

# Consumption of Dairy Products

average family consumption of 29 dairy products surveyed in Oakland and Los Angeles in one-week test

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The fifth of a series of reports of a survey on the consumption of dairy products in urban areas of California made co-operatively by the Department of Home Economics, University of California, California State Department of Agriculture, and the United States Department of Agriculture under the authority of the Research and Marketing Act.

**Only four**—whole fluid milk, cottage cheese, American Cheddar cheese and butter—of 29 different dairy products were consumed by one half or more of 424 representative families in Oakland and 513 families in Los Angeles during a seven-day survey in 1951.

Some form of whole fluid milk—homogenized, plain, and multivitamin—was used by about 90% of the families.

Homogenized milk was used by 75% of the families in Oakland and by 65% in Los Angeles.

American Cheddar cheese was consumed by 67% to 70% of the families and cottage cheese by 59% to 68%.

Butter was used by about 52% of the families in each city.

Comparatively large proportions—46% to 49% of the families—used ice cream.

Evaporated milk was the next most commonly used product—by 37% to 46% of the families.

From 28% to 38% of the families used half and half, and 18% to 24% ate cream cheese, other soft cheese, or hard cheese other than American Cheddar.

Buttermilk was consumed by 14% to 19% of the families and whipping cream by 11% to 17%.

All the other 15 products studied were used by less than 10% of the families.

## Fluid Milk and Cream

Fluid milk, half and half, and cream accounted for almost 72% of the total milk equivalent—approximately the quantity of fluid milk to which the various products, except butter, are equivalent in minerals and protein.

Fluid milk—plain, homogenized, and multivitamin—represented 60% to 64% of the total milk equivalent used. Oakland families on the average consumed 9.2 quarts and the Los Angeles families 10.0 quarts of fluid milks during the week studied. Of these whole milks, homogenized milk was by far the most important because it accounted for 50% of the total milk equivalent in Oakland and 40% in Los Angeles. Oakland families used, on the average, 7.2 quarts of ho-

mogenized milk and the Los Angeles families 6.6 quarts.

The average consumption of butter-milk was about 0.3 quart per family and that of nonfat milk—used by about 8% of the families—was slightly over 0.3 quart per family.

The average consumption of extra fat milk was only 0.07 quart per family in Oakland and 0.36 quart in Los Angeles. It was used by 1% to 3% of the families studied.

Chocolate drink was used by 8.5% of the families in Oakland and by 6% in Los Angeles, the average consumption being less than 0.2 quart per family.

Yogurt was used by 2.4% of the families in Oakland and by 8.6% in Los Angeles but average consumption per family was only 0.1 quart or less.

Whipping cream was the most commonly used type of cream; the average consumption during the week studied was 0.11 pint or 0.12 pound in Oakland and 0.05 pint or 0.06 pound in Los Angeles.

The average consumption of table

cream, used by 6% to 7% of the families, was 0.05 to 0.08 pound.

The total consumption of all types of cream on the average amounted to 0.17 to 0.26 pint or about 0.2 to 0.3 pound per family and accounted for 0.4% of the total milk equivalent.

## Manufactured Products

Manufactured dairy products accounted for about 28% of the total milk equivalent used. The average amounts used were 3.7 pounds in Oakland and 4.0 pounds in Los Angeles. These amounts were equivalent to about 4.0 quarts of fluid milk in Oakland and 4.8 quarts in Los Angeles, in contrast to 10.4 quarts of fluid milk, half and half, and cream used in Oakland and 11.9 quarts in Los Angeles.

