



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

Karen Ross, Secretary

November 7, 2013

TO ALL INTERESTED PARTIES:

This report represents the latest nonfat dry milk, bulk butter, and Cheddar cheese Manufacturing Cost Exhibit for the period of January through December 2012. As was discussed in the past, the cost exhibit for Cheddar cheese has limitations due to the concentration issues and confidentiality of proprietary information. In addition, these same confidentiality limitations will prohibit the Department from being able to release the Comparison of the Chicago Mercantile Exchange Cheddar Cheese Prices and the Audited California Cheddar Cheese Sales data.

About the Cost Exhibit:

- The processing cost data does not include the cost of raw product nor does it include any cost of marketing finished product.
- The cost data for nonfat dry milk and bulk butter are presented in a table that shows actual weighted-average cost of plants grouped by efficiency.
- The cost data for Cheddar cheese is presented in a table as one group to protect confidentiality.
- The summary table shows the weighted-average manufacturing cost for nonfat dry milk, bulk butter, and Cheddar cheese as published since January 2003.

In addition, included in this cost exhibit is a comparative analysis of common line item costs. Costs include: packaging, processing labor; processing non-labor; general and administrative cost; return on investment; and for butter and Cheddar cheese, other miscellaneous ingredients.

We continue to appreciate the assistance of those plants that are providing the Manufacturing Cost Unit with data to complete the studies.

Should you have any questions regarding this material, please contact me at the telephone number below or by e-mail at [venetta.reed@cdfa.ca.gov](mailto:venetta.reed@cdfa.ca.gov).

Sincerely,

Venetta Reed  
Supervising Auditor I



## Summary of Weighted Average Manufacturing Costs

### Butter, Nonfat Dry Milk, Cheddar Cheese, and Dry Whey Powder

Costs include processing labor, processing non-labor, packaging, other ingredients (for butter and Cheddar cheese only), general and administrative, and return on investments at 4.935% for 2012.

| Study Period | Release Date | BUTTER         |                  | NONFAT DRY MILK |                  | CHEDDAR CHEESE |                  | DRY WHEY POWDER |                  |
|--------------|--------------|----------------|------------------|-----------------|------------------|----------------|------------------|-----------------|------------------|
|              |              | Cost Per Pound | Number of Plants | Cost Per Pound  | Number of Plants | Cost Per Pound | Number of Plants | Cost Per Pound  | Number of Plants |
| Jan-Dec 2003 | Nov-04       | \$0.1299       | 7                | \$0.1560        | 10               | \$0.1706       | 9                | \$0.2675        | 4                |
| Jan-Dec 2004 | Nov-05       | \$0.1368       | 8                | \$0.1543        | 10               | \$0.1769       | 7                | \$0.2673        | 3                |
| Jan-Dec 2005 | Nov-06       | \$0.1408       | 8                | \$0.1659        | 9                | \$0.1914       | 7                | \$0.2851        | 3                |
| Jan-Dec 2006 | Sep-07       | \$0.1373       | 7                | \$0.1664        | 8                | \$0.1988       | 7                | \$0.3099        | 3                |
| Jan-Dec 2007 | Sep-08       | \$0.1316       | 7                | \$0.1568        | 8                | \$0.2003       | 6                | --              | --               |
| Jan-Dec 2008 | Oct-09       | \$0.1553       | 8                | \$0.1931        | 9                | \$0.2099       | 6                | --              | --               |
| Jan-Dec 2009 | Nov-10       | \$0.1811       | 8                | \$0.1984        | 9                | \$0.1966       | 6                | --              | --               |
| Jan-Dec 2010 | Oct-11       | \$0.1781       | 8                | \$0.2070        | 9                | \$0.1921       | 6                | --              | --               |
| Jan-Dec 2011 | Nov-12       | \$0.1775       | 8                | \$0.1942        | 9                | \$0.2029       | 4                | --              | --               |
| Jan-Dec 2012 | Nov-13       | \$0.1688       | 7                | \$0.1999        | 9                | \$0.2171       | 4                | --              | --               |

**Notes:**

- Since 1996, the Cheddar cheese cost studies have included costs associated with Cheddar cheese plants producing 500-pound barrels and 640-pound blocks. However, costs for packaging labor and packaging expenses were replaced with the average of those costs associated with 40-pound block plants.
- No cost studies performed for Dry Whey Powder plants since January 2007 due to less than 3 plants manufacturing Dry Whey Powder.

