

**Proceedings of the First International Tropical Fruit Short Course: The Avocado.**

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## **JAPAN AS A POTENTIAL MARKET FOR AVOCADOS**

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### **U.S. Avocado Production**

The volume of fresh avocados produced in the U.S. was not very large until the 1960's (11). Annual total fresh volume of avocados sold in the United States, including imports, was about 7,000 tons in 1930-31. In the 1950's, annual total fresh volume sold in the U.S. averaged about 34,000-36,000 tons. In the 1960's, U.S. avocado production averaged about 52,000 tons (8, 9).

However, during the current year, California is expected to have a record crop of 114,000-125,000 tons, while Florida is also expected to have a record year of production of 27,000-36,000 tons, based on current forecasts. This will result in a total of 141,000-161,000 tons of fresh avocado production.

Total avocado production in the U.S. in this decade, barring some unusual weather catastrophe, will surely triple the total volume sold in the U.S. in the 1960's and before the end of this decade, it's quite likely to quadruple the total volume that was sold in the U.S. in the 1960's. The Florida and California industries are growing (3). According to this report, as of January 1, 1976, 29% of Florida's hectareage was less than 5 years of age. The Florida Crop and Livestock Reporting Service (4) reports that through 1975, Florida has 3,200 ha or 796,000 trees. Using very conservative assumptions, this number of trees could easily produce 60,000 tons.

California, as of January, 1976, has 10,400 ha of bearing trees and 5,250 ha of nonbearing trees, resulting in a total of 15,650 ha (8). Significantly, more and more of this hectareage (currently 50%) is being shifted to the more consistently producing 'Hass' variety.

More significantly, perhaps, the Florida industry is receiving more and more interest from prospective producers and investors. Plantings in more northerly counties, especially in the Collier County area, are going in where land is cheaper and risks a little higher. Florida's avocado industry is likely to grow if these areas prove to be satisfactory and within 10 years, could well be larger than California's, especially since Florida can produce more per hectare.

### **U.S. as an Avocado Market**

According to unpublished reports, approximately 5% of consumers ate avocados during the early 1960's. Since that time, due to California's aggressive avocado promotions, this figure has been raised to 25-30%. Experts in the field of avocado marketing seem to believe that it will be difficult to get a higher percentage of consumers using avocados

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since it seems to be a fruit that people either like or dislike. Any dramatic increases in the current consumption rate of avocados is more likely to come from getting those who already use avocados to use more. Even so, it is doubtful that the increased production in the U.S. can be consumed without dramatic reductions in prices, and thereby, returns to growers. Already, according to estimated figures on exports and documented figures on imports furnished by the United States International Tariff Commission, the U.S. has been a net exporter of fresh avocados by a significant margin for each year during the period 1969-75, and these figures do not include exports that are unreported.

### **Europe as an Avocado Market**

Although figures available to this writer refutes Perry and Perry (7), officials of the Foreign Agriculture Service, U.S.D.A., report that the European market is completely dominated by Israel. Rock and Platt (8, 9) report that Israel exports more than 70% of her production to Europe. Israel's position in the European market has been attained by a cooperative arrangement between their industry and the Israeli government in which they have aggressively advertised their fruit in European markets.

Supply in the U.S. and European markets will surely not keep up with demand unless dramatic changes or a devastating natural disaster occurs. Current and expected U.S. domestic production is sure to be more than adequate to satisfy demand. As a matter of fact, prices are sure to be lower for the 1976-77 season. Already, California has been gearing the advertising and promotional program to sell the upcoming large crop at a much lower return per kg to the grower than during the preceding year.

It becomes natural that avocado-producing areas will look for other lucrative or high potential markets for their fruits. If not the U.S. or European market, the next best alternative market for fresh avocados is the Japanese market. The remainder of this paper will be devoted to showing why Japan may have potential as a market for fresh avocados.

### **Fruit Production in Japan**

Fruit culture in Japan was once regarded as 1 of the high growth industries (5). However, labor shortages and high wages have resulted in decreasing hectareage devoted to fresh fruit production and, during the decade 1971-81, demand for fresh fruit is expected to exceed supply.

The growing demand in fresh fruit consumption in Japan, coupled with the decrease in Japanese production, makes it likely that exports of fresh fruit to Japan will grow.

A survey of Far East markets, performed in 1974 by the Foreign Agricultural Service, U.S.D.A., and the California Advisory Board, has this to say about the Japanese people: "They are prodigious fruit eaters. Status means everything to the Japanese—much more so than in this country. The traditional gift-giving provides a tremendous outlet for status fruits". To show that they are prodigious fruit eaters, we only need to look at the growth in exports of fresh fruits to Japan, as revealed in Tables 1 and 2. The growth in these fresh fruits has been remarkable, but the growth in some of them seems to have

leveled off or diminished while the growth in papaya, melon, mango and kiwi is still accelerating. These 4, according to the survey, are considered to be somewhat similar to avocados in marketing experience.

