



Hearing Background Resource

Dairy Industry Statistics Related to Hearing Issues and the California Milk Pricing and Pooling Program

The intent of this document is to assist in the understanding of the issues raised at a public hearing, within the context of the economic regulation of the dairy industry. It applies specifically to the California Milk Pricing and Pooling programs and is also useful in understanding the operation of federal milk marketing orders.

THE CALL OF THE HEARING

The California Department of Food and Agriculture (Department) has scheduled a public hearing to consider amendments to the Stabilization and Marketing Plans for Market Milk for the Northern and Southern California Marketing Areas (Stab Plans). The hearing will be held on May 31 and June 1, 2012, at 9:00 a.m., at the Department of Food and Agriculture Auditorium, 1220 N Street, Sacramento.

The Secretary of Food and Agriculture called a public hearing in response to petitions received from Western United Dairymen and The Coalition (California Dairies, Inc., Dairy Farmers of America-Western Area Council, Land O'Lakes, Inc., Security Milk Producers Association, Milk Producers Council, California Dairy Campaign, Alliance of Western Milk Producers), to consider amendments to the Class 4b pricing formula. The hearing will also consider the factual basis, evidence and the legal authority upon which to make any and/or all of the proposed amendments to the Plans.

DEPARTMENT EXHIBITS

This document utilizes informational resources including the Departmental Exhibits. These exhibits will be made public on May 24, 2012, and will be entered into the hearing record on May 31, 2012.

ECONOMIC DAIRY REGULATIONS

California Food and Agricultural Code Section 61801, *et seq.*, provides the authority, procedures, and standards for establishing minimum farm prices by the Department for the various classes of milk that processors (handlers) must pay for milk purchased from dairy farmers (producers). These statutes provide for the formulation and adoption of the Stab Plans for Market Milk.

The Gonsalves Milk Pooling Act, California Food and Agricultural Code Section 62700, *et seq.*, authorizes the Secretary to operate a statewide pooling system under specified guidelines. These statutes provide for the formulation and adoption of Milk Pooling Plans for Market Milk (Pool Plan).

These statutes identify legal requirements and public policies that the Department is charged with implementing and enforcing. The determinations resulting from any hearing are made pursuant to the authority vested in the Department by statute and in furtherance of the important State purposes embodied in the governing statutes.

California is not part of the federal milk-marketing order system; it has its own state-specific, milk marketing program. Currently there are two marketing areas: Northern California and Southern California. Each marketing area has a separate but essentially identical Stabilization and Marketing Plan. Each plan provides formulas for pricing five classes of milk. Both marketing areas are covered by the single Pooling Plan.

CALIFORNIA DAIRY INDUSTRY

In 2011, California was the largest milk producing state in the U.S. California dairy farmers marketed 41.4 billion pounds of milk, which represented 21 percent of the nation's marketings. California recorded decreases in total cow and dairy numbers for 2011 compared to the previous year. In 2010, California had more cows than any other state in the U.S. representing 19.2 percent of the nation's total herd, up from 17.5 percent in 2001.

INDUSTRY CONDITIONS RELATIVE TO THE STATUTORY CRITERIA

Legislative Declarations — The following are declarations made by the statutes under which the Pool Plan and the Stab Plans are promulgated regarding the dairy industry's effects on the public's health and welfare. The pertinent Food and Agricultural Code sections follow each declaration.

1. The production and distribution of milk is a business affected with a public interest. Thus, the police powers of this state may be used for protection of the public health and welfare (§61801 and §62700).
2. The production and maintenance of an adequate supply of milk is vital to the public health and welfare (§61802(b) and §62701).
3. Health regulations alone are insufficient to prevent economic disturbances in the production of milk. Thus in the absence of economic regulation, the potential exists for economic disruption which may constitute a menace to the public health and welfare (§61802(c) and §61802(d)).
4. By threatening industry stability, unfair, unjust, destructive and demoralizing trade practices constitute a menace to the public health and welfare. Thus, the regulatory provisions should promote intelligent production and orderly marketing, and should eliminate economic waste, destructive trade practices, and improper accounting (§61802(e) and §61701).
5. To promote the public health and welfare, it is essential to establish minimum producer prices at fair and reasonable levels (§61802(h)).
6. The regulatory provisions should result in uniformity of cost to handlers and should not restrict the free movement of fluid milk (§61805(b) and §62720).
7. The regulatory provisions should help develop and maintain satisfactory marketing conditions, and bring about and maintain a reasonable amount of stability and prosperity (§61805(d)).