## BUTTER MANUFACTURING COSTS

CURRENT Study Period: January through December 2012  
With Comparison to the same time period Prior Year (2011)

- Manufacturing cost data were collected and summarized from seven California butter plants. The seven plants processed 647.91 million pounds of butter during the 12-month study period, January through December 2012, representing 99.04% of the butter processed in California.
- The volume total includes both bulk butter and cut butter, but the costs reflect only costs for bulk butter (25 kg and 68 lb. blocks).
- To obtain the weighted average, individual plant costs were weighted by their butter processing volume relative to the total volume of butter processed by all plants included in this cost study.

### Breakdown of Butter Manufacturing Costs - January through December 2012

| Categories                         | Low Cost Group | High Cost Group | Range of Costs |          | CURRENT Weighted Average Cost All Plants Jan-Dec 2012 | PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2011 | Actual Difference Current Less Prior Year |
|------------------------------------|----------------|-----------------|----------------|----------|---|--|---|
|                                    |                |                 | Minimum        | Maximum  |   |  |   |
| <i>Dollars Per Pound of Butter</i> |                |                 |                |          |   |  |   |
| Number of Plants                   | 3              | 4               | 7              | 7        | 7   | 8  | -1  |
| Processing Labor                   | \$0.0605       | \$0.0537        | \$0.0246       | \$0.0895 | <b>\$0.0572</b>                                       | \$0.0613   | -\$0.0041                                 |
| Processing Non-Labor               | \$0.0617       | \$0.0790        | \$0.0552       | \$0.1297 | <b>\$0.0701</b>                                       | \$0.0741   | -\$0.0040                                 |
| Packaging                          | \$0.0136       | \$0.0124        | \$0.0115       | \$0.0137 | <b>\$0.0130</b>                                       | \$0.0118   | \$0.0012                                  |
| Misc. Ingredients                  | \$0.0026       | \$0.0026        | \$0.0019       | \$0.0031 | <b>\$0.0026</b>                                       | \$0.0024   | \$0.0002                                  |
| General & Administrative           | \$0.0139       | \$0.0197        | \$0.0101       | \$0.0249 | <b>\$0.0167</b>                                       | \$0.0166   | \$0.0001                                  |
| Return on Investment               | \$0.0078       | \$0.0108        | \$0.0026       | \$0.0204 | <b>\$0.0092</b>                                       | \$0.0113   | -\$0.0021                                 |
| Average Total Cost                 | \$0.1601       | \$0.1782        | --             | --       | <b>\$0.1688</b>                                       | \$0.1775   | -\$0.0087                                 |
| Volume in Group (Lbs.)             | 335,451,926    | 312,453,288     | --             | --       | <b>647,905,214</b>                                    | 617,006,399  | 30,898,815                                |
| % Volume by Group                  | 51.80%         | 48.20%          | --             | --       | <b>100.0%</b>   | 100.0%   | --  |

**Processing Labor:** Labor costs associated with processing of product, including wages, payroll taxes, and fringe benefits.

**Processing Non-Labor:** Includes costs such as utilities, repairs and maintenance, laundry, supplies, depreciation, plant insurance, outside storage, and rent.

**Packaging:** Includes all non-reusable items used in the packaging of the product, such as boxes, bags, cartons, liners, tape, glue, and stretch wrap.

**Misc. Ingredients:** Includes salt and color.

**General & Administrative:** Includes expenses in the management of the company, such as office supplies, short-term interest, dues and subscriptions, accounting fees, headquarter charges, office clerical wages, and executive salaries.

