



CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE

Karen Ross, Secretary

November 12, 2014

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 2013. 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 2004.

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 5.102% for 2013.

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 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	--	--
Jan-Dec 2013	Nov-14	\$0.1724	7	\$0.1997	9	\$0.2291	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 2013  
With Comparison to the same time period Prior Year (2012)

- Manufacturing cost data were collected and summarized from seven California butter plants. The seven plants processed 631.40 million pounds of butter during the 12-month study period, January through December 2013, representing 99.53% 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 2013

Categories	Low Cost Group	High Cost Group	Range of Costs		CURRENT Weighted Average Cost All Plants Jan-Dec 2013	PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2012	Actual Difference Current Less Prior Year
			Minimum	Maximum			
<i>Dollars Per Pound of Butter</i>							
Number of Plants	3	4	7	7	7	7	0
Processing Labor	\$0.0657	\$0.0627	\$0.0341	\$0.0842	<b>\$0.0642</b>	\$0.0572	\$0.0070
Processing Non-Labor	\$0.0577	\$0.0709	\$0.0532	\$0.1084	<b>\$0.0643</b>	\$0.0701	-\$0.0058
Packaging	\$0.0138	\$0.0134	\$0.0120	\$0.0153	<b>\$0.0136</b>	\$0.0130	\$0.0006
Misc. Ingredients	\$0.0027	\$0.0029	\$0.0026	\$0.0033	<b>\$0.0028</b>	\$0.0026	\$0.0002
General & Administrative	\$0.0138	\$0.0216	\$0.0046	\$0.0284	<b>\$0.0177</b>	\$0.0167	\$0.0010
Return on Investment	\$0.0081	\$0.0114	\$0.0026	\$0.0221	<b>\$0.0098</b>	\$0.0092	\$0.0006
<b>Average Total Cost</b>	\$0.1618	\$0.1829	--	--	<b>\$0.1724</b>	\$0.1688	\$0.0036
<b>Volume in Group (Lbs.)</b>	314,137,719	317,261,678	--	--	<b>631,399,397</b>	647,905,214	-16,505,817
<b>% Volume by Group</b>	49.80%	50.20%	--	--	<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, 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.

**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>2012 WEIGHTED AVERAGE COSTS</b>	<b>2013 WEIGHTED AVERAGE COSTS</b>	<b>% CHANGE</b>
<b>All Butter Pounds</b>	647,905,214	631,399,397	-2.55%
<b>Bulk Butter Pounds</b>	300,592,800	269,844,701	-10.23%
<b>SUMMARY OF COSTS</b>			
Misc. Ingredient Costs	0.0026	0.0028	7.69%
Packaging Expense	0.0130	0.0136	4.62%
Processing Labor	0.0572	0.0642	12.24%
Processing Non-Labor	0.0701	0.0643	-8.27%
Gen & Admin Expenses	0.0167	0.0177	5.99%
Return On Investment	0.0092	0.0098	6.52%
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Manufacturing Costs - per Lb.	0.1688	0.1724	2.13%

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

Natural Gas & Fuel Oil	0.0021	0.0025	19.05%
Electricity	0.0100	0.0100	0.00%
Sewer, Water, Garbage	0.0048	0.0051	6.25%
Depreciation	0.0128	0.0136	6.25%
Property Taxes	0.0020	0.0020	0.00%
Insurance	0.0013	0.0014	7.69%
Repairs & Maintenance	0.0091	0.0101	10.99%
Plant Supplies	0.0143	0.0147	2.80%
Outside Storage	0.0086	0.0000	-100.00%
Rent-Plant & Equip	0.0005	0.0006	20.00%
Outside Testing & Grading	0.0026	0.0023	-11.54%
Gen & Admin Payroll	0.0059	0.0067	13.56%
Short-Term Interest	0.0042	0.0049	16.67%
Professional Services	0.0009	0.0008	-11.11%
Headquarter Expenses	0.0031	0.0027	-12.90%
Other Misc. Expenses	0.0046	0.0046	0.00%
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Total Non-Labor & G&A Exps	0.0868	0.0820	-5.53%

