70 | \$12.54 | \$1.70 | \$0.82 | \$5.20 | \$20.26 | (\$1.56) | \$0.82 | | \$19.05 | \$0.49 | \$19.54 | \$12.12 | \$1.65 | \$1.11 | \$4.75 | \$19.63 | (\$0.09) | \$0.57 | \$0.48 |
| 2013 | \$19.53 | \$0.43 | \$19.96 | \$12.16 | \$1.62 | \$0.82 | \$5.20 | \$19.80 | \$0.16 | \$1.02 | | \$20.65 | \$0.44 | \$21.09 | \$12.86 | \$1.65 | \$1.16 | \$5.01 | \$20.68 | \$0.41 | \$0.56 | \$0.97 |
| 2014 | \$23.46 | \$1.03 | \$24.49 | \$11.98 | \$1.81 | \$0.57 | \$6.03 | \$20.39 | \$4.10 | \$0.72 | | \$23.85 | \$0.46 | \$24.31 | \$10.79 | \$1.65 | \$0.67 | \$5.37 | \$18.48 | \$5.83 | \$0.39 | \$6.22 |
| 2015 | \$16.50 | \$0.75 | \$17.25 | \$10.39 | \$2.05 | \$0.95 | \$5.80 | \$19.19 | (\$1.94) | \$1.22 | | \$17.69 | \$0.68 | \$18.37 | \$9.45 | \$1.95 | \$1.01 | \$5.65 | \$18.06 | \$0.31 | \$0.69 | \$1.00 |
| 2016 | \$15.84 | \$0.37 | \$16.21 | \$9.18 | \$2.09 | \$1.38 | \$5.55 | \$18.20 | (\$1.99) | \$0.11 | | \$17.41 | \$0.25 | \$17.66 | \$8.25 | \$2.18 | \$1.56 | \$5.79 | \$17.78 | (\$0.12) | \$0.28 | \$0.16 |
| 2017 | \$16.75 | \$0.51 | \$17.26 | \$9.25 | \$2.09 | \$1.37 | \$5.73 | \$18.44 | (\$1.18) | \$1.88 | | \$1.77 | \$0.40 | \$18.17 | \$7.80 | \$1.84 | \$2.08 | \$4.97 | \$16.69 | \$1.48 | \$0.15 | \$1.63 |
| 2018 | \$15.61 | \$0.46 | \$16.07 | \$10.65 | \$1.91 | \$1.41 | \$5.69 | \$19.66 | (\$3.59) | \$1.31 | | \$15.92 | \$0.24 | \$16.16 | \$8.12 | \$1.87 | \$1.93 | \$5.22 | \$17.14 | (\$0.98) | \$0.40 | (\$0.58) |
| 2019 | \$17.37 | \$0.22 | \$17.59 | \$11.61 | \$2.16 | \$1.35 | \$5.69 | \$20.81 | (\$3.22) | | | \$18.97 | (\$0.04) | \$18.93 | \$8.52 | \$1.80 | \$1.74 | \$5.05 | \$17.11 | \$1.82 | \$0.32 | \$2.14 |
| 2020 | \$17.57 | \$0.30 | \$17.87 | \$10.74 | \$2.12 | \$0.97 | \$5.34 | \$19.17 | (\$1.30) | \$0.72 | | \$22.49 | \$0.46 | \$22.95 | \$9.31 | \$1.82 | \$1.67 | \$4.95 | \$17.75 | \$5.20 | \$0.74 | \$5.94 |
| 2021 | \$18.15 | \$0.16 | \$18.28 | \$10.05 | \$2.18 | \$0.63 | \$5.58 | \$18.44 | (\$0.16) | (\$0.08) | | \$19.12 | \$1.55 | \$20.67 | \$12.34 | \$2.24 | \$1.45 | \$5.67 | \$21.70 | (\$1.03) | \$0.26 | (\$0.77) |
| 2022 | \$23.88 | \$0.34 | \$24.22 | \$11.19 | \$2.26 | \$0.54 | \$6.47 | \$20.46 | \$3.76 | (\$0.63) | | \$25.45 | \$1.61 | \$27.06 | \$15.09 | \$2.24 | \$1.20 | \$6.65 | \$25.18 | \$1.88 | (\$0.23) | \$1.65 |