The relevant statutes recognize that conditions affecting the California dairy industry are subject to change over time. As such, the Department's regulation of the California dairy industry in accordance with the governing statutes and the public interest must be modified as appropriate, as necessary, to address issues created by changing conditions. In addition, a dynamic industry, such as the California dairy industry, requires that the Department ensure that economic regulations are modified when necessary to ensure that the Pool Plan and the Stab Plans continue to implement state policies and promote the public health and welfare. Since the beginning of economic regulation in 1935, much has changed:

- Dramatic increases in total milk production have been matched by equally dramatic decreases in numbers of dairy farms and dairy processing plants. From 1950 to 2011, there has been a six-fold increase in milk production from 6.0 billion pounds to 41.4 billion pounds. Data on numbers of producers and processors is not as extensive. However, from 1950 to 2011 there was a 91 percent decline in number of dairy farmers from 19,428 to 1,668. From 1960 to 2011, the number of dairy processors declined about 80 percent from 600 to 120. In addition to the decline in numbers, dairy processors have become more specialized. In 1960, many of the 600 processors made multiple class products. In 2011, most of the 120 processors specialized in only one or two classes.

- As a percent of total milk fat production, the fluid milk product share declined from 65 percent in 1952 to 8 percent in 2011 attributed to: increased milk production, decreased consumption of fluid products, and introduction of lowfat milk.
- The declining importance of milk fat has resulted in changes in producer pricing. Pricing was fat-based until 1955; fat/skim-based from 1955 to 1962; mixed fat/skim and fat/solids-not-fat-based from 1962 to 1969; and fat/solids-not-fat-based since 1969.
- The number of classes of milk has changed with changes in production and the marketing of dairy products: four classes prior to 1950; three classes from 1950 to 1968; four classes from 1968 to 1982; and five classes since 1982.
- Technology has improved the ability to ship bulk and packaged milk greater distances. Marketing areas were consolidated to reflect this technology. In the mid-1950's, there were 37 marketing areas in California; currently, there are only two.

SUPPLY, DEMAND, AND PRICES TO CONSUMERS

Many factors ultimately determine milk production. However, the most obvious ones are the number of milk cows and milk production per cow. More complex factors (output prices, input costs, weather, and environment) all affect cow numbers and production per cow.

Table 1 - COWS ON FARM

	Calif.	Other Western ^{1/}	Other U.S.	U.S.	Calif. Share	Other Western Share
	Milk Cows in Thousands				Percent	
2001	1,589	1,360	6,154	9,103	17.5%	14.9%
2002	1,648	1,445	6,046	9,139	18.0%	15.8%
2003	1,688	1,486	5,907	9,081	18.6%	16.4%
2004	1,725	1,512	5,773	9,010	19.1%	16.8%
2005	1,755	1,557	5,738	9,050	19.4%	17.2%
2006	1,780	1,618	5,739	9,137	19.5%	17.7%
2007	1,813	1,638	5,738	9,189	19.7%	17.8%
2008	1,844	1,697	5,774	9,315	19.8%	18.2%
2009	1,796	1,664	5,743	9,203	19.5%	18.1%
2010	1,754	1,686	5,679	9,119	19.2%	18.5%
2011	1,769	1,743	5,682	9,194	19.2%	19.0%
Percent Change						
10 year average ^{2/}	1.1%	2.5%	-0.8%	0.1%		
Current ^{3/}	0.9%	3.4%	0.1%	0.8%		

^{1/} Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

^{2/} 2001 to 2011

^{3/} 2011 compared to 2010

Source: NASS-USDA

Table 1 shows that through 2007, California and other Western States were increasing their milk cow numbers, while in the rest of the nation, cow numbers were declining. From 2001 to 2011, California dairy cow numbers increased at a 1.1 percent annualized rate, with a 0.9 percent increase when comparing 2011 to 2010. The year 2008 showed an increase in cow numbers for California, Western States, and the U.S., only to show a decline in 2009. In 2011, California's share of U.S. total cow numbers was 19.2 percent.

Table 2 - MILK PER COW

	Calif.	Other Western ^{1/}	Other U.S.	U.S.	Calif. Relative to Other U.S.	Other West Relative to Other U.S.
	Milk Per Cow In Pounds Per Year				Percent	
2001	20,904	20,774	16,877	18,162	124%	123%
2002	21,277	21,079	17,291	18,608	123%	122%
2003	20,993	21,219	17,501	18,759	120%	121%
2004	21,139	21,149	17,736	18,960	119%	119%
2005	21,404	21,725	18,393	19,550	116%	118%
2006	21,815	21,970	18,715	19,895	117%	117%
2007	22,440	22,171	18,936	20,204	119%	117%
2008	22,344	22,524	19,147	20,395	117%	118%
2009	22,000	22,588	19,543	20,573	113%	116%
2010	23,025	23,039	20,007	21,148	115%	115%
2011	23,438	23,210	20,121	21,345	116%	115%
Percent Change						
10 year average ^{2/}	1.2%	1.1%	1.8%	1.6%		
Current ^{3/}	1.8%	0.7%	0.6%	0.9%		

^{1/} Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

^{2/} 2001 to 2011

^{3/} 2011 compared to 2010

Source: NASS-USDA

In 2001, California production per cow was 24 percent higher than the average of the rest of the nation, while in 2011, it was 16 percent higher. Comparing 2011 to 2010, California production per cow was up 1.8 percent, while U.S. milk per cow was up 0.9 percent.