#### **MISC. INFORMATION**

Payroll per Employee-Plant	\$82,272	\$84,674	2.92%
Total Book Value of Assets	\$12,915,610	\$11,300,149	-12.51%
Book Value of Assets per Lb.	0.2012	0.2083	3.53%

## NONFAT DRY MILK MANUFACTURING COSTS

CURRENT Study Period: January through December 2013  
With Comparison to the same time period Prior Year (2012)

- Manufacturing cost data were collected and summarized from nine California NFDM plants. The nine plants processed 565.44 million pounds of NFDM during the 12-month study period, January through December 2013, representing 96.30% of the NFDM processed in California.
- The volume includes NFDM, both animal and human consumption. NFDM for human consumption represented 99.30% of the 565.44 million pounds of NFDM processed, and NFDM for animal consumption represented 0.70%.
- 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 2013

Categories	Low Cost Group	Medium Cost Group	High Cost Group	Range of Costs		CURRENT Weighted Average Cost All Plants Jan-Dec 2013	PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2012	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	\$0.0446	\$0.0483	\$0.0688	\$0.0288	\$0.1034	<b>\$0.0484</b>	\$0.0414	\$0.0070
Processing Non-Labor	\$0.0962	\$0.1201	\$0.1632	\$0.0936	\$0.2317	<b>\$0.1122</b>	\$0.1162	-\$0.0040
Packaging	\$0.0146	\$0.0146	\$0.0136	\$0.0134	\$0.0151	<b>\$0.0145</b>	\$0.0142	\$0.0003
General & Administrative	\$0.0100	\$0.0161	\$0.0156	\$0.0066	\$0.0240	<b>\$0.0130</b>	\$0.0147	-\$0.0017
Return on Investment	\$0.0059	\$0.0200	\$0.0066	\$0.0030	\$0.0275	<b>\$0.0116</b>	\$0.0134	-\$0.0018
<b>Average Total Cost</b>	\$0.1713	\$0.2191	\$0.2678	--	--	<b>\$0.1997</b>	\$0.1999	-\$0.0002
<b>Volume in Group (Lbs.)</b>	284,458,733	227,495,835	53,489,105	--	--	<b>565,443,673</b>	808,057,584	-242,613,911
<b>% Volume by Group</b>	50.31%	40.23%	9.46%	--	--	<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, 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>2012 WEIGHTED AVERAGE COSTS</b>	<b>2013 WEIGHTED AVERAGE COSTS</b>	<b>% CHANGE</b>
<b>NFDM Powder Pounds</b>	808,057,584	565,443,673	-30.02%

#### **SUMMARY OF COSTS**

Packaging Expense	0.0142	0.0145	2.11%
Processing Labor	0.0414	0.0484	16.91%
Processing Non-Labor	0.1162	0.1122	-3.44%
Gen & Admin Expenses	0.0147	0.0130	-11.56%
Return On Investment	0.0134	0.0116	-13.43%
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Manufacturing Costs - per Lb.	0.1999	0.1997	-0.10%

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

Natural Gas & Fuel Oil	0.0254	0.0267	5.12%
Electricity	0.0161	0.0164	1.86%
Sewer,Water,Garbage	0.0062	0.0065	4.84%
Depreciation	0.0182	0.0157	-13.74%
Property Taxes	0.0030	0.0024	-20.00%
Insurance	0.0012	0.0011	-8.33%
Repairs & Maintenance	0.0109	0.0130	19.27%
Plant Supplies	0.0173	0.0199	15.03%
Outside Storage	0.0089	0.0000	-100.00%
Rent-Plant & Equip	0.0008	0.0011	37.50%
Outside Testing & Grading	0.0056	0.0065	16.07%
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Gen & Admin Payroll	0.0046	0.0050	8.70%
Short-Term Interest	0.0047	0.0036	-23.40%
Professional Services	0.0004	0.0004	0.00%
Headquarter Expenses	0.0030	0.0024	-20.00%
Other Misc.Expenses	0.0046	0.0045	-2.17%
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Total Non-Labor & G&A Exps	0.1309	0.1252	-4.35%

