

# Citrus Consumption: Our Habits Continue to Change

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American consumers have greatly reduced their consumption of *fresh* fruits since the peak levels of the mid-forties. This is true for both citrus and noncitrus fresh fruits (Figure 1). Per capita consumption of all fresh fruit in 1973 was only 53 percent of the post-war peak of 140 pounds in 1947.<sup>1</sup>

In general, per capita consumption of fresh citrus has fallen more rapidly than consumption of fresh noncitrus fruits. Comparison of the three year averages for 1945-47 with the 1971-73 averages indicates that fresh citrus consumption declined by 32 pounds per person whereas noncitrus fresh fruit consumption fell by 27 pounds.

Within the category of fresh citrus, changes in orange consumption have been the most dramatic (Figure 2). Consumption of fresh oranges fell from an average of 45.2 pounds per person in 1944 to 14.6 pounds in 1973. This decline was most pronounced during the late forties and the fifties.

Per capita consumption of grapefruit, lemons and tangerines has also declined during the post World War II period. However, these changes were much smaller than for fresh oranges.

The reduction in fresh orange consumption has been associated with equally important but opposite changes in the per capita consumption of *processed* oranges, particularly frozen concentrated orange juice

Table 1. Per Capita Consumption of Canned, Chilled and Frozen Citrus Juices, U.S., 1945-1972.<sup>a</sup>

Years	Canned			Chilled <sup>c</sup>		Frozen	
	Orange	Grapefruit	Total Citrus <sup>b</sup>	Orange	Grapefruit	Orange	Other Citrus <sup>d</sup>
..... pounds per person .....							
<i>Average:</i>							
1945-49	4.0	3.6	11.0	N.A.	N.A.	.9 <sup>e</sup>	.01 <sup>e</sup>
1950-54	3.4	2.2	8.5	N.A.	N.A.	9.3	.8
1955-59	2.5	1.9	6.7	1.4	.05	13.9	1.7
1960-64	1.7	1.4	5.2	1.7	.05	14.3	1.5
1965	1.2	1.4	4.0	1.9	.1	14.1	1.3
1966	1.5	1.7	4.7	3.0	.1	13.5	1.2
1967	1.6	2.3	5.5	4.2	.2	19.5	1.6
1968	1.2	2.2	5.2	4.0	.2	17.0	1.1
1969	1.3	2.9	7.2	3.9	.3	17.2	1.1
1970	1.8	3.0	6.6	4.4	.3	20.6	1.3
1971	1.6	3.3	7.5	4.4	.4	20.3	1.5
1972	1.5	3.3	8.4	4.6	.6	19.8	1.7
1973 <sup>f</sup>	1.7	3.5	8.0	4.7	.6	23.9	1.8

<sup>a</sup> Single strength equivalent basis, rather than product weight.

<sup>b</sup> Includes blended orange and grapefruit, lemon, lime, and tangerine juices, and citrus concentrates.

<sup>c</sup> Produced commercially from fresh fruit in Florida; does not include reconstituted frozen juice or fresh juice produced for local sale.

<sup>d</sup> Includes orange juice used in blends.

<sup>e</sup> Four year average.

<sup>f</sup> Preliminary.

(Figure 3 and Table 1). The consumption of frozen concentrated orange juice has risen from negligible levels in the mid-forties to an average of about 21 pounds per person in recent years (equivalent to about 13, six ounce cans of frozen juice per year). This increase was most evident during the late forties and the fifties and represents the American consumers' rapid acceptance and substitution of frozen juice for fresh oranges. Convenience, year-round availability and uniform quality were factors that contributed to this substitution.

To some extent consumers have also substituted frozen orange juice for the canned, single-strength product. Consumption of canned orange juice reached a maximum of five pounds per person in 1948 (equivalent to about one and one-half standard 46 fl. oz. juice cans); since that time it has declined to the current level of approximately one and one-half pounds per person (equivalent to about one-half of a standard can).

The introduction of chilled orange juice by the Florida citrus industry has also been favorably received by

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<sup>1</sup> Data in text, tables and graphs taken from: Stephen J. Hiemstra, *FOOD CONSUMPTION, PRICES AND EXPENDITURES*, Agric. Econ. Report N. 138, U.S. Department of Agriculture, July 1968, and appropriate supplemental issues.

