

# How Families Buy Dairy Products

retail sources supplied dairy products to a larger proportion of families studied than did delivery service

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The fourth 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 United States Department of Agriculture under the authority of the Research and Marketing Act.

About 87% of the 424 representative families studied in Oakland and about 81% of the 513 families studied in Los Angeles bought some fluid milk, half and half, cream, cottage cheese, or butter in grocery stores during the seven-day period covered by the survey. On the other hand, only 45% of these families in Oakland and 55% in Los Angeles had any of these products delivered.

More than half—52%—of the families in Oakland and 38% of the families in Los Angeles bought all of these major deliverable products which they used during the week in retail grocery stores. About 22% in Oakland and 18% in Los Angeles obtained all of these products in chain stores and 23% in Oakland and 14% in Los Angeles bought all of them from independent stores. From 6% to 7% got them from both chain and independent stores.

Only 10% of the Oakland families and 9% of the Los Angeles families had all their purchases of these products delivered during the week studied. Over 34% of those in Oakland and 43% in Los Angeles bought some in grocery stores and had some delivered. Only a very few families bought their dairy products from other sources such as dairy outlet stores, drug stores, delicatessens, and the like.

The sources at which families purchased their dairy products varied greatly with the kind of product. The proportion of families who had all or some of the whole milk or half and half they used delivered was larger than the proportion who bought cottage cheese and butter in this manner.

In the case of cottage cheese and butter, a large majority of families obtained all their products at the retail grocery store. About 77% of the families bought all their cottage cheese in grocery stores and from 83% to 86% bought all their butter at these stores. About 19% of the families had all their cottage cheese delivered and from 11% to 15% had all their butter delivered. Only a few families had some cottage cheese delivered and bought additional amounts from other sources and none of the families followed this practice in purchasing butter.

Practices in purchasing also varied with the type of whole milk used. Families using homogenized milk tended to buy it at retail grocery stores and families using plain or vitamin milk tended to have it delivered. From 50% to 60% of the families using homogenized milk did not have any of it delivered whereas from 50% to 70% of those using plain or vitamin milk had it all delivered.

From 13% to 15% of the families had some homogenized milk delivered and bought some from retail grocery stores and other sources. About one half of these had in the neighborhood of 75% or more of the milk delivered which indicated that the bulk of their milk was delivered and they supplemented this with occasional purchases at retail stores.

From almost two thirds to three fourths of the families did not have any half and half delivered and from about one fourth to about one third had it all delivered. None of the families in Oakland and only a few in Los Angeles had some delivered and got some from other sources.

Families who had all their homogenized milk delivered consumed, on the average, about one quart more per family during the week studied than those who bought all of it at retail grocery stores. Families in Oakland who bought all their half and half at the grocery store con-

sumed about ¼ pound more than those having it delivered. In Los Angeles those who had it all delivered consumed about ¾ pound more than those buying it only at grocery stores.

The amount of cottage cheese consumed was about the same when all was delivered as when all was bought at the grocery store while the families having all their butter delivered consumed almost one-fifth pound more during the week than those buying it at the retail grocery.

The proportions of families who bought whole milk, half and half, and cottage cheese at retail grocery stores and also had some delivered were small, but these same families consumed more on the average than those who bought these products only at the grocery store or who had them all delivered. In the case of homogenized milk they consumed from one third to one half more and in the case of cottage cheese they consumed almost twice as much as other families.

Of all the homogenized milk consumed about 54% in Oakland—and 40% in Los Angeles—was used by families who bought only at retail stores; from 29% to 33% was used by those who had it delivered only; and about 16% was used by families who bought at both sources.

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Proportions of Households Securing Six Major Deliverable Dairy Products at Different Sources

Source	Homogenized milk		Plain whole milk		Vitamin milk		Half and half		Cottage cheese		Butter	
	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.
Number of households purchasing	318	331 <sup>1</sup>	96	49	10	128	119	195 <sup>1</sup>	252	347 <sup>2</sup>	220	269 <sup>2</sup>
	%	%	%	%	%	%	%	%	%	%	%	%
All sources	100	100	100	100	100	100	100	100	100	100	100	100
All delivered	28.3	34.5	57.3	71.4	60.0	49.2	24.4	33.9	19.0	18.7	11.4	15.2
Some delivered and	12.6	15.4	8.3	12.3	...	12.5	...	3.6	2.0	1.2	...	...
1. Some at retail grocery store	12.0	11.5	8.3	4.1	...	8.6	...	1.5	2.0	1.2	...	...
2. Some at other sources	0.6	3.9	...	8.2	...	3.9	...	2.1	...	...	...	...
None delivered	59.1	50.1	34.4	16.3	40.0	38.3	75.6	62.5	79.0	80.1	88.6	84.8
1. All at retail grocery store	58.5	45.6	33.3	10.2	30.0	30.5	74.8	57.4	77.8	76.9	85.9	82.5
2. All or part at other sources	0.6	4.5	1.1	6.1	10.0	7.8	0.8	5.1	1.2	3.2	2.7	2.3

<sup>1</sup> 1 additional household bought this product from unreported sources.

<sup>2</sup> 2 additional households bought this product from unreported sources.

## DAIRY

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Of the families who had all their homogenized milk delivered almost one fourth in Oakland and about one sixth in Los Angeles used four quarts or less in the week studied. From 10% to 11% of the families used from over four to six quarts while from 19% to 22% used from over six to eight quarts. About 19% used from over eight to 12 quarts. About 18% used from over 12 quarts to 16 quarts and from 11% to 12% used over 16 quarts during the week.