### **The Japanese Consumer**

The Japanese consumer is especially elastic, adaptable and receptive according to Ballon (5). Murata (6) indicates that the young Japanese are very receptive to the consumption-oriented life of modern western society. Also, Ballon (5) reports that the Japanese, especially post-World War II, prefer western or modern dishes and that while traditional Japanese foods are generally plain in taste, western or Chinese dishes are generally thicker in taste, or *aburakkoi* (literally: oily or greasy). The Japanese consumer also feels that western diets are more nutritious and even feed their children western diets. Furthermore, the Japanese consumer pays a high price for changes in diet. The Japanese are also reported to prefer fresh goods over canned or frozen foods (2).

A Japanese consumer may spend 33% of disposable income on food. This compares to 16% in the U.S. However, the percentage spent on food is lowering as income rises. Caloric intake is rising and dependency upon fruits and vegetables for calories has risen from 113 per day to 156, while dependence on fats and oils for caloric intake has risen from 105 to 258 calories per day (2).

The Japanese consumer is paying the equivalent of \$0.80/kg for lemons and \$1.14/kg for lettuce, according to 1974 figures. The value of avocados on a comparable basis at that time was an average of \$2.75/kg delivered (2).

### **The Japanese Economy**

Japan is a small country about the size of California. It ranks sixth in world population with about 114 million people. Due to its small size, it is fourth in the world in population density.

Due to the rapid post-war "Americanization", Japan has come to look more like America. There has been a massive redistribution of income since the war, and the number of wage earners has increased dramatically. Yoshino (12) reported that there was an income gain of 98,000 yen per household between 1963 and 1969 (\$1.00 equals approximately 360 yen).

More discretionary income has been available to the Japanese consumer as incomes have risen (6). This has resulted in increasing amounts spent for social, recreational and educational activities (12). Expenditures for such activities nearly doubled between 1966 and 1971 and are increasing at a rate of 20% per year.

The increasing expenditures for educational activities has had some beneficial effects, as Japan is reported to have attained a 98% literacy rate (6). The Japanese are considered to be voracious readers and are reported to have 100 newspapers with a combined daily circulation of 37 million.

The Japanese middle class, like Americans, is the target for high pressure persuasion

of the consumer to become quite sensitive to product characteristics other than price. media. This, coupled with rising levels of discretionary income, has enabled the Japanese consumer to become quite sensitive to product characteristics other than price.

**Table 1. U.S. exports of fresh fruit to Japan. <sup>z</sup>**

Commodity	Quantity (tons)					
	1970	1971	1972	1973	1974	1975
Grapes	7	1,045	170	672	707	1,374
Grapefruit	2,117	12,966	96,633	99,521	141,592	143,376
Lemons	52,240	62,964	78,036	94,037	91,006	76,115
Oranges	4,186	6,441	15,942	18,204	18,252	22,322
Strawberries	10	9	21	152	347	362
Tropical fruit	410	248	409	1,503	1,784	1,317

<sup>z</sup> Source: FAS, USDA (2)

**Table 2. Imports of fresh fruit into Japan. <sup>z</sup>**

Commodity	Quantity (tons)				
	1969	1970	1971	1972	1973
Pineapple	—	—	41,576	710,988	554,335
Papaya	46	75	140	225	798
Melons	10	'	148	200	599
Mango	5	12	15	<::	225
Kiwi	1	1	5	12	100

<sup>z</sup> Source: FAS, USDA (2)

## The Japanese Distribution System

By most western standards, the Japanese distribution system and marketing channels are unusually complex. At the same time, they are very difficult to bypass and any attempts to do so can be quite costly. This is due to the "many hands" in the distributive trade. Japan has approximately 225,000 wholesalers and the marketing of consumer goods, in almost every case, passes through at least 2 layers of wholesalers. Some U.S. firms have tried to reach retailers through single layers of wholesalers in the past, but it has been slow and some who have tried it have found the cost to be higher. It seems that this complex distribution system is not subject to easy transformation (1).

There are apparently several reasons for multiple-levels in the distribution system and why it is not so easily transformed. The first reason is probably due to the small amount of land area, the large number of people and their distribution and size of the Japanese homes as a result of this scarcity of space. Most homes are very small and, as a result, there is no place to store a supply of food. Often, the Japanese housewife makes 2 shopping trips daily to the grocery store. Moreover, auto ownership in Japan is still low, as there are only 15 cars per 1,000 population. This compares to 360 cars per 1,000 population in the U.S. Only 1 store in 10 provides parking for its customers. Thus, the consumer shopping pattern works against the development of large supermarkets

similar to the ones in the U.S. and other countries.

There must be a large number of stores to accommodate these shopping patterns. This is another factor which requires a large number of wholesalers which contributes so much to the complexity of the Japanese distribution system. For example, there are about 650,000 retail food stores in Japan, compared to 300,000 for the U.S. Japanese supermarkets are usually less than 60 m in area, compared to 1,850 m for the U.S. Quite often the shops are so small that merchandise is displayed on the sidewalks and the isles are crammed with merchandise at night when the shop is closed. Such shops probably place orders by the package, bottle or kilogram, not by the case or carload, and the inventory is all on display.