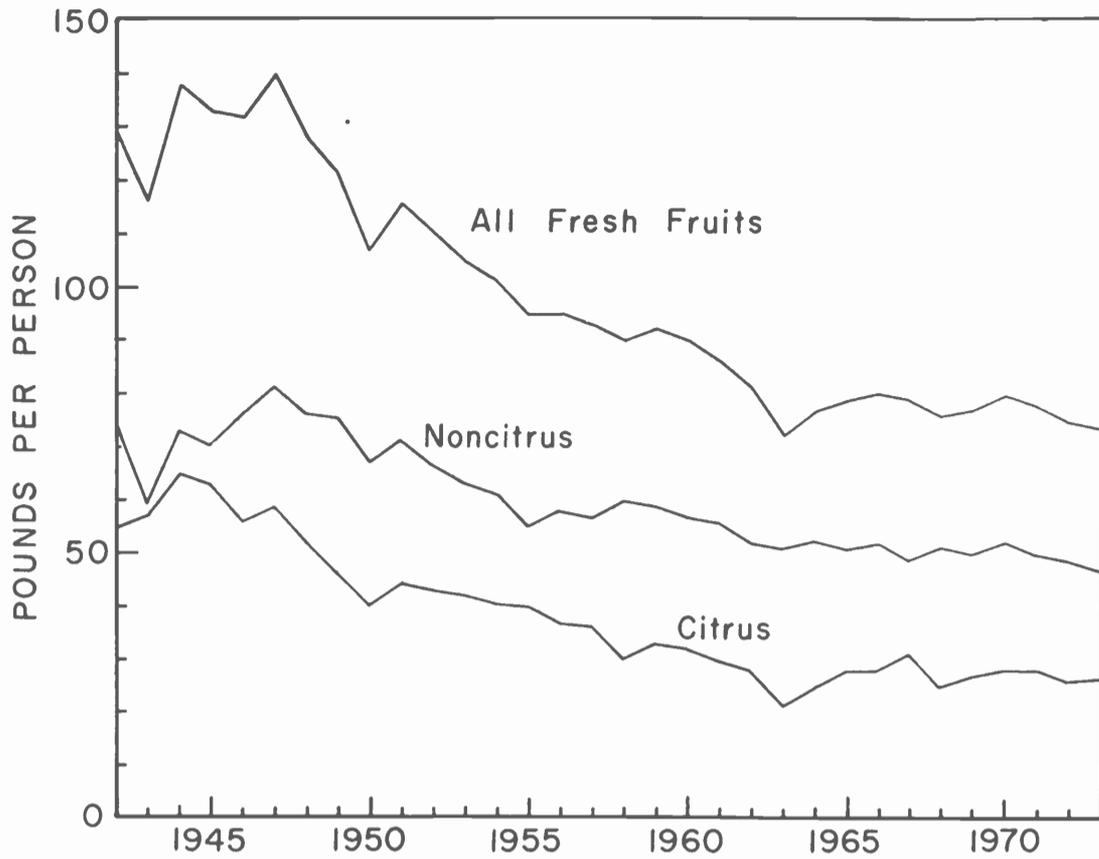


Figure 1. Per Capita Consumption of Fresh Citrus and Noncitrus Fruits, U.S., 1942-1973.

