

Deciduous Fruits

trends and prospects as influenced by population and national income studied

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Close to 50% of the nation's total commercial combined tonnage of apples, apricots, cherries, grapes, freestone peaches, pears, and plums have been grown in California in the postwar years of 1949-1953. These fruits include all the major deciduous fruits except clingstone peaches—primarily canned—and prunes—primarily dried.

California's increased production of 1949-1953 over 1934-1938 amounted to 27% while national production increased less than 7%. The expanded production in California came from a bearing acreage which had dropped by almost 12%, but yields were up almost 44%.

Fresh sales of California-produced fruits amounted to about 28% of the nation's total sales as an annual average for 1934-1938, but averaged near 25% for 1949-1953. Yet this decline in the relative position of the fresh market was even proportionately greater for the nation at large than for California. From the national view, 56% of the total deciduous sales went to the fresh market during 1934-1938 compared with 47% for 1949-1953.

The seven subject fruits compete with others—to some extent—in fresh use and also with processed fruits. The outcome of this competition for the consumer's attention involves many influences, some of which are peculiar to particular fruits and some of which are common to all of them.

Among the national influences which affect all of the fruits and which have substantially changed during the past 20 years are population and income. The rapidly expanding population—with an expanded national income—has resulted in a drastically changed market situation as measured by numbers of potential consumers with favorable disposable incomes.

Per-capita total use of fresh and processed fruits—including grapes in all forms—has remained about constant the past two decades. But the per-capita disappearance of the seven deciduous fruits through fresh use has decreased by more than 20%, while per-capita disappearance through products—canned, dried, juice, and so forth—has increased by 37%. This relative decrease in fresh use per capita, or relative increase in prod-

ucts use per capita, occurred during a period when national population expanded 18% and disposable money income increased 254%.

Two important factors affecting the decrease in fresh use and increased use of processed deciduous fruits are the relative prices and consumer tastes and preferences.

The 1934-1938 average price received by California growers of the seven fruits from the fresh market was \$35.62 per ton compared with \$113.52 per ton as the average for 1949-1953, an increase of about 220%; the processed-use average price for 1934-1938 was \$27.62 per ton compared with \$69.48 for 1949-1953, an increase of about 150%.

One reason why consumers have shifted from fresh to processed deciduous fruits may be that—in terms of relative prices—the processed fruits have become more attractive.

Aside from the relative prices, there are the questions of consumer tastes and preferences which are not static.

Merchandising, standardization, packaging, and distribution of deciduous fresh fruits have changed in recent years, but that change has been moderate when compared with marketing developments for the processed products.

Inferences from bits of evidence suggest that one of the reasons per-capita use of deciduous fruits has been shifting is that consumers at large are increasing their use preference for the processed and decreasing their use preference for the fresh. Yet the current situation is not inevitable and may be changed. Such a reversal, however, would require organized, persistent, and adequate efforts on the part of deciduous fresh fruit industries.

In the long-range view, one of the most important variables influencing demand for fresh fruit is how fast will the population grow. Prior to 1940, when birth and death rates were fairly stable but slowly declining, estimating the population was deemed to be primarily a matter of trend projection. But the unexpected upturn in births after 1940 raised doubts about future population trends.

Unless the concept of the completed family has undergone a radical upward revision, the number of births will be lowered from now on—until around

1965—because the current generation of mothers comes from the low births of the 1930s. If the concept of a completed family has been revised upward, the number of births from now on will remain high as in recent years and even increase.

The fact that total population can be expected to increase is important in terms of potential consumers of deciduous fresh fruit. Whether the potential consumers will be effective demanders will depend upon the level of their disposable income, relative prices of other commodities, and their taste and use preferences.

As to prices, the fresh-use industries may be faced with even greater competition from the products industries. So far, the technological developments leading to cost reductions have been more pronounced in the processed-use than in the fresh-use industries.

Recent technological changes—or their absence—may have had considerable influence on consumer preferences. In the processed field, important changes are occurring which bear upon the demand for fresh fruits.

Cold pasteurization and sterilization of foods by irradiation on a commercially feasible basis may be near at hand. Reports indicate that mild doses of irradiation adequate to pasteurize will increase the keeping qualities of various foods—including fruits—without affecting quality, taste, or flavor. If, or more likely when, a commercially feasible irradiation process for foods is developed, there could well be a revolution in the food canning and processing industry.

It appears clear that the fresh-use fruit industries can expect more intensive competition from the processed fruit industries, with such competition being in terms of product characteristics as well as price.

It may be that the fresh-use industries can also take advantage of such technological developments as cold pasteurization and radiological sterilization. Rationalization of packing house locations and layout with cost-reducing methods of operation; the harvesting of tree-ripened fruits at their optimum flavor and eating stages—with those fruits being irradiated at the peak of their flavor—could result in fresh shipping at optimum quality and attractiveness to the potential consumers. The essential point is that fresh-use fruit industries can also take advantage of technological advances so as to improve or at least maintain their competitive position.

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