**Return on Investment:** Calculated by subtracting accumulated depreciation from the original cost of assets, with the remaining book value multiplied by Moody's "BAA" corporate bond index.

|                           | <b>2011<br/>WEIGHTED<br/>AVERAGE<br/>COSTS</b> | <b>2012<br/>WEIGHTED<br/>AVERAGE<br/>COSTS</b> | <b>%<br/>CHANGE</b> |
|---------------------------|--|--|---------------------|
| <b>All Butter Pounds</b>  | 617,006,399                                    | 647,905,214                                    | 5.01%               |
| <b>Bulk Butter Pounds</b> | 291,762,006                                    | 300,592,800                                    | 3.03%               |
| <b>SUMMARY OF COSTS</b>   |  |  |                     |
| Misc. Ingredient Costs    | 0.0024   | 0.0026   | 8.33%               |
| Packaging Expense         | 0.0118   | 0.0130   | 10.17%              |
| Processing Labor          | 0.0613   | 0.0572   | -6.69%              |
| Processing Non-Labor      | 0.0741   | 0.0701   | -5.40%              |
| Gen & Admin Expenses      | 0.0166   | 0.0167   | 0.60%               |
| Return On Investment      | 0.0113   | 0.0092   | -18.58%             |
|                           | <hr/>  |  |                     |
| Manufact Costs - per Lb.  | 0.1775   | 0.1688   | -4.90%              |

#### **SELECTED EXPENSES PER LB.**

|                            |        |        |         |
|----------------------------|--------|--------|---------|
| Natural Gas & Fuel Oil     | 0.0054 | 0.0021 | -61.11% |
| Electricity                | 0.0101 | 0.0100 | -0.99%  |
| Sewer,Water,Garbage        | 0.0046 | 0.0048 | 4.35%   |
| Depreciation               | 0.0137 | 0.0128 | -6.57%  |
| Property Taxes             | 0.0025 | 0.0020 | -20.00% |
| Insurance                  | 0.0010 | 0.0013 | 30.00%  |
| Repairs & Maintenance      | 0.0091 | 0.0091 | 0.00%   |
| Plant Supplies             | 0.0133 | 0.0143 | 7.52%   |
| Outside Storage            | 0.0079 | 0.0086 | 8.86%   |
| Rent-Plant & Equip         | 0.0006 | 0.0005 | -16.67% |
| Outside Testing & Grading  | 0.0025 | 0.0026 | 4.00%   |
| Gen & Admin Payroll        | 0.0041 | 0.0059 | 43.90%  |
| Short-Term Interest        | 0.0042 | 0.0042 | 0.00%   |
| Professional Services      | 0.0008 | 0.0009 | 12.50%  |
| Headquarter Expenses       | 0.0066 | 0.0031 | -53.03% |
| Other Misc. Expenses       | 0.0043 | 0.0046 | 6.98%   |
|                            | <hr/>  |        |         |
| Total Non-Labor & G&A Exps | 0.0907 | 0.0868 | -4.30%  |

#### **MISC. INFORMATION**

|                              |              |              |        |
|------------------------------|--------------|--------------|--------|
| Payroll per Employee-Plant   | \$80,693     | \$82,272     | 1.96%  |
| Total Book Value of Assets   | \$12,940,443 | \$12,915,610 | -0.19% |
| Book Value of Assets per Lb. | 0.2055       | 0.2012       | -2.09% |

## NONFAT DRY MILK MANUFACTURING COSTS

CURRENT Study Period: January through December 2012  
With Comparison to the same time period Prior Year (2011)

- Manufacturing cost data were collected and summarized from nine California NFDM plants. The nine plants processed 808.06 million pounds of NFDM during the 12-month study period, January through December 2012, representing 96.85% of the NFDM processed in California.
- The volume includes NFDM, both animal and human consumption. NFDM for human consumption represented 99.65% of the 808.06 million pounds of NFDM processed, and NFDM for animal consumption represented 0.35%.
- The volume total includes all grades of NFDM packaged in any container size, but the costs reflect only costs for 25 kg and 50 lb. bags of NFDM.
- To obtain the weighted average, individual plant costs were weighted by their NFDM processing volume relative to the total volume of NFDM processed by all plants included in the cost study.