Table 3 - MILK PRODUCTION

	Calif.	Other Western ^{1/}	Other U.S.	U.S.	Calif. Share	Other Western Share
	Milk Production in Million Pounds Per Year				Percent	
2001	33,217	28,253	103,862	165,332	20.1%	17.1%
2002	35,065	30,459	104,539	170,063	20.6%	17.9%
2003	35,437	31,532	103,379	170,348	20.8%	18.5%
2004	36,465	31,978	102,389	170,832	21.3%	18.7%
2005	37,564	33,826	105,541	176,931	21.2%	19.1%
2006	38,830	35,547	107,405	181,782	21.4%	19.6%
2007	40,683	36,316	108,655	185,654	21.9%	19.6%
2008	41,203	38,223	110,556	189,982	21.7%	20.1%
2009	39,512	37,587	112,235	189,334	20.9%	19.9%
2010	40,385	38,844	113,619	192,848	20.9%	20.1%
2011	41,462	40,455	114,328	196,245	21.1%	20.6%
Percent Change						
10 year average ^{2/}	2.2%	3.7%	1.0%	1.7%		
Current ^{3/}	2.7%	4.1%	0.6%	1.8%		

^{1/} Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

^{2/} 2001 to 2011

^{3/} 2011 compared to 2010

Source: NASS-USDA

Table 3 shows that for 2011, milk production showed across-the-board increases compared to 2010. The net result was a 1.8 percent increase in milk production for the nation as a whole. From 2001 to 2011, California milk production increased at a 2.2 percent annualized rate, with a 2.7 percent increase when comparing 2011 to 2010. From 2001 to 2011, California's share of U.S. milk production increased from 20.1 percent to 21.1 percent. For 2011, California and the Western States accounted for 41.7 percent of the nation's milk production.

Table 4 - POOL UTILIZATION
Market Share Based on Total Solids Utilization

	Class 1	Class 2	Class 3	Class 4a	Class 4b	Total
2001	18.6%	4.2%	5.2%	28.6%	43.4%	100%
2002	17.8%	4.0%	4.5%	29.8%	43.9%	100%
2003	17.7%	4.3%	4.6%	28.2%	45.2%	100%
2004	15.7%	4.2%	4.4%	29.4%	46.2%	100%
2005	14.7%	4.3%	4.1%	28.7%	48.3%	100%
2006	14.5%	4.4%	3.8%	28.8%	48.5%	100%
2007	14.3%	4.5%	3.8%	30.0%	47.4%	100%
2008	14.3%	4.5%	3.7%	34.3%	43.2%	100%
2009	15.3%	5.3%	3.9%	35.2%	40.2%	100%
2010	15.0%	5.4%	3.8%	34.8%	41.0%	100%
2011	13.5%	4.9%	3.5%	35.0%	43.1%	100%
Percent Change						
10 year average ^{1/}	-3.1%	1.5%	-4.1%	2.1%	-0.1%	0.0%
Current ^{2/}	-10.0%	-9.0%	-8.4%	0.5%	5.2%	0.0%