Cheese was the most important manufactured product. About 1.2 pounds were used on the average in Oakland and 1.6 pounds in Los Angeles. All kinds of

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Consumption of Fluid Milk, Half and Half, and Cream

Product	Per cent of households using		Average quantity used per household				Per cent of total milk equivalent	
	Oak.	L.A.	by all households in study		by households using		Oak.	L.A.
			Oak.	L.A.	Oak.	L.A.	Oak.	L.A.
<b>Fluid milk</b>								
			qts.	qts.	qts.	qts.		
Whole milk . . . . .	89.4	90.6	9.22	10.05	10.31	11.09	63.8	60.2
Extra fat milk . . . . .	1.2	3.3	0.07	0.36	6.00	10.88	0.5	2.2
Buttermilk . . . . .	13.9	18.9	0.30	0.33	2.18	1.76	2.1	2.0
Nonfat milk . . . . .	8.0	8.2	0.32	0.38	4.01	4.63	2.2	2.3
Chocolate drink . . . . .	8.5	6.0	0.19	0.15	2.20	2.50	1.3	0.9
Yogurt . . . . .	2.4	8.6	0.01	0.10	0.62	1.15	0.1	0.6
Goat milk . . . . .	..	1.0	..	0.09	..	9.15	..	0.5
			lbs.	lbs.	lbs.	lbs.		
Half and Half . . . . .	28.1	38.2	0.57	0.88	2.03	2.30	1.6	2.1
<b>Cream</b>								
Table cream . . . . .	6.1	7.2	0.05	0.08	0.83	1.12	0.1	0.2
Whipping cream . . . . .	17.0	10.9	0.12	0.06	0.69	0.52	0.3	0.1
Whipped cream . . . . .	1.9	4.3	*	0.02	0.21	0.38	*	*
Sour cream . . . . .	1.7	11.3	0.01	0.08	0.39	0.68	*	0.1
All-purpose cream . . . . .	†	2.3	†	0.02	†	0.71	†	*

\* Less than .01 lb. or less than 0.1%.

† All-purpose cream was not on the market in Oakland at the time of the survey.

## DAIRY

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cheese accounted for 18% to 20% of the total milk equivalent used, and for 64% to 71% of the milk equivalent represented by manufactured products. It accounted for 33% to 41% of the total pounds of manufactured dairy products.

American Cheddar was the most important cheese in milk equivalent value. From 0.4 pound to 0.5 pound per family was used on the average representing about 9% of the total milk equivalent used. Cottage cheese also was important because 0.7 to 0.9 pound were used and accounted for 7% or more of the total milk equivalent. From 0.13 pound to 0.2 pound of all other kinds of cheese were used on the average, accounting for 2% to 3% of the total milk equivalent.

Canned milks were the next most important manufactured dairy products. On the average, 1.1 pounds were used by Oakland families and 0.9 pound by the Los Angeles families. These quantities accounted for 5.2% to 7.1% of the total milk equivalent and from one sixth to one fourth of the total milk equivalent provided by manufactured products.

Almost all the canned milk used was evaporated milk. About 1%—or less—of the families used canned infant formula or condensed milk and, therefore, the average quantities used were very small.

Only 0.01 pound to 0.03 pound of dry milk were used per family. Less than 2% of the families in Oakland and about 3% of the families in Los Angeles used non-

fat dry milk and less than 1% used the whole dry milk in each area. Very few families used dry infant formula.

Ice cream, ice milk, and sherbet accounted for less than 3% of the total milk equivalent. About 0.8 pound were used on the average by the families studied.

Ice cream was by far the most popular of the frozen desserts, average consumption being slightly more than 0.7 pound per family.

Almost 4% of the families in each area used sherbet and 3.7% of the families in Los Angeles used ice milk.

Less than 1% of the families in Oakland used ice milk—which was not generally available on the market at the time of the survey.

Slightly over one half pound of butter per family was used in each city. The average consumption of oleomargarine—used by about two thirds of the families—was about 0.7 pound per family. The families also used an average of about one half pound of lard, vegetable oils, and vegetable fats in cooking. About four times as much mayonnaise and cooked salad dressing—0.4 pound per family—as butter was used for sandwich spreads.

### Users of Different Products

As only four products were consumed by one half or more of the families, the average consumption of those families using different products was in most cases quite different from the average of all families in the study.