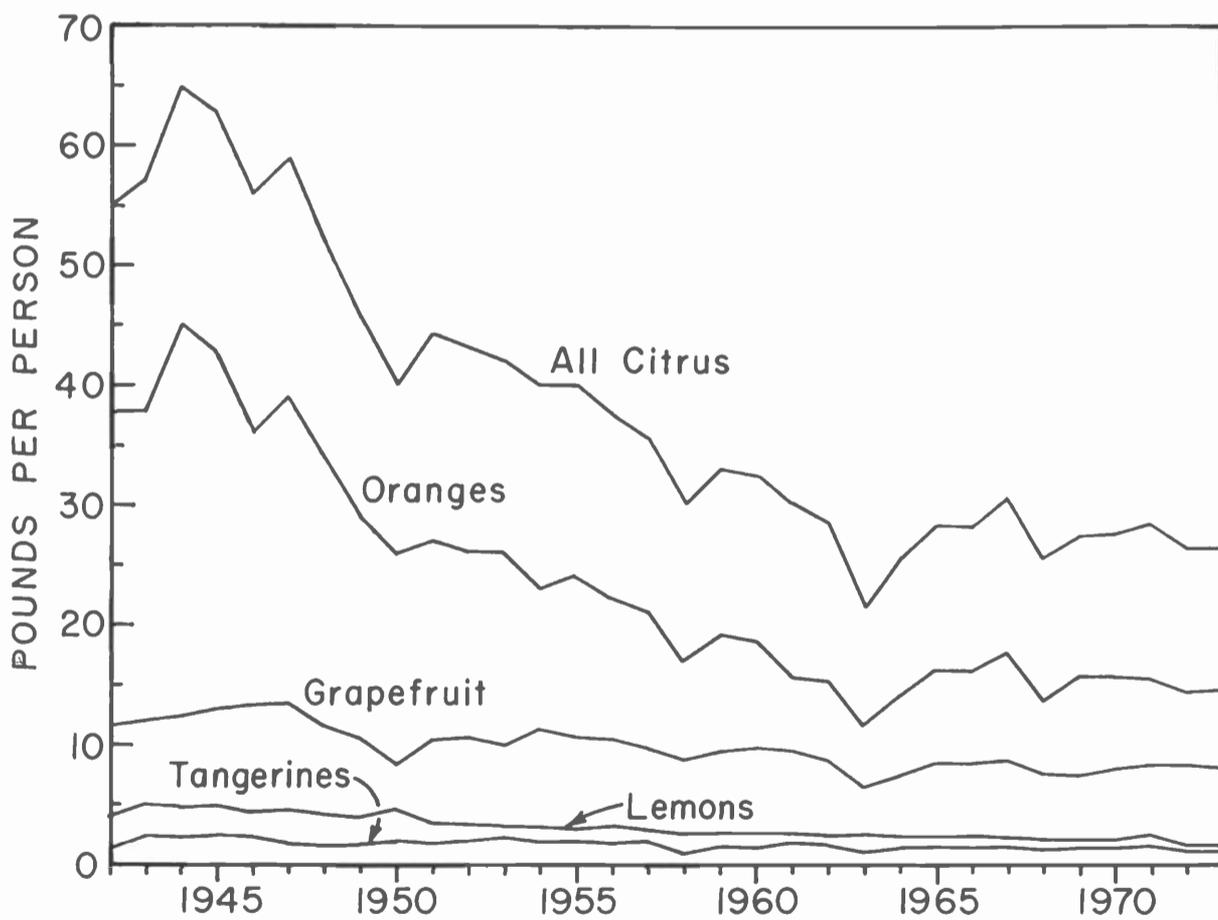


Figure 2. Per Capita Consumption of Fresh Citrus Fruits, U.S., 1942-1973.