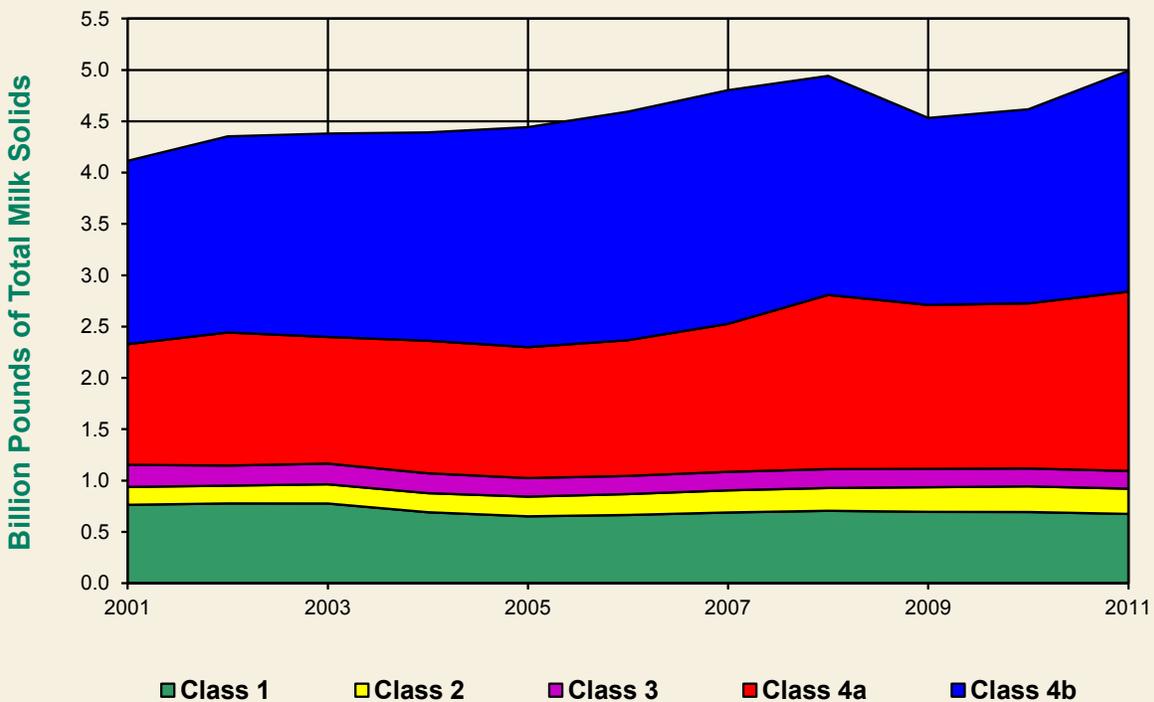
^{1/} 2001 to 2011

^{2/} 2011 to 2010

Source: CDFA

Table 4 shows the relative change in pooled milk utilization. Figure 1 shows the absolute change in utilization. Classes 4a and 4b continue to show the largest share of milk utilization.

Figure 1 - HOW MILK IS UTILIZED
California, 2001 to 2011

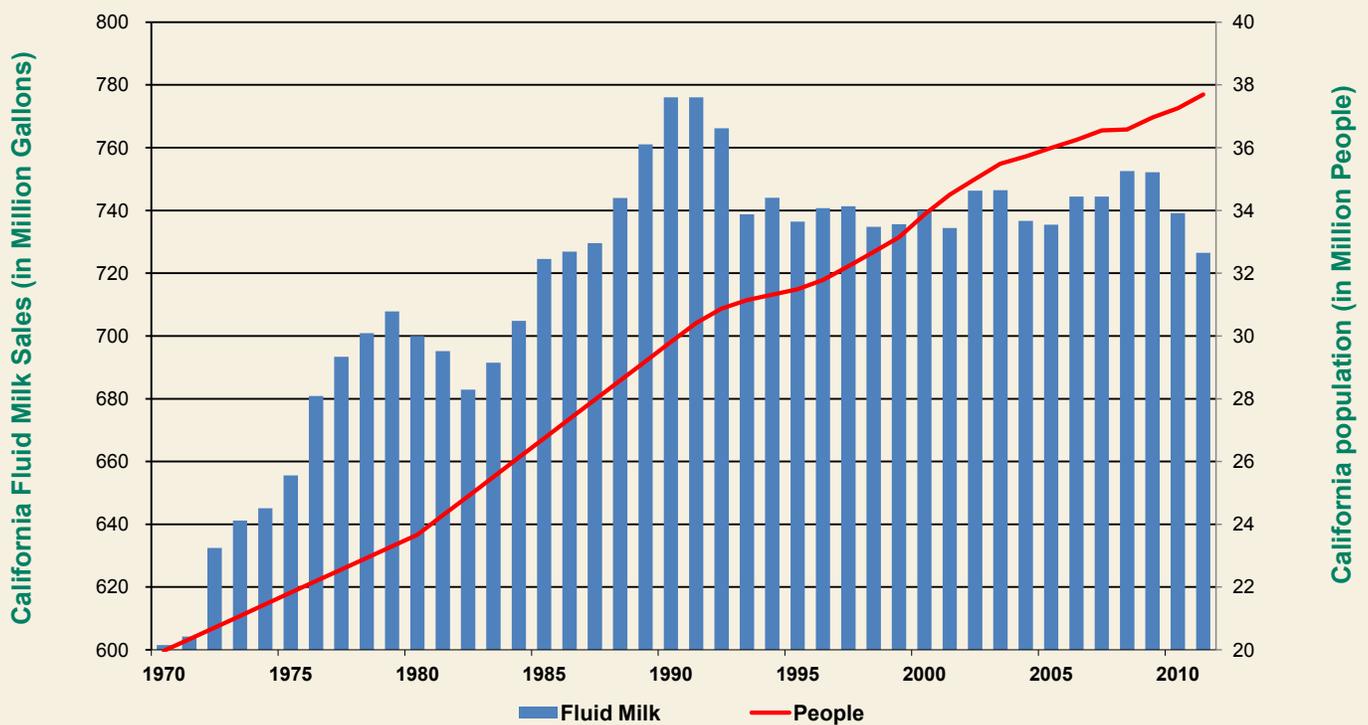


Source: CDFA

From 1970 to 2011, California's share of national milk production increased from 8.1 percent to 21.1 percent. Over that same period, California's share of U.S. population increased from 9.8 percent to 12.1 percent. California's share of various dairy products has also changed over time. Some have tracked the increases in milk production; others have been more associated with population trends (see Figures 2 through 7). These figures represent all five classes of milk, showing California's production share of six selected dairy products, and, in some instances, compare that share to the total production share of the other twelve western states. As defined by USDA, these states are Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

California's share of the nation's milk production greatly exceeds its population share. Therefore, for almost all dairy products, California should be at least self-sufficient, with the potential for exports.