### Breakdown of Nonfat Dry Milk Manufacturing Costs - January through December 2012

| Categories                       | Low Cost Group | Medium Cost Group | High Cost Group | Range of Costs |          | CURRENT Weighted Average Cost All Plants Jan-Dec 2012 | PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2011 | Actual Difference Current Less Prior Year |
|----------------------------------|----------------|-------------------|-----------------|----------------|----------|---|--|---|
|                                  |                |                   |                 | Minimum        | Maximum  |   |  |   |
| <i>Dollars Per Pound of NFDM</i> |                |                   |                 |                |          |   |  |   |
| Number of Plants                 | 3              | 3                 | 3               | 9              | 9        | 9   | 9  | 0   |
| Processing Labor                 | \$0.0416       | \$0.0379          | \$0.0772        | \$0.0237       | \$0.1079 | <b>\$0.0414</b>                                       | \$0.0363   | \$0.0051                                  |
| Processing Non-Labor             | \$0.1062       | \$0.1220          | \$0.1352        | \$0.0958       | \$0.1994 | <b>\$0.1162</b>                                       | \$0.1150   | \$0.0012                                  |
| Packaging                        | \$0.0140       | \$0.0145          | \$0.0133        | \$0.0129       | \$0.0151 | <b>\$0.0142</b>                                       | \$0.0140   | \$0.0002                                  |
| General & Administrative         | \$0.0102       | \$0.0176          | \$0.0208        | \$0.0096       | \$0.0240 | <b>\$0.0147</b>                                       | \$0.0135   | \$0.0012                                  |
| Return on Investment             | \$0.0062       | \$0.0196          | \$0.0073        | \$0.0031       | \$0.0250 | <b>\$0.0134</b>                                       | \$0.0154   | -\$0.0020                                 |
| <b>Average Total Cost</b>        | \$0.1782       | \$0.2116          | \$0.2538        | --             | --       | <b>\$0.1999</b>                                       | \$0.1942   | \$0.0057                                  |
| Volume in Group (Lbs.)           | 334,847,366    | 431,713,282       | 41,496,936      | --             | --       | <b>808,057,584</b>                                    | 741,174,068  | 66,883,516                                |
| % Volume by Group                | 41.44%         | 53.43%            | 5.14%           | --             | --       | <b>100.0%</b>   | 100.0%   | --  |

**Processing Labor:** Labor costs associated with processing of product, including wages, payroll taxes, and fringe benefits.

**Processing Non-Labor:** Includes costs such as utilities, repairs and maintenance, laundry, supplies, depreciation, plant insurance, outside storage, and rent.

**Packaging:** Includes all non-reusable items used in the packaging of the product, such as boxes, bags, cartons, liners, tape, glue and stretch wrap.

**General & Administrative:** Includes expenses in the management of the company, such as office supplies, short-term interest, dues and subscriptions, accounting fees, headquarter charges, office clerical wages, and executive salaries.

**Return on Investment:** Calculated by subtracting accumulated depreciation from the original cost of assets, with the remaining book value multiplied by Moody's "BAA" corporate bond index.

|                           | <b>2011<br/>WEIGHTED<br/>AVERAGE<br/>COSTS</b> | <b>2012<br/>WEIGHTED<br/>AVERAGE<br/>COSTS</b> | <b>%<br/>CHANGE</b> |
|---------------------------|--|--|---------------------|
| <b>NFDM Powder Pounds</b> | 741,174,068                                    | 808,057,584                                    | 9.02%               |

#### **SUMMARY OF COSTS**

|                          |        |        |         |
|--------------------------|--------|--------|---------|
| Packaging Expense        | 0.0140 | 0.0142 | 1.43%   |
| Processing Labor         | 0.0363 | 0.0414 | 14.05%  |
| Processing Non-Labor     | 0.1150 | 0.1162 | 1.04%   |
| Gen & Admin Expenses     | 0.0135 | 0.0147 | 8.89%   |
| Return On Investment     | 0.0154 | 0.0134 | -12.99% |
|                          | <hr/>  |        |         |
| Manufact Costs - per Lb. | 0.1942 | 0.1999 | 2.94%   |