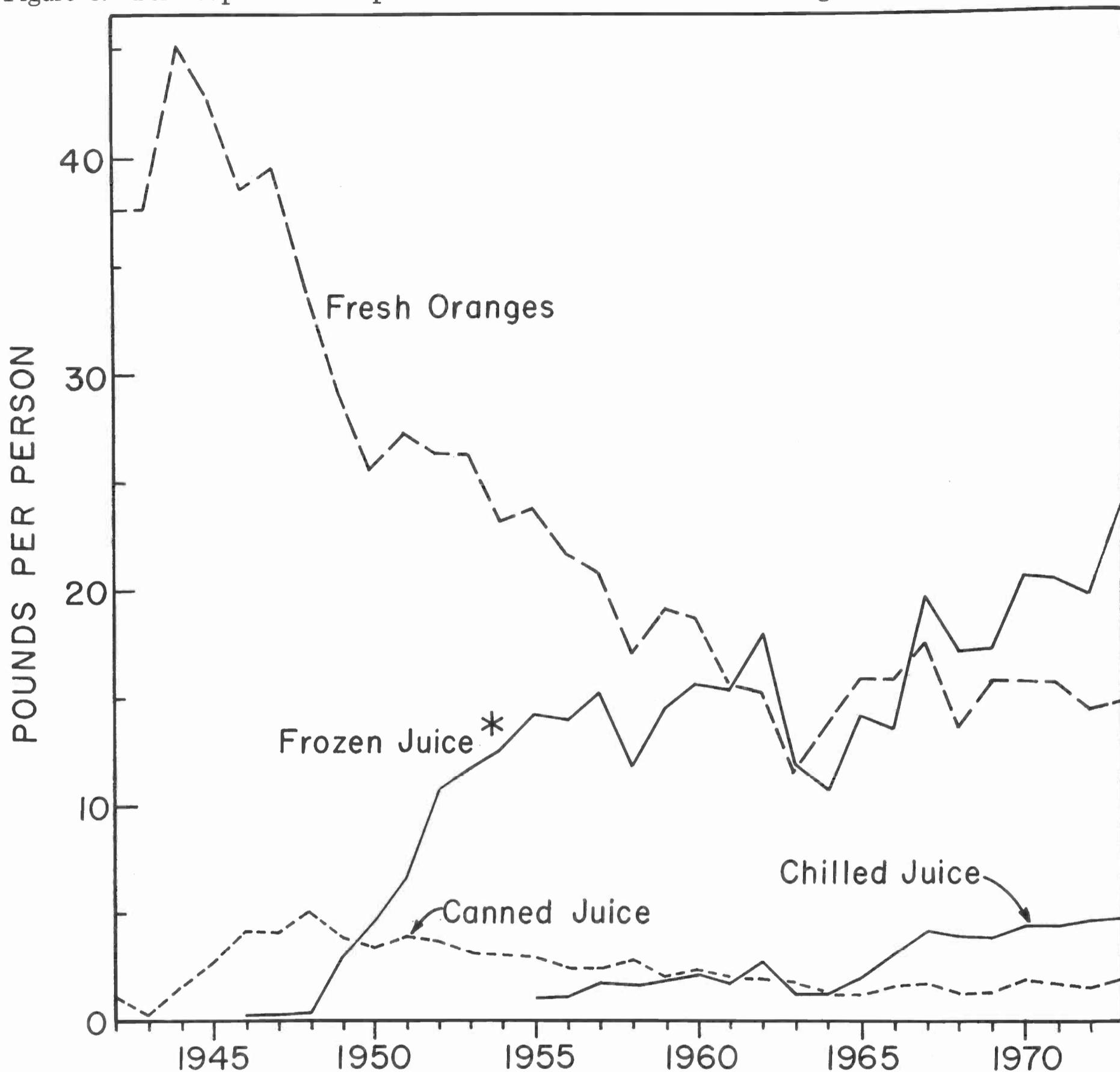
the American consumer. Consumption of this product has risen from one pound per person in 1935, the first year for which data are available, to about four and one-half pounds (approximately one-half gallon) in recent years.

The consumption of canned and

chilled grapefruit juice and other frozen citrus juices is minor (Table 1). Nevertheless, it is interesting to note that the per capita consumption of canned grapefruit juice has been increasing since the mid-sixties and is now approaching the higher levels of the forties.

These changes in consumption and utilization have important implications for the Arizona-California citrus industry, particularly that part involving the production and distribution of oranges. This production area has traditionally been a source of quality oranges for the fresh market.

Figure 3. Per Capita Consumption of Fresh and Processed Oranges, U.S., 1942-1973.



\* Single-strength equivalent

However, in recent years as total production increased, the proportion of the Navel and Valencia orange crop entering the processed market increased markedly. During the last decade, sales of Valencia oranges for processing in Arizona and California increased from 33 to 50 percent of the total crop; comparable figures for Navels are 10 and 26 percent. The primary results of these changes are

more direct competition with the Florida industry and a reduction in average returns for western orange producers.

The changing lemon situation is also important for Arizona producers. The steady decline in per capita consumption of fresh lemons has occurred during a period of rapid expansion of lemon acreage and production in Ari-

zona. Because of large increases in exports and a fairly strong products market, particularly for oils and essences, lemon prices have continued to rise. The sensitivity of the export market to external political and economic conditions makes long run forecasting extremely difficult. However, expected increases in production will probably lead to downward pressure on prices and grower returns.