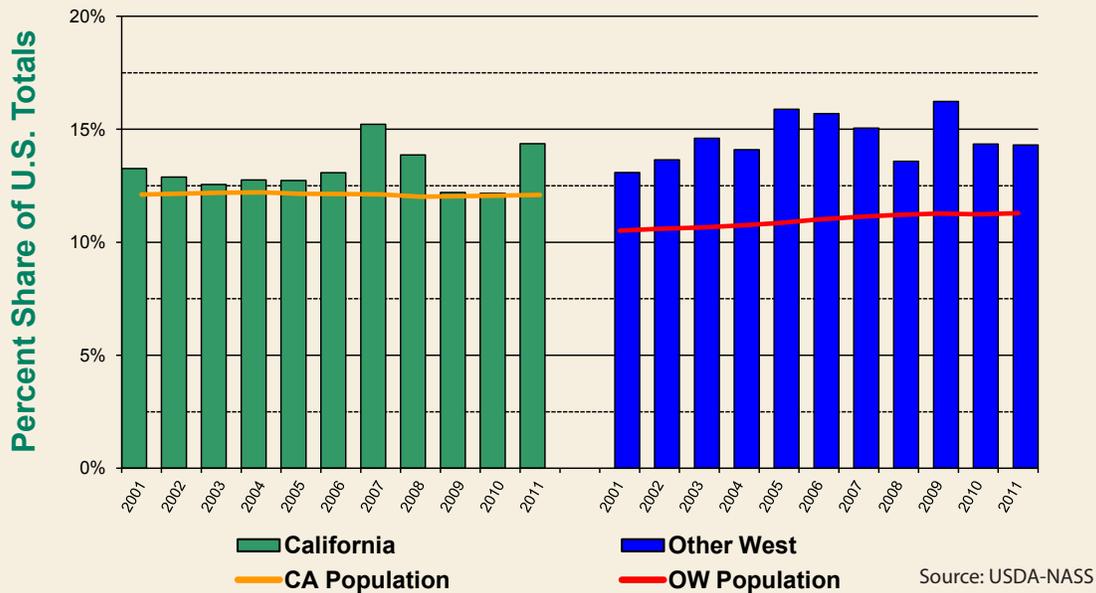
Figure 2 - CALIFORNIA FLUID MILK SALES and CALIFORNIA POPULATION 1970 to 2011



Sources: CDFA, Department of Finance

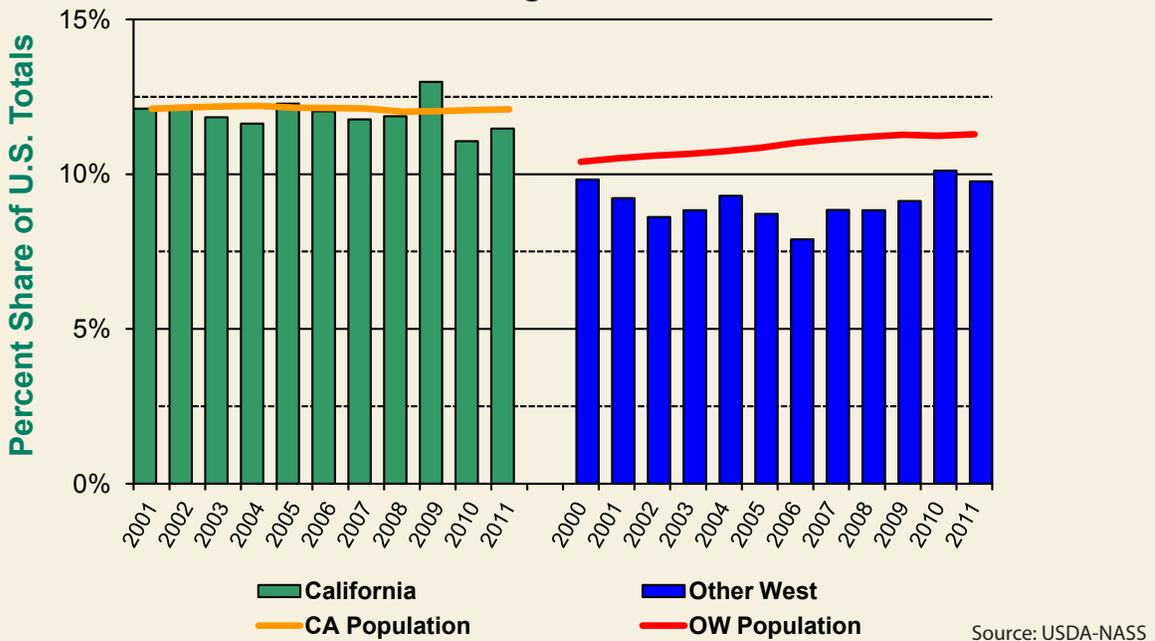
From 1970 to the beginning of the 1990's, California fluid milk sales and the state population followed an increasing trend. However, in 1993, sales dipped and stayed fairly constant over the following 15 years, whereas population remains on the increase (see Figure 2).