#### **SELECTED EXPENSES PER LB.**

|                            |        |        |         |
|----------------------------|--------|--------|---------|
| Natural Gas & Fuel Oil     | 0.0264 | 0.0254 | -3.79%  |
| Electricity                | 0.0164 | 0.0161 | -1.83%  |
| Sewer, Water, Garbage      | 0.0062 | 0.0062 | 0.00%   |
| Depreciation               | 0.0182 | 0.0182 | 0.00%   |
| Property Taxes             | 0.0034 | 0.0030 | -11.76% |
| Insurance                  | 0.0010 | 0.0012 | 20.00%  |
| Repairs & Maintenance      | 0.0109 | 0.0109 | 0.00%   |
| Plant Supplies             | 0.0145 | 0.0173 | 19.31%  |
| Outside Storage            | 0.0076 | 0.0089 | 17.11%  |
| Rent-Plant & Equip         | 0.0007 | 0.0008 | 14.29%  |
| Outside Testing & Grading  | 0.0057 | 0.0056 | -1.75%  |
| Gen & Admin Payroll        | 0.0033 | 0.0046 | 39.39%  |
| Short-Term Interest        | 0.0039 | 0.0047 | 20.51%  |
| Professional Services      | 0.0006 | 0.0004 | -33.33% |
| Headquarter Expenses       | 0.0049 | 0.0030 | -38.78% |
| Other Misc. Expenses       | 0.0048 | 0.0046 | -4.17%  |
|                            | <hr/>  |        |         |
| Total Non-Labor & G&A Exps | 0.1285 | 0.1309 | 1.87%   |

#### **MISC. INFORMATION**

|                              |              |              |       |
|------------------------------|--------------|--------------|-------|
| Payroll per Employee-Plant   | \$80,776     | \$82,643     | 2.31% |
| Total Book Value of Assets   | \$64,425,808 | \$65,936,404 | 2.34% |
| Book Value of Assets per Lb. | 0.2714       | 0.2729       | 0.55% |

## CHEESE MANUFACTURING COSTS

CURRENT Study Period: January through December 2012  
With Comparison to the same time period Prior Year (2011)

- Manufacturing cost data were collected and summarized from four California cheese plants. Due to confidential reasons, total cheese volumes cannot be displayed.
- The volume total includes both Cheddar and Monterey Jack cheeses, but the costs reflect only costs for 40-lb. blocks of Cheddar.
- Two plants processed 500-lb. barrels or 640-lb. blocks. Packaging costs and packaging labor for 40-lb. blocks were substituted for these plants.
- To obtain the weighted average, individual plant costs were weighted by their cheese processing volume relative to the total volume of cheese processed by all plants included in the cost study.
- For all cheese: the weighted average yield was 12.17 lbs. of cheese per hundredweight of milk. The weighted average moisture was 37.25% and the weighted average vat tests were 4.20% fat and 9.38% SNF.

### Breakdown of Cheese Manufacturing Costs - January through December 2012

| Categories                         | Total Cost<br>One Group | CURRENT<br>Weighted Average<br>Cost All Plants<br>Jan-Dec 2012 | PRIOR YEAR<br>Weighted Average<br>Cost All Plants<br>Jan-Dec 2011 | Actual<br>Difference<br>Current Less<br>Prior Year |
|------------------------------------|-------------------------|--|---|--|
| <i>Dollars Per Pound of Cheese</i> |                         |  |   |  |
| Number of Plants                   | 4                       | 4  | 4   | 0  |
| Processing Labor                   | \$0.0559                | \$0.0559   | \$0.0552  | \$0.0007   |
| Processing Non-Labor               | \$0.0829                | \$0.0829   | \$0.0782  | \$0.0047   |
| Packaging                          | \$0.0250                | \$0.0250   | \$0.0177  | \$0.0073   |
| Misc. Ingredients                  | \$0.0262                | \$0.0262   | \$0.0254  | \$0.0008   |
| General & Administrative           | \$0.0235                | \$0.0235   | \$0.0220  | \$0.0015   |
| Return on Investment               | \$0.0036                | \$0.0036   | \$0.0044  | -\$0.0008  |
| <b>Average Total Cost</b>          | \$0.2171                | \$0.2171   | \$0.2029  | \$0.0142   |

**Processing Labor:** Labor costs associated with processing of product, including wages, payroll taxes, and fringe benefits.