| Year | Pacific Northwest | | | | | | | | | | | | |
|------|-------------------|----------------------|-------------|------------|-------------|-------------------|-------------|-------------|-----------------------|-------------------------|------------|--------|--|
| | Revenue | | | Costs | | | | | Net Income from Dairy | Farming operations, net | Net income | | |
| | Milk sales | Calf and other sales | Total sales | Feed costs | Labor costs | Replacement costs | Other costs | Total costs | | | | | |
| 2003 | | | | | | | | | | | | | |
| 2004 | | | | | | | | | | | | | |
| 2005 | | | | | | | | | | | | | |
| 2006 | | | | | | | | | | | | | |
| 2007 | | | | | | | | | | | | | |
| 2008 | | | | | | | | | | | | | |
| 2009 | | | | | | | | | | | | | |
| 2010 | \$16.59 | \$0.27 | \$16.86 | \$8.15 | \$1.44 | \$1.68 | \$5.14 | \$16.41 | \$0.45 | | | \$0.45 | |
| 2011 | \$20.58 | \$0.57 | \$21.15 | \$9.87 | \$1.71 | \$1.36 | \$5.22 | \$18.16 | \$2.99 | | | \$2.99 | |
| 2012 | \$18.56 | \$0.83 | \$19.39 | \$10.53 | \$1.70 | \$1.29 | \$5.18 | \$18.70 | \$0.69 | \$0.38 | | \$1.07 | |
| 2013 | \$20.48 | \$0.34 | \$20.82 | \$11.83 | \$1.73 | \$1.15 | \$5.17 | \$19.88 | \$0.94 | \$0.63 | | \$1.57 | |
| 2014 | \$23.19 | \$0.43 | \$23.62 | \$11.18 | \$1.83 | \$0.72 | \$5.36 | \$19.09 | \$4.53 | \$0.62 | | \$5.15 | |
| 2015 | \$16.79 | \$0.40 | \$17.19 | \$9.58 | \$1.85 | \$0.69 | \$5.23 | \$17.35 | (\$0.16) | \$0.66 | | \$0.50 | |
| 2016 | \$17.21 | \$0.22 | \$17.43 | \$9.27 | \$2.07 | \$1.27 | \$4.96 | \$17.57 | (\$0.14) | \$1.11 | | \$0.97 | |
| 2017 | \$19.05 | \$0.28 | \$19.33 | \$8.69 | \$2.29 | \$1.44 | \$5.52 | \$17.94 | \$1.39 | \$0.54 | | \$1.93 | |
| 2018 | \$17.65 | \$0.23 | \$17.88 | \$8.00 | \$2.40 | \$1.43 | \$5.63 | \$17.46 | \$0.42 | \$0.47 | | \$0.89 | |
| 2019 | \$20.18 | \$0.24 | \$20.42 | \$8.56 | \$2.73 | \$1.57 | \$5.94 | \$18.80 | \$1.62 | \$0.61 | | \$2.23 | |
| 2020 | \$19.71 | \$0.59 | \$20.30 | \$8.95 | \$2.95 | \$1.78 | \$5.89 | \$19.57 | \$0.73 | \$0.44 | | \$1.17 | |
| 2021 | \$21.46 | \$0.95 | \$22.41 | \$10.38 | \$3.53 | \$2.00 | \$6.48 | \$22.39 | \$0.02 | \$0.67 | | \$0.69 | |