Figure 3 - COTTAGE CHEESE ANNUAL PRODUCTION SHARE
 Lowfat, Nonfat and Creamed, Selected Regions
 2001 to 2011



As seen in Figure 3, California’s national share of cottage cheese production has consistently remained at or slightly above its population share. The Western States’ share of the nation’s cottage cheese production consistently exceeds their national population share.

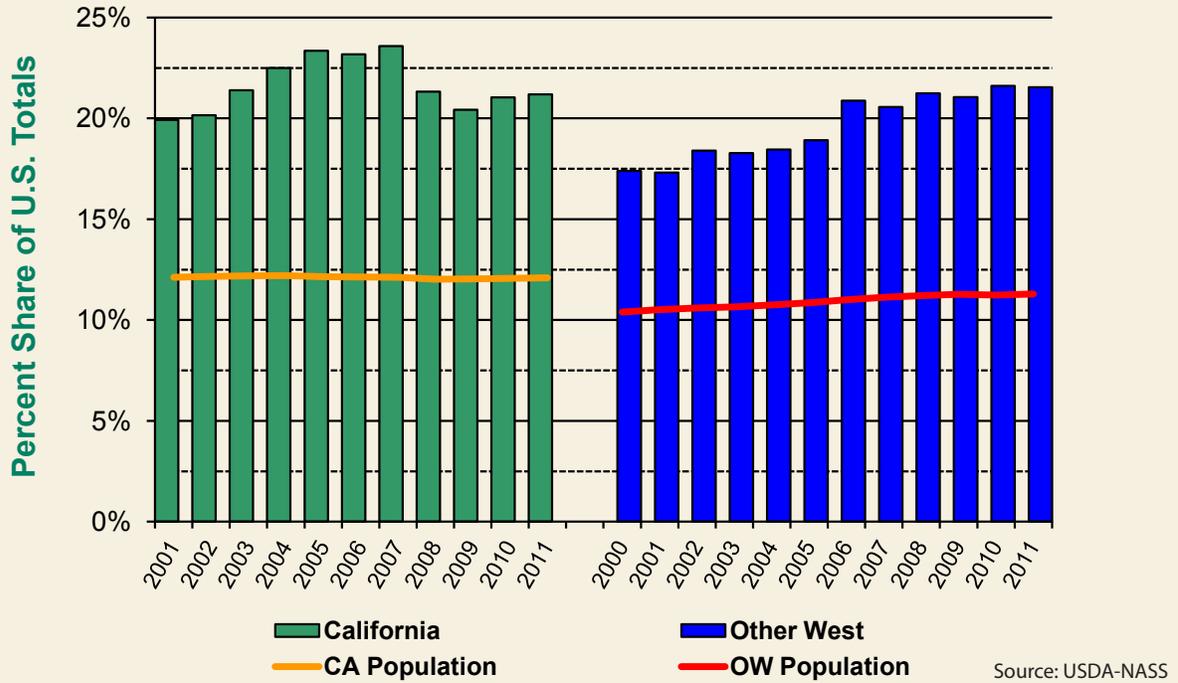
Figure 4 - ALL FROZEN ANNUAL PRODUCTION SHARE
 Selected Regions, 2001 to 2011



Frozen Products includes Hard Regular Ice Cream and Total Lowfat Ice Cream.

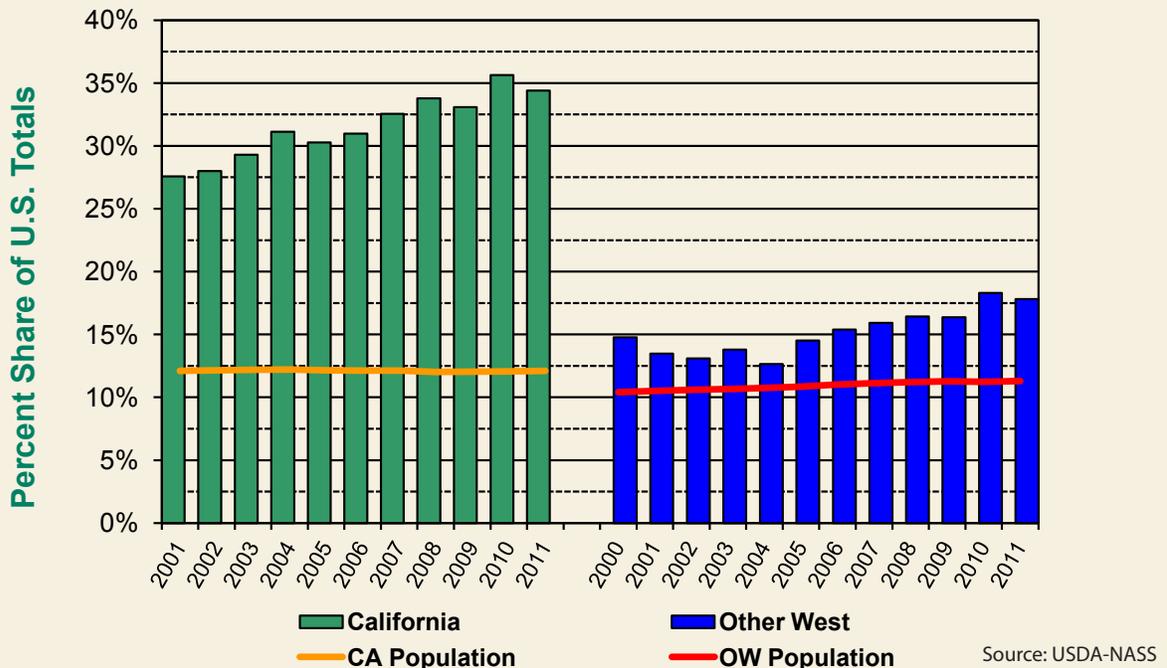
Since 2001, California’s share of the nation’s ice cream production has been fairly consistent with California’s population share (with California’s share of production falling below population share in 2010 and 2011). Other Western States’ share of the nation’s ice cream production has been well below their population share. For 2011, California and the Western States accounted for 20.3 percent of the nation’s ice cream production.