**Processing Non-Labor:** Includes costs such as utilities, repairs and maintenance, laundry, supplies, depreciation, plant insurance, outside storage, and rent.

**Packaging:** Includes all non-reusable items used in the packaging of the product, such as boxes, bags, cartons, liners, tape, glue, and stretch wrap.

**Misc. Ingredients:** Includes salt, color, and rennet.

**General & Administrative:** Includes expenses in the management of the company, such as office supplies, short-term interest, dues and subscriptions, accounting fees, headquarter charges, office clerical wages, and executive salaries.

**Return on Investment:** Calculated by subtracting accumulated depreciation from the original cost of assets, with the remaining book value multiplied by Moody's "BAA" corporate bond index.

|                              | <b>2011<br/>WEIGHTED<br/>AVERAGE<br/>COSTS</b> | <b>2012<br/>WEIGHTED<br/>AVERAGE<br/>COSTS</b> | <b>%<br/>CHANGE</b> |
|------------------------------|--|--|---------------------|
| <b>Cheddar Cheese Pounds</b> |  |  |                     |
| <b>SUMMARY OF COSTS</b>      |  |  |                     |
| Misc. Ingredient Costs       | 0.0254   | 0.0262   | 3.15%               |
| Packaging Expense            | 0.0177   | 0.0250   | 41.24%              |
| Processing Labor             | 0.0552   | 0.0559   | 1.27%               |
| Processing Non-Labor         | 0.0782   | 0.0829   | 6.01%               |
| Gen & Admin Expenses         | 0.0220   | 0.0235   | 6.82%               |
| Return On Investment         | 0.0044   | 0.0036   | -18.18%             |
|                              | <hr/>  |  |                     |
| Manufact Costs - per Lb.     | 0.2029   | 0.2171   | 7.00%               |
|                              | <hr/> <hr/>                                    |  |                     |

**SELECTED EXPENSES PER LB.**

|                            |        |        |         |
|----------------------------|--------|--------|---------|
| Natural Gas & Fuel Oil     | 0.0081 | 0.0054 | -33.33% |
| Electricity                | 0.0058 | 0.0062 | 6.90%   |
| Sewer & Whey Disposal      | 0.0044 | 0.0042 | -4.55%  |
| Depreciation               | 0.0086 | 0.0084 | -2.33%  |
| Property Taxes             | 0.0019 | 0.0013 | -31.58% |
| Insurance                  | 0.0016 | 0.0016 | 0.00%   |
| Repairs & Maintenance      | 0.0156 | 0.0161 | 3.21%   |
| Plant Supplies             | 0.0126 | 0.0150 | 19.05%  |
| Outside Storage            | 0.0051 | 0.0057 | 11.76%  |
| Rent - Plant & Equipment   | 0.0118 | 0.0150 | 27.12%  |
| Outside Testing & Grading  | 0.0009 | 0.0016 | 77.78%  |
| Gen & Admin Payroll        | 0.0120 | 0.0142 | 18.33%  |
| Short-Term Interest        | 0.0009 | 0.0003 | -66.67% |
| Professional Services      | 0.0030 | 0.0022 | -26.67% |
| Headquarter Expenses       | 0.0022 | 0.0029 | 31.82%  |
| Other Misc. Expenses       | 0.0057 | 0.0064 | 12.28%  |
|                            | <hr/>  |        |         |
| Total Non-Labor & G&A Exps | 0.1002 | 0.1065 | 6.29%   |

**MISC. INFORMATION**

|                            |          |          |       |
|----------------------------|----------|----------|-------|
| Payroll per Employee-Plant | \$59,220 | \$60,927 | 2.88% |
|----------------------------|----------|----------|-------|

|                          |       |       |        |
|--------------------------|-------|-------|--------|
| <b>FINISHED MOISTURE</b> | 37.37 | 37.25 | -0.32% |
| VAT FAT                  | 4.30  | 4.20  | -2.33% |
| VAT SNF                  | 9.29  | 9.38  | 0.97%  |
| VAT YIELD                | 12.21 | 12.17 | -0.33% |