#### **MISC. INFORMATION**

Payroll per Employee-Plant	\$82,643	\$87,081	5.37%
Total Book Value of Assets	\$65,936,404	\$48,083,326	-27.08%
Book Value of Assets per Lb.	0.2729	0.2283	-16.34%

## CHEESE MANUFACTURING COSTS

CURRENT Study Period: January through December 2013  
With Comparison to the same time period Prior Year (2012)

- 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 12.11 lbs. of cheese per hundredweight of milk. The weighted average moisture was 37.20% and the weighted average vat tests were 4.28% fat and 9.38% SNF.

### Breakdown of Cheese Manufacturing Costs - January through December 2013

Categories	Total Cost One Group	CURRENT Weighted Average Cost All Plants Jan-Dec 2013	PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2012	Actual Difference Current Less Prior Year
<i>Dollars Per Pound of Cheese</i>				
Number of Plants	4	4	4	0
Processing Labor	\$0.0584	<b>\$0.0584</b>	\$0.0559	\$0.0025
Processing Non-Labor	\$0.0821	<b>\$0.0821</b>	\$0.0829	-\$0.0008
Packaging	\$0.0278	<b>\$0.0278</b>	\$0.0250	\$0.0028
Misc. Ingredients	\$0.0280	<b>\$0.0280</b>	\$0.0262	\$0.0018
General & Administrative	\$0.0286	<b>\$0.0286</b>	\$0.0235	\$0.0051
Return on Investment	\$0.0042	<b>\$0.0042</b>	\$0.0036	\$0.0006
<b>Average Total Cost</b>	\$0.2291	<b>\$0.2291</b>	\$0.2171	\$0.0120

**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, 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>2012</b>	<b>2013</b>	
	<b>WEIGHTED</b>	<b>WEIGHTED</b>	
	<b>AVERAGE</b>	<b>AVERAGE</b>	<b>%</b>
	<b>COSTS</b>	<b>COSTS</b>	<b>CHANGE</b>
<b>Cheddar Cheese Pounds</b>			
<b>SUMMARY OF COSTS</b>			
Misc. Ingredient Costs	0.0262	0.0280	6.87%
Packaging Expense	0.0250	0.0278	11.20%
Processing Labor	0.0559	0.0584	4.47%
Processing Non-Labor	0.0829	0.0821	-0.97%
Gen & Admin Expenses	0.0235	0.0286	21.70%
Return On Investment	0.0036	0.0042	16.67%
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Manufacturing Costs - per Lb.	0.2171	0.2291	5.53%
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#### **SELECTED EXPENSES PER LB.**

Natural Gas & Fuel Oil	0.0054	0.0055	1.85%
Electricity	0.0062	0.0067	8.06%
Sewer & Whey Disposal	0.0042	0.0049	16.67%
Depreciation	0.0084	0.0094	11.90%
Property Taxes	0.0013	0.0014	7.69%
Insurance	0.0016	0.0020	25.00%
Repairs & Maintenance	0.0161	0.0179	11.18%
Plant Supplies	0.0150	0.0167	11.33%
Outside Storage	0.0057	0.0000	-100.00%
Rent - Plant & Equipment	0.0150	0.0144	-4.00%
Outside Testing & Grading	0.0016	0.0015	-6.25%
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Gen & Admin Payroll	0.0142	0.0172	21.13%
Short-Term Interest	0.0003	0.0002	-33.33%
Professional Services	0.0022	0.0030	36.36%
Headquarter Expenses	0.0029	0.0031	6.90%
Other Misc. Expenses	0.0064	0.0068	6.25%
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Total Non-Labor & G&A Exps	0.1065	0.1107	3.94%

#### **MISC. INFORMATION**

Payroll per Employee-Plant	\$60,927	\$63,408	4.07%
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<b>FINISHED MOISTURE</b>	37.25	37.20	-0.13%
VAT FAT	4.20	4.28	1.90%
VAT SNF	9.38	9.38	0.00%
VAT YIELD	12.17	12.11	-0.49%