Figure 5 - ALL CHEESE ANNUAL PRODUCTION SHARE
Selected Regions, 2001 to 2011



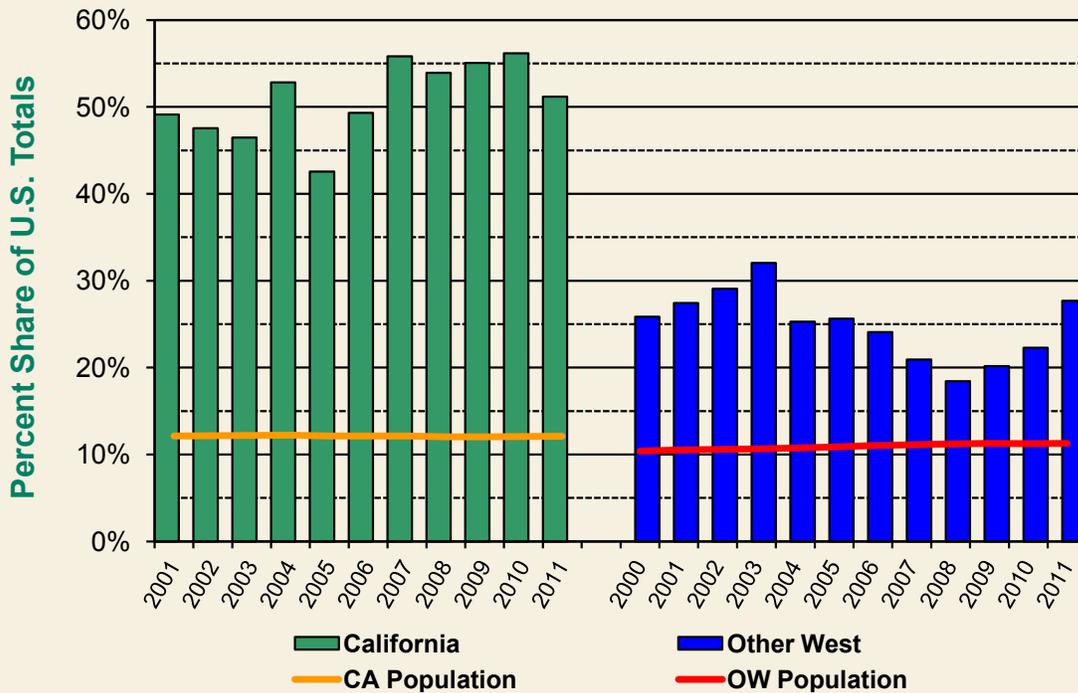
California became self sufficient in total cheese production in the early 1990's. In 2011, California and the other western states accounted for 42.7 percent of the U.S. cheese production (see Figure 5).

Figure 6 - BUTTER ANNUAL PRODUCTION SHARE
Selected Regions, 2001 to 2011



Historic data indicates that since 1970, California's share of the nation's butter and NFDM production has far exceeded California's share of the nation's population. The other western states share of the nation's butter production is similar to their population share while their NFDM share is well above their population share (see Figures 6 and 7). In 2011, California and the other Western States accounted for 52.2 percent of the nation's butter production and 78.9 percent of the nation's NFDM production.

Figure 7 - NFDM ANNUAL PRODUCTION SHARE
Selected Regions, 2001 to 2011



Source: USDA-NASS

Nationally, volatile farm prices in the last few years stemmed from the marketplace balancing dairy product supply and demand. National milk production has remained strong and above previous year levels with prices remaining steady. Table 5 details how butter, block Cheddar cheese, NFDM, and dry whey prices changed, when comparing 2010 to 2011: butter was up 13 percent, block Cheddar cheese was up 21 percent, NFDM was up 31 percent, and Western Dry Whey up 41 percent. Because farm prices are tied directly to commodity prices, increasing commodity prices most often translate into increasing farm prices. California and federal prices for milk used to manufacture cheese products were up 24 percent and up 27 percent, respectively. Average producer prices were up as well. Comparing 2011 to 2010, California overall production costs increased by 15 percent.

