



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

Karen Ross, Secretary

December 9, 2015

TO ALL INTERESTED PARTIES:

This report represents the latest nonfat dry milk (NFDM), bulk butter, and Cheddar cheese Manufacturing Cost Exhibit for the period of January through December 2014. 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 2005.

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, 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.

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 4.854% for 2014.

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 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	--	--
Jan-Dec 2014	Dec-15	\$0.1843	7	\$0.2011	9	\$0.2355	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 2014
With Comparison to the same time period Prior Year (2013)

- Manufacturing cost data were collected and summarized from seven California butter plants. The seven plants processed 606.86 million pounds of butter during the 12-month study period, January through December 2014, representing 99.95% 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 2014

Categories	Low Cost Group	High Cost Group	Range of Costs		CURRENT Weighted Average Cost All Plants Jan-Dec 2014	PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2013	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	\$0.0745	\$0.0676	\$0.0475	\$0.1087	\$0.0708	\$0.0642	\$0.0066
Processing Non-Labor	\$0.0610	\$0.0701	\$0.0520	\$0.1442	\$0.0658	\$0.0643	\$0.0015
Packaging	\$0.0135	\$0.0131	\$0.0122	\$0.0140	\$0.0133	\$0.0136	-\$0.0003
Misc. Ingredients	\$0.0030	\$0.0037	\$0.0028	\$0.0044	\$0.0034	\$0.0028	\$0.0006
General & Administrative	\$0.0163	\$0.0267	\$0.0071	\$0.0378	\$0.0218	\$0.0177	\$0.0041
Return on Investment	\$0.0081	\$0.0102	\$0.0025	\$0.0194	\$0.0092	\$0.0098	-\$0.0006
Average Total Cost	\$0.1764	\$0.1914	--	--	\$0.1843	\$0.1724	\$0.0119
Volume in Group (Lbs.)	286,636,525	320,221,945	--	--	606,858,470	631,399,397	-24,540,927
% Volume by Group	47.20%	52.80%	--	--	100.0%	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.

	2013 WEIGHTED AVERAGE COSTS	2014 WEIGHTED AVERAGE COSTS	% CHANGE
All Butter Pounds	631,399,397	606,858,470	-3.89%
Bulk Butter Pounds	269,844,701	234,234,621	-13.20%
SUMMARY OF COSTS			
Misc. Ingredient Costs	0.0028	0.0034	21.43%
Packaging Expense	0.0136	0.0133	-2.21%
Processing Labor	0.0642	0.0708	10.28%
Processing Non-Labor	0.0643	0.0658	2.33%
Gen & Admin Expenses	0.0177	0.0218	23.16%
Return On Investment	0.0098	0.0092	-6.12%
Manufact Costs - per Lb.	0.1724	0.1843	6.90%

SELECTED EXPENSES PER LB.

Natural Gas & Fuel Oil	0.0025	0.0024	-4.00%
Electricity	0.0100	0.0099	-1.00%
Sewer,Water,Garbage	0.0051	0.0045	-11.76%
Depreciation	0.0136	0.0147	8.09%
Property Taxes	0.0020	0.0026	30.00%
Insurance	0.0014	0.0017	21.43%
Repairs & Maintenance	0.0101	0.0099	-1.98%
Plant Supplies	0.0147	0.0145	-1.36%
Rent-Plant & Equip	0.0006	0.0007	16.67%
Outside Testing & Grading	0.0023	0.0025	8.70%
Gen & Admin Payroll	0.0067	0.0092	37.31%
Short-Term Interest	0.0049	0.0052	6.12%
Professional Services	0.0008	0.0008	0.00%
Headquarter Expenses	0.0027	0.0029	7.41%
Other Misc.Expenses	0.0046	0.0061	32.61%

Total Non-Labor & G&A Exps	0.0820	0.0876	6.83%
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MISC. INFORMATION

Payroll per Employee-Plant	\$84,674	\$86,646	2.33%
Total Book Value of Assets	\$11,300,149	\$9,539,483	-15.58%
Book Value of Assets per Lb.	0.2083	0.2037	-2.21%

NONFAT DRY MILK MANUFACTURING COSTS

CURRENT Study Period: January through December 2014
With Comparison to the same time period Prior Year (2013)

- Manufacturing cost data were collected and summarized from nine California NFDM plants. The nine plants processed 708.22 million pounds of NFDM during the 12-month study period, January through December 2014, representing 97.96% of the NFDM processed in California.
- The volume includes NFDM, both animal and human consumption. NFDM for human consumption represented 99.66% of the 708.22 million pounds of NFDM processed, and NFDM for animal consumption represented 0.34%.
- 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 2014

Categories	Low Cost Group	Medium Cost Group	High Cost Group	Range of Costs		CURRENT Weighted Average Cost All Plants Jan-Dec 2014	PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2013	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	\$0.0432	\$0.0433	\$0.0817	\$0.0278	\$0.0982	\$0.0460	\$0.0484	-\$0.0024
Processing Non-Labor	\$0.0930	\$0.1272	\$0.1599	\$0.0885	\$0.2341	\$0.1133	\$0.1122	\$0.0011
Packaging	\$0.0155	\$0.0149	\$0.0147	\$0.0136	\$0.0159	\$0.0152	\$0.0145	\$0.0007
General & Administrative	\$0.0115	\$0.0166	\$0.0207	\$0.0073	\$0.0267	\$0.0145	\$0.0130	\$0.0015
Return on Investment	\$0.0058	\$0.0195	\$0.0064	\$0.0022	\$0.0236	\$0.0121	\$0.0116	\$0.0005
Average Total Cost	\$0.1690	\$0.2215	\$0.2834	--	--	\$0.2011	\$0.1997	\$0.0014
Volume in Group (Lbs.)	335,576,493	323,029,889	49,617,071	--	--	708,223,453	565,443,673	142,779,780
% Volume by Group	47.38%	45.61%	7.01%	--	--	100.0%	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.