| 2022 | \$26.82 | \$0.47 | \$27.29 | \$13.32 | \$2.46 | \$1.36 | \$7.22 | \$24.36 | \$2.93 | \$0.66 | | \$3.59 | |

Appendix 2

Summary of Nietzke & Faupel PC

| | Michigan, Ohio & Indiana \$/cwt | | | | | | | | | | | | | | | | |
|-----------------------------|---------------------------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|---------------|
| | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 |
| Milk | 25.28 | 18.36 | 17.44 | 17.97 | 15.57 | 16.95 | 15.75 | 17.1 | 23.85 | 20.45 | 18.55 | 20.66 | 17.3 | 13.76 | 18.96 | 19.41 | 13.67 |
| Livestock | 0.52 | 0.46 | 0.4 | 0.4 | 0.42 | 0.46 | 0.6 | 0.99 | 0.7 | 0.44 | 0.52 | 0.48 | 0.48 | 0.43 | 0.48 | 0.71 | 0.79 |
| Cull cows | 1.14 | 0.95 | 0.86 | 0.88 | 0.78 | 0.87 | 1.07 | 1.48 | 1.62 | 1.29 | 1.19 | 1.07 | 0.76 | 0.67 | 0.81 | 0.65 | 0.61 |
| Other | 0.65 | 0.72 | 1.43 | 0.64 | 0.49 | 0.33 | 0.32 | 0.27 | 0.24 | 0.29 | 0.25 | 0.2 | 0.3 | 0.42 | 0.26 | 0.21 | 0.24 |
| Total Revenue | 27.59 | 20.49 | 20.13 | 19.89 | 17.26 | 18.61 | 17.74 | 19.84 | 26.41 | 22.47 | 20.51 | 22.41 | 18.84 | 15.28 | 20.51 | 20.98 | 15.31 |
| Amortization expense | | | | | | | | | 0.01 | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 | 0.03 | 0.04 | 0.04 |
| Animal Health | 0.44 | 0.43 | 0.46 | 0.46 | 0.49 | 0.49 | 0.47 | 0.51 | 0.54 | 0.52 | 0.53 | 0.55 | 0.55 | 0.55 | 0.65 | 0.61 | 0.61 |
| Bank charges | | | 0.01 | - | - | - | - | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Bedding | 0.18 | 0.17 | 0.17 | 0.16 | 0.16 | 0.17 | 0.19 | 0.19 | 0.19 | 0.18 | 0.17 | 0.17 | 0.16 | 0.16 | 0.21 | 0.2 | 0.19 |
| Breeding expense | 0.12 | 0.12 | 0.11 | 0.1 | 0.11 | 0.11 | 0.12 | 0.12 | 0.13 | 0.12 | 0.11 | 0.12 | 0.11 | 0.12 | 0.15 | 0.13 | 0.12 |
| BST | | | | | | | | | | | | | | | - | 0.52 | 0.45 |
| Cull cow expense | 2.74 | 2.69 | 2.59 | 2.77 | 2.53 | 2.64 | 2.84 | 2.78 | 2.86 | 2.66 | 2.52 | 2.79 | 2.71 | 2.85 | 3.2 | 2.84 | 2.57 |
| Custom hire - waste removal | 0.32 | 0.26 | 0.28 | 0.32 | 0.29 | 0.29 | 0.36 | 0.39 | 0.34 | 0.31 | 0.31 | 0.3 | 0.29 | 0.29 | 0.52 | 0.41 | 0.33 |
| Depreciation | 1.03 | 1.01 | 1.01 | 1.05 | 1.03 | 0.99 | 1.06 | 1.1 | 1.1 | 1.06 | 1.05 | 1.03 | 1.03 | 1.08 | 1.09 | 1.02 | 1.03 |