Table 5 - DAIRY PRICES AND COSTS
Commodity, Class, and Producer Prices; and Producer Costs

	Unit	2009	2010	2011	\$/Unit	Percent
Commodity Prices						
CME Block Cheddar Cheese	\$/lb.	\$1.30	\$1.50	\$1.81	\$0.31	24%
CME Grade AA Butter	\$/lb.	\$1.24	\$1.73	\$1.96	\$0.23	19%
California NFDM	\$/lb.	\$0.90	\$1.13	\$1.48	\$0.35	39%
Western Dry Whey (mostly)	\$/lb.	\$0.28	\$0.39	\$0.55	\$0.16	57%
Class Prices						
San Francisco California						
Class 1	\$/gallon	\$1.13	\$1.46	\$1.78	\$0.32	28%
	\$/cwt.	\$13.12	\$16.97	\$20.68	\$3.71	28%
Class 2	\$/cwt.	\$10.86	\$14.93	\$18.96	\$4.03	37%
Class 3	\$/cwt.	\$10.81	\$14.88	\$18.91	\$4.03	37%
Class 4a	\$/cwt.	\$10.77	\$14.81	\$18.82	\$4.01	37%
Class 4b	\$/cwt.	\$11.05	\$13.17	\$16.37	\$3.20	29%
Portland Oregon						
Class I	\$/cwt.	\$13.38	\$17.25	\$21.03	\$3.78	28%
Class II	\$/cwt.	\$11.26	\$16.02	\$19.62	\$3.60	32%
Class III	\$/cwt.	\$11.36	\$14.41	\$18.36	\$3.95	35%
Class IV	\$/cwt.	\$10.89	\$15.09	\$19.04	\$3.95	36%
Milk Mailbox Prices						
California	\$/cwt.	\$11.02	\$14.37	\$18.14	\$3.77	34%
All Federal Order Average	\$/cwt.	\$12.82	\$16.29	\$20.20	\$3.91	30%
Producer Costs						
CDFA						
Cost Comparison Summary	\$/cwt.	\$16.86	\$15.19	\$17.40	\$2.21	13%

Sources: AMS-USDA, CDFA

DEPARTMENT PRODUCTION COST DATA

The Cost Comparison Summary is used to monitor the cost of producing milk on dairy farms. A summary is published for each of the four production areas, based on monthly cost of production data. The comparison provides a statewide weighted average of all costs and allowances for each month.

Cost figures for calendar year 2011 increased \$2.09 per hundredweight of milk compared to the same period a year ago. All four areas showed increases in the cost of producing milk with the statewide cost up 15.3 percent.

The following table summarizes the annual average costs for each of the four production cost areas for the calendar years of 2010 and 2011:

Production Areas	Jan-Dec 2010 Average Cost Per Cwt.	Jan-Dec 2011 Average Cost Per Cwt.	Percent Change 2010 vs. 2011
North Coast	\$17.80	\$20.41	14.7%
North Valley	\$13.86	\$15.74	13.6%
South Valley	\$13.57	\$15.71	15.8%
Southern California	\$12.88	\$15.67	21.7%
Statewide Total Cost ¹	\$13.70	\$15.79	15.3%
Total Costs & Allowances ²	\$15.19	\$17.40	14.6%

¹ Weighted average computed based on the following 2011 milk volume percentages: North Coast, 2.20 percent; North Valley, 36.35 percent; South Valley, 54.19 percent; Southern California 7.26 percent

² Includes Statewide Total Costs and Return on Investment and Return on Management

The California Legislature has established statutes requiring the Secretary to consider relevant economic factors, including the cost of management and a reasonable return on investment, when establishing minimum prices (Food and Agriculture Code, Section 62062). The return on investment is based on the Moody's Baa Corporate Bond Index that is published monthly. The returns on investment and management per hundred pounds of milk for 2010 and 2011 are \$1.49 and \$1.61.

FEDERAL DAIRY INCOME PROTECTION PROGRAMS

In addition to federal and State milk-marketing programs which cover some of the nation's Grade A milk, the federal government also maintains two programs that cover all of the nation's Grade A and Grade B milk: the Commodity Credit Corporation and the Milk Income Loss Contract Program.

Commodity Credit Corporation:

Through the Commodity Credit Corporation (CCC), the federal government stands ready to buy unlimited quantities of butter, NFDM, and Cheddar cheese from processors. These federal purchases of dairy products are a reflection of general supply and demand conditions. The CCC prices are currently \$1.05, \$0.80, and \$1.13 per pound, respectively, for butter, NFDM, and block Cheddar cheese.

Milk Income Loss Contract Program:

The 2008 Farm Bill made numerous revisions to the previous program which is currently in effect through September 2012.