	2013 WEIGHTED AVERAGE COSTS	2014 WEIGHTED AVERAGE COSTS	% CHANGE
NFDM Powder Pounds	565,443,673	708,223,453	25.25%

SUMMARY OF COSTS

Packaging Expense	0.0145	0.0152	4.83%
Processing Labor	0.0484	0.0460	-4.96%
Processing Non-Labor	0.1122	0.1133	0.98%
Gen & Admin Expenses	0.0130	0.0145	11.54%
Return On Investment	0.0116	0.0121	4.31%
Manufact Costs - per Lb.	0.1997	0.2011	0.70%

SELECTED EXPENSES PER LB.

Natural Gas & Fuel Oil	0.0267	0.0242	-9.36%
Electricity	0.0164	0.0167	1.83%
Sewer, Water, Garbage	0.0065	0.0072	10.77%
Depreciation	0.0157	0.0177	12.74%
Property Taxes	0.0024	0.0031	29.17%
Insurance	0.0011	0.0014	27.27%
Repairs & Maintenance	0.0130	0.0132	1.54%
Plant Supplies	0.0199	0.0189	-5.03%
Rent-Plant & Equip	0.0011	0.0009	-18.18%
Outside Testing & Grading	0.0065	0.0072	10.77%
Gen & Admin Payroll	0.0050	0.0062	24.00%
Short-Term Interest	0.0036	0.0037	2.78%
Professional Services	0.0004	0.0004	0.00%
Headquarter Expenses	0.0024	0.0023	-4.17%
Other Misc. Expenses	0.0045	0.0047	4.44%

Total Non-Labor & G&A Exps	0.1252	0.1278	2.08%
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MISC. INFORMATION

Payroll per Employee-Plant	\$87,081	\$87,463	0.44%
Total Book Value of Assets	\$48,083,326	\$56,836,293	18.20%
Book Value of Assets per Lb.	0.2283	0.2494	9.24%

CHEESE MANUFACTURING COSTS

CURRENT Study Period: January through December 2014
With Comparison to the same time period Prior Year (2013)

- 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 12.40 lbs. of cheese per hundredweight of milk. The weighted average moisture was 37.13% and the weighted average vat tests were 4.42% fat and 9.43% SNF.

Breakdown of Cheese Manufacturing Costs - January through December 2014

Categories	Total Cost One Group	CURRENT Weighted Average Cost All Plants Jan-Dec 2014	PRIOR YEAR Weighted Average Cost All Plants Jan-Dec 2013	Actual Difference Current Less Prior Year
	<i>Dollars Per Pound of Cheese</i>			
Number of Plants	4	4	4	0
Processing Labor	\$0.0581	\$0.0581	\$0.0584	-\$0.0003
Processing Non-Labor	\$0.0858	\$0.0858	\$0.0821	\$0.0037
Packaging	\$0.0244	\$0.0244	\$0.0278	-\$0.0034
Misc. Ingredients	\$0.0281	\$0.0281	\$0.0280	\$0.0001
General & Administrative	\$0.0338	\$0.0338	\$0.0286	\$0.0052
Return on Investment	\$0.0053	\$0.0053	\$0.0042	\$0.0011
Average Total Cost	\$0.2355	\$0.2355	\$0.2291	\$0.0064

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.

	2013 WEIGHTED AVERAGE COSTS	2014 WEIGHTED AVERAGE COSTS	% CHANGE
Cheddar Cheese Pounds			
SUMMARY OF COSTS			
Misc. Ingredient Costs	0.0280	0.0281	0.36%
Packaging Expense	0.0278	0.0244	-12.23%
Processing Labor	0.0584	0.0581	-0.51%
Processing Non-Labor	0.0821	0.0858	4.51%
Gen & Admin Expenses	0.0286	0.0338	18.18%
Return On Investment	0.0042	0.0053	26.19%
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Manufact Costs - per Lb.	0.2291	0.2355	2.79%
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SELECTED EXPENSES PER LB.			
Natural Gas & Fuel Oil	0.0055	0.0063	14.55%
Electricity	0.0067	0.0059	-11.94%
Sewer & Whey Disposal	0.0049	0.0035	-28.57%
Depreciation	0.0094	0.0112	19.15%
Property Taxes	0.0014	0.0018	28.57%
Insurance	0.0020	0.0021	5.00%
Repairs & Maintenance	0.0179	0.0194	8.38%
Plant Supplies	0.0167	0.0159	-4.79%
Rent - Plant & Equipment	0.0144	0.0147	2.08%
Outside Testing & Grading	0.0015	0.0036	140.00%
Gen & Admin Payroll	0.0172	0.0195	13.37%
Short-Term Interest	0.0002	0.0004	100.00%
Professional Services	0.0030	0.0055	83.33%
Headquarter Expenses	0.0031	0.0020	-35.48%
Other Misc. Expenses	0.0068	0.0078	14.71%
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Total Non-Labor & G&A Exps	0.1107	0.1196	8.04%
MISC. INFORMATION			
Payroll per Employee-Plant	\$63,408	\$66,962	5.61%
FINISHED MOISTURE	37.20	37.13	-0.19%
VAT FAT	4.28	4.42	3.27%
VAT SNF	9.38	9.43	0.53%
VAT YIELD	12.11	12.40	2.39%