Another factor which contributes to Japan's complicated distribution system is a problem of financing and capitalization. Japan seems to be a capital-short economy. For this reason, many of the retailers depend on their wholesalers to finance them. Most of Tokyo's supermarkets, for example, are capitalized at less than \$15,000, compared to \$500,000 for the average U.S. supermarket. In spite of the fact that Tokyo is considered to be a modern city, most of its grocery stores are one-stop operations, housed in single-story buildings.

Transportation also contributes to Japan's complicated distribution system and prevents it from being easily transformed into a simpler system. Abegglen (1) reports that less than 4% of all Japanese roads are paved. The streets are narrow and the country roads are considered the worst-surfaced and worst-maintained in the entire industrialized world. This fact, coupled with the hordes of small vehicles making small drops at a great number of small stores, keeps transportation costs high.

**Table 3. Trend in the number of Japanese supermarkets, 1959-1963. <sup>z</sup>**

Year	No. of stores
1959	70
1960	129
1961	190
1962	380
1963	556

<sup>z</sup> Source: Self-Service Store Assoc. of Japan.

Nevertheless, there has been some progress made in the direction of changing the distribution system, with these changes trending toward larger supermarkets. While up-to-date figures were not available, the figures in Table 3 and 4 indicate a trend toward an increasing number of supermarkets and self-service stores that began developing back in the 1950's. The scarcity and high cost of labor stimulated the trend toward larger stores, whereas the scarcity and high cost of land in urban centers have tended to slow the trend. It has been predicted (1) that improvement in goods handling, a wider use of automobiles and freezers and great expansion in the number of suburban housing projects are sure to produce greater advances in the direction of self-service, multi-store

operations during the coming 5-10 years. This should result in a greater employment of the techniques of mass marketing. However, even though the trend is there, it has been recommended that westerners should not base their sales objectives on these trends.

**Table 4. Trend in the number of self service stores in Japan, 1959-1962. <sup>z</sup>**

Year	No. of stores
1953	1
1954	3
1955	40
1956	129
1957	283
1958	595
1959	1,036
1960	1,465
1961	2,055
1962	2,846

<sup>z</sup> Source: Self-Service Store Assoc. of Japan.

## Summary

It has been shown that U.S. production of avocados will be more than adequate to meet U.S. demand. Israel appears to be satisfying the European demand. Thus, Japan, with its voracious appetite for fresh fruits, seems to be the next logical market for avocado fruit.

There has been a decrease in domestic production of fresh fruit in Japan. There have been dramatic increases in U.S. exports of fresh fruits to Japan and especially there has been a dramatic growth in the level of imports of papaya, melon, mango and kiwi. These fruits are considered similar to the avocado with respect to marketing experience.

It has also been reported that status means very much to Japanese and the tradition of gift-giving by the Japanese provides a tremendous outlet for status fruits. Probably no fruit offers more status than the avocado.

It is also reported that the Japanese are elastic and adaptable in their dietary habits and, in many cases, prefer western diets. They seem to have the belief that western diets are more nutritious and tastier than Japanese diets and so feed western diets to their children. Japanese believe that western diets have a thicker taste and are more oily or greasy. If this be the case, avocado should do well in Japan, as it is an oily fruit.

Another positive factor for the potential of Japan as a market for fresh avocados is the fact that the Japanese prefer fresh foods to frozen or canned foods. Furthermore, caloric intake is rising and the Japanese dependence on fruits and vegetables for this caloric intake is rising. Their dependence on fats and oils for caloric intake has also increased and the avocado contains both fat and oil.

The aspect of value might also come into play since the Japanese were reported to be

paying as high as \$1.14/kg for lettuce which is not considered especially nutritious. The avocado should mean much more nutritionally.

The avocado fruit is reported to be strange to the Japanese and they need to be educated on its characteristics and uses. This problem could be diminished, however, since Japan is considered to have a very well-developed mass media. With the large daily circulation of newspapers combined with the reading voracity of the Japanese, it is likely that promotion and education could be done with relative ease.

The Far East market survey reports that Japan has a relatively good distributive trade—some with adequate refrigeration. It also has an excellent hotel and restaurant trade, as well as good tourist trade. Currently, there are no tariff barriers and there is an existing quarantine against avocados from Malaysia and the Philippines. More importantly, there is no evidence of strong objections to avocados in the Japanese diet.

A complex distribution system results in many hands in the distributive trade and a lack of large-chain retail structures. Furthermore, the Japanese require that fruit be fumigated. There is a lack of extensive refrigeration in the distributive system. There does appear to be a trend away from the complex system that has prevailed in Japan for such a long time toward a large-chain retail structure.

It seems safe to say that Japan offers unusual potential for marketing fresh avocados. At the same time, success in its market will not be easy. With some minor improvements in transportation and distribution, coupled with a well-developed and effective promotional and educational program, there is no reason why a sizable market for the avocado fruit could not be developed in Japan.

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