| Feed | 10.94 | 9.34 | 8.48 | 8.08 | 7.71 | 7.71 | 7.89 | 8.6 | 10.05 | 10.22 | 9.89 | 9.09 | 7.6 | 7.94 | 8.48 | 6.55 | 5.46 |
| Fuel | 0.37 | 0.22 | 0.18 | 0.22 | 0.22 | 0.18 | 0.16 | 0.22 | 0.34 | 0.33 | 0.33 | 0.33 | 0.29 | 0.25 | 0.41 | 0.32 | 0.26 |
| Hauling - milk | 1.09 | 0.98 | 1.02 | 0.83 | 0.83 | 0.78 | 0.65 | 0.72 | 0.53 | 0.28 | 0.25 | 0.26 | 0.28 | 0.27 | 0.35 | 0.24 | 0.24 |
| Insurance | 0.12 | 0.13 | 0.14 | 0.12 | 0.11 | 0.1 | 0.1 | 0.13 | 0.13 | 0.11 | 0.11 | 0.12 | 0.12 | 0.14 | 0.13 | 0.13 | 0.12 |
| Interest | 0.49 | 0.43 | 0.49 | 0.67 | 0.62 | 0.48 | 0.41 | 0.45 | 0.49 | 0.54 | 0.63 | 0.75 | 0.86 | 0.89 | 0.98 | 1.18 | 1.13 |
| Labor, benefits and taxes | 1.94 | 1.81 | 1.83 | 1.84 | 1.74 | 1.62 | 1.6 | 1.67 | 1.68 | 1.6 | 1.57 | 1.55 | 1.58 | 1.57 | 1.73 | 1.62 | 1.55 |
| Marketing and promotion | 0.24 | 0.24 | 0.23 | 0.22 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.2 | 0.19 | 0.26 | 0.26 | 0.25 | 0.19 | 0.19 |
| Miscellaneous | 0.03 | 0.02 | 0.01 | 0.03 | 0.03 | 0.03 | 0.02 | 0.03 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.03 | 0.03 |
| Professional fees and DHIA | 0.09 | 0.09 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.1 | 0.11 | 0.11 | 0.11 | 0.12 | 0.14 | 0.11 | 0.12 | 0.12 | 0.13 |
| Repairs and maintenance | 0.71 | 0.53 | 0.55 | 0.56 | 0.5 | 0.47 | 0.44 | 0.49 | 0.51 | 0.43 | 0.39 | 0.41 | 0.39 | 0.33 | 0.45 | 0.45 | 0.31 |
| Lease and rent | 0.23 | 0.19 | 0.21 | 0.15 | 0.19 | 0.24 | 0.26 | 0.23 | 0.25 | 0.25 | 0.28 | 0.27 | 0.39 | 0.4 | 0.39 | 0.42 | 0.22 |
| Supplies | 0.52 | 0.42 | 0.43 | 0.43 | 0.44 | 0.41 | 0.44 | 0.5 | 0.56 | 0.48 | 0.47 | 0.5 | 0.48 | 0.46 | 0.66 | 0.41 | 0.35 |
| Taxes | 0.11 | 0.09 | 0.09 | 0.09 | 0.09 | 0.07 | 0.07 | 0.07 | 0.09 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.08 | 0.08 | 0.07 |
| Utilities | 0.38 | 0.36 | 0.33 | 0.35 | 0.35 | 0.35 | 0.32 | 0.33 | 0.32 | 0.32 | 0.31 | 0.31 | 0.3 | 0.27 | 0.28 | 0.27 | 0.25 |
| Total expenses | 22.09 | 19.53 | 18.7 | 18.54 | 17.74 | 17.43 | 17.7 | 18.85 | 20.49 | 19.84 | 19.35 | 18.99 | 17.67 | 18.08 | 20.21 | 17.79 | 15.66 |
| Net margin | 5.50 | 0.96 | 1.43 | 1.35 | (0.48) | 1.18 | 0.04 | 0.99 | 5.92 | 2.63 | 1.16 | 3.42 | 1.17 | (2.80) | 0.30 | 3.19 | (0.35) |