From one half to more than three fourths of the half and half used was consumed by families who bought it at retail stores only and from 22% to 40% was used by families who had it all delivered. Only a small amount was used by families who bought from both sources. About three fourths of the cottage cheese and from 78% to 84% of the butter was used by families buying only at retail grocery stores and about 20% of the cottage cheese and from 13% to 18% of the butter was used by those families having it delivered.

As size of income increased the proportions of families who had all their homogenized milk delivered tended to increase and the proportion who had none delivered tended to decrease. This tendency was more pronounced in Oakland than in Los Angeles.

Over 75% of the families studied in Oakland and 58% of those in Los Angeles with incomes under \$2,000 bought all their homogenized milk at retail grocery stores. Of those with incomes from \$3,000 to \$4,000—57% in Oakland and 49% in Los Angeles—bought their milk

at this source. Of those with incomes of \$6,000 or more, 49% of the Oakland families and 38% of the Los Angeles families bought all their homogenized milk at grocery stores.

Only 16% of the Oakland families and 38% of those in Los Angeles with incomes under \$2,000 had all their homogenized milk delivered. Of those with incomes from \$3,000 to \$4,000, 28% in Oakland and 32% in Los Angeles had it all delivered. Of those with \$6,000 or more, 40% in Oakland and 42% in Los Angeles bought their homogenized milk in this manner.

The proportions of families with two or three adults and no children under 16 years of age who bought all their homogenized milk at grocery stores were larger in both Oakland and Los Angeles than the proportions of the families with two adults and with one or more children under 16 years who bought all their homogenized milk at grocery stores.

Of the families with two adults only, from 63% to 73% bought all their homogenized milk at retail grocery stores. Of those with three adults only, from 48% to 60% obtained all this milk at this source. On the other hand only from 26% to 46% of the families with two adults and with from one to three children bought their homogenized milk at the grocery stores.

Conversely the proportions of the families with adults only who had all their milk delivered were smaller than the proportions of families with two adults and one or more children who had all their milk delivered. These practices were undoubtedly related to the quantities used by the families since the families with children on the average used larger quan-

tities of homogenized milk than those with no children under 16 years.

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## STEM PITTING

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areas than in others and may result in an asymmetrical shape of the stock.

Of 19 trees of Valencia on Morton citrange examined in the spring of 1952 in one orchard in the Azusa area, 16 showed stem pitting symptoms on the stock. The condition of these trees was not obvious prior to 1952 although the trees were frequently observed and trunk diameters measured annually.

The degree of stem pitting has advanced since it was first observed. The health and vigor of the top is expected to decrease as affected trees become older.

Examination of some young navel orange trees on Morton citrange stock in a nearby orchard also revealed the presence of stem pitting on a large percentage of the stocks. Seven-year-old trees of navels and Valencias on Morton citrange roots planted in 1945 at Riverside do not show any pitting symptoms. Twenty-four-year-old navel orange trees on Morton citrange at Riverside also appear healthy. Quick decline did not appear in Riverside County until 1949, and in 1952 is still confined to a few widely scattered trees. It is likely that the disorder is caused by the quick decline virus rather than by any incompatibility or physiological factor. In the Azusa area, adjacent seven-year-old trees of Valencia oranges on Troyer citrange stock do not appear to be affected. Troyer citrange stock is typically more fluted than that of Morton.

These findings show that the grower is faced not only with typical quick-decline symptoms in his orchard but also with the stem pitting aspect. Not the scion alone nor the stock alone, but their combination determines the susceptibility of the host plant to the disease. Thus Valencia orange on Rough lemon root is tolerant to the virus but grapefruit on Rough lemon in South Africa and Brazil is severely affected by stem pitting.

The combinations on which stem pitting may occur in California are not yet known. Many combinations are now under trial to determine their susceptibility to quick decline. They are being observed closely for the effect of the presence of the virus and for the appearance of stem pitting. The grower should exercise extreme care in planting only known quick-decline tolerant combinations in order to avoid tree distress in later years.

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**Average Quantities of Six Major Deliverable Dairy Products Secured per Household Purchasing at Different Sources.**

Source	Homogenized milk		Plain whole milk		Vitamin milk		Half and half		Cottage cheese		Butter	
	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.	Oak.	L.A.
<b>Number of house-holds purchasing . . . . .</b>	318	331 <sup>1</sup>	96	49	10	128	119	195 <sup>1</sup>	252	347 <sup>2</sup>	220	269 <sup>2</sup>
	Qts.	Qts.	Qts.	Qts.	Qts.	Qts.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
<b>All sources . . . . .</b>	9.57	10.19	8.15	8.78	8.20	10.56	2.03	2.29	1.19	1.37	1.03	1.04
<b>All delivered 9.72</b>	9.86	7.55	8.62	9.17	9.47	1.87	2.72	1.26	1.37	1.18	1.20	
<b>Some delivered and . . . . .</b>	12.39	13.95	10.09	10.82	...	14.20	...	3.70	2.32	2.56	...	...
<b>1. Some at retail grocery store . . . . .</b>	12.59	14.68	10.09	5.42	...	13.04	...	4.88	2.32	2.56	...	...
<b>2. Some at other sources . . . . .</b>	8.50	11.80	...	13.52	...	16.76	...	2.81	...	...	...	...
<b>None delivered . . . . .</b>	8.90	9.26	8.67	7.95	6.75	10.77	2.09	1.98	1.14	1.35	1.01	1.01
<b>1. All at retail grocery store . . . . .</b>	8.89	8.88	8.82	3.54	6.67	8.91	2.09	1.96	1.13	1.36	1.00	0.99
<b>2. All or part at other sources . . . . .</b>	10.50	13.09	4.00	15.31	7.00	18.01	2.14	2.16	1.67	1.14	1.17	1.75

<sup>1</sup> 1 additional household bought this product from unreported sources.

<sup>2</sup> 2 additional households bought this product from unreported sources.