About 90% of the families used whole fluid milk and, therefore, the average con-

sumption of this group was only about one quart higher than that of all families in the study. However, the differences were more marked for other types of fluid milk, especially for extra fat milk, buttermilk, and nonfat milk.

The families who used half and half consumed an average of 1.9 to 2.1 pints or two pounds or more.

The families using evaporated milk used about 2.3 pounds per family.

The users of cottage cheese averaged 1.2 to 1.4 pounds per family, and the users of American Cheddar cheese averaged 0.6 to 0.7 pounds.

The families using ice cream averaged about twice as much per family—1.5 pounds—as the average of all families.

The average consumption of butter by the families using it was about one pound per family. Those families using oleomargarine also averaged about one pound or slightly more per family.

### Consumption Per Person

The average consumption per 21-meal equivalent person—three meals per day for seven days—of all dairy products, except butter, in terms of milk equivalent was 4.9 quarts in Oakland where the average number of persons per family was 2.93. It was 5.6 quarts in Los Angeles where the average number of persons per family was 2.98.

The average consumption per person of all fluid milk was 3.5 quarts in Oakland and 3.8 quarts in Los Angeles.

The average consumption per person of other dairy products was approximately as follows:

	Oakland	L.A.
	Pounds	
Half and half	0.20	0.29
Evaporated milk	0.36	0.29
American Cheddar cheese	0.14	0.17
Cottage cheese	0.24	0.31
Ice cream	0.24	0.25
Butter	0.18	0.18

One fifth of the families in Oakland and about one tenth of the families in Los Angeles consumed less than three quarts of dairy products in terms of milk equivalent per person during the week studied.

In about 56% of the families in Oakland and 51% in Los Angeles the average consumption of all dairy products per person was from three quarts to six quarts in terms of milk equivalent during the week studied. However, the proportion of families in which consumption was six quarts or more per person was much larger in Los Angeles—38.5%—than in Oakland where it was 24.1%. Over 9% of the families in Los Angeles used nine or more quarts in terms of milk equivalent per person in contrast with only 2.1% in Oakland.

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Consumption of 14 Manufactured Dairy Products

Product	per cent of households using		Average quantity used per household				Per cent of total milk equivalent	
			by all households in study		by households using			
	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.
			lbs.	lbs.	lbs.	lbs.		
<b>Canned milk</b>								
Evaporated milk	46.2	37.0	1.06	0.87	2.28	2.36	6.7	4.9
Condensed milk	0.5	1.0	*	0.01	0.94	1.12	*	0.1
Infant formula	1.2	0.6	0.07	0.03	7.27	5.48	0.4	0.2
<b>Dry milk</b>								
Nonfat dry milk	1.7	3.1	0.01	0.01	0.34	0.35	0.2	0.3
Whole dry milk	0.9	0.2	*	*	0.44	0.14	0.1	*
Infant formula	..	1.4	..	0.02	..	1.36	..	0.4
<b>Cheese</b>								
Cottage cheese	59.4	68.0	0.70	0.93	1.19	1.37	6.9	7.8
American Cheddar cheese	66.7	69.8	0.40	0.50	0.60	0.72	8.9	9.6
<b>Cream and other</b>								
soft cheese	17.7	23.0	0.06	0.07	0.32	0.29	0.4	0.4
Other hard cheese	18.2	24.2	0.07	0.13	0.41	0.55	1.6	2.5
<b>Frozen desserts</b>								
Ice cream	45.8	48.9	0.71	0.75	1.56	1.53	2.8	2.5
Sherbet	3.5	3.7	0.05	0.06	1.30	1.63	*	0.1
Ice milk	0.9	3.7	0.03	0.05	2.81	1.30	*	*
<b>Butter</b>	51.9	52.8	0.53	0.55	1.03	1.03	..	..

\* Less than .01 lb. or less than 0.1%.