

Determination of Consumer Awareness of the Uses of Avocados in the Fresno Metropolitan Area

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ABSTRACT

Consumers use avocados mainly in salads and dips and are not aware of the many other methods of preparing avocados. The study indicated a significant need to increase consumer awareness of avocado uses by directing promotional tips and ideas through newspapers and magazines. Avocados should be promoted as a versatile food.

Introduction

American avocado producers are confronted with a depressed market price, and have been since 1980. This is the result of supply and/or demand conditions.

On the supply side, the total production of avocados in 1984 is estimated to be approximately 600 million pounds. New bearing acreage has increased 215 percent from 1972 to 1982. California is the largest avocado supplier in the United States, contributing about 80 percent of the total supply and producing approximately 476 million pounds in 1981. (See Table 1) Florida is the second largest producer, contributing about 18 percent of the total supply, and producing approximately 61 million pounds in 1981.

Avocado imports make up a small portion of the U.S. supply, only about 2 percent; and there has been little variation in the quantity of avocados imported. The main factor limiting imports has been quarantine regulations which serve to protect the U.S. industry against the seed weevil and various fruit flies common in tropical countries in the western hemisphere.

The high production of avocados from 1980 to 1982 has lowered the market price of avocados severely from 74.8 cents per pound in 1979-1980 to 17.9 cents per pound in 1980-1981. The gross returns per acre to growers decreased from \$2,500 in the 1979-1980 season to \$1,416 in the 1980-1981 season.

Several factors affect the supply of avocados. The factors tending to increase supply are: (1) improved returns in recent years from avocado orchards; (2) tax motivation and the desire to hedge inflation; (3) changes in cultural methods and varieties, new irrigation systems and methods, better management, and larger commercial acreages. The factors which tend to limit supply are: (1) limited availability of orchard sites with water and suitable terrain, soil, and climatic conditions for successful avocado

production, together with the loss of suitable land to urbanization; (2) the rising cost of developing and operating properties; and (3) the loss of existing avocado acreage because of problems from root rot fungus.

On the demand side, consumers have increased their consumption of avocados by only 1.9 pounds per capita per year. Factors affecting consumer demand of avocados include (1) the appeal of avocados as a food item; (2) the nutritional value of avocados; (3) the acceptability of avocados by the consumer from past experience with the product; (4) the price of competing products; (5) the amount of disposable income in the national economy.

It is expected that the supply of avocados will not vary in the next several years, and the size of the imports is not enough to have any impact on the domestic market. The solution to the problem could be through increasing the domestic demand for avocados.

TABLE 1. California Avocados: bearing acres, production, returns per pound, and returns per bearing acre, 1973-1983.

Year	Bearing Acres	Production (Million Lbs.)	Returns Per Lb.	Returns Per Bearing Acre
1972-73	16,611	139.9	.2728	1,947
1973-74	21,004	105.9	.3963	1,999
1974-75	23,840	208.7	.2373	2,078
1975-76	25,710	116.0	.5260	2,396
1976-77	29,041	239.1	.2978	2,452
1977-78	37,790	213.4	.3733	2,109
1978-79	39,800	246.2	.3467	2,145
1979-80	44,400	148.4	.7479	2,500
1980-81	60,000	475.5	.1787	1,416
1981-82	67,000	312.6	.3447	1,608
1982-83	72,000	402.8	.2299	1,286

Source: California Avocado Commission

Objective

The objective of this research was to determine consumer awareness of the various uses for avocados and to make recommendation on when, how, and where the avocado industry should emphasize marketing its avocados.

Methodology

In order to achieve the objective, a random sample survey of households in the Fresno metropolitan area was used. Phone numbers were selected randomly out of the Fresno telephone directory.

To achieve an accurate sample, we collected 250 multiple choice surveys from the city of Fresno. The survey consisted of 21 questions. The data were then computerized, cross tabulated, and frequency tables were constructed to examine consumer

awareness and preferences of avocado uses as well as demographical characteristics.

The following is a list of topics that were included in the questionnaire:

1. How frequently avocados are used and how many are bought.
2. Where avocados are purchased.
3. Consumer preferences for avocado varieties year 'round.
4. Reasons for not using or for using avocados less frequently.
5. Awareness of uses for avocados.
6. Avocado prices compared to other fruits.
7. Advertising media most likely to promote avocado consumption.
8. Income level.
9. Age.
10. Educational level.
11. Ethnic origin.
12. Sex.
13. Marital status.

After the survey was completed, the data were computerized using the Statistical Package for the Social Sciences system, and various conclusions were drawn. Information about avocado use, awareness, advertising awareness, and demographic characteristics of avocado consumers was used to develop a marketing plan to increase avocado usage.

Review of Literature

S.K. Lee and C.W. Coggins, in their article on "Avocado Taste Test, A Preliminary Study of Regional Differences," indicated that consumers in various regions of the country have various taste preferences. Avocado taste test marketing data should be obtained from areas already familiar with avocados. (Lee, 1982)

C.W. Coggins in another article, "Feasibility of Marketing Soft Avocado Fruit," reported on a study conducted at an Alpha Beta supermarket in Riverside, California, to determine consumer preference between unripe and ripe avocados. The result indicated twice as many ripe avocados were sold over hard, unripe ones. In conclusion, the inconvenience of having to wait for avocados to ripen may lessen consumers, willingness to purchase avocados. (Coggins, 1982)

Ralph M. Pinkerton's article on "Marketing the 1982-83 California Avocado Crop" showed today's society is basically a "Hass society," and growers should plan their marketing around the major variety. In conclusion, growers should plan their picking schedule depending on what the market will take. A stable flow of fruit will benefit the industry by not overburdening the spring market. Good coordination between grower and packer is essential to control a record supply crop. (Pinkerton, 1982)

Results and Analysis

Familiarity and Purchase of Avocados.

Of the consumers surveyed, only 56% use avocados. Consumers, while they may not be aware of avocado varieties, are aware of the different variety characteristics. Of the consumers surveyed, 56% preferred the smooth, green variety, Fuerte; 40% preferred the pebble-skin, dark variety, Hass; and 4% had no opinion.

Consumers purchase avocados most frequently at the grocery stores: 56%. Fruit stand purchases account for 21%, from farmers' markets for 12%, and direct from growers for 4%. Avocados should be promoted most at grocery stores. The use of various promotional tips and ideas will increase consumer awareness of the various uses.

Of the consumers that use avocados, 61% use them less than once a month, 12% use them once a week, 10% twice a week, and 17% three or more times a week.

Of the consumers that use avocados, 19% purchase avocados once a week, 39% once a month, 26% once every 2-3 months, 13% once every 4-12 months, and 4% less than once a year.

The number of avocados people buy when they shop for them are: 44%, 1-2; 48%, 3-4; 4%, 5-6; 3%, 7-8; and 1%, more than 8.

Income had a significant effect on the purchase of avocados. The percentage of purchases correlated with income show that avocados are used in 39% of households with yearly income of less than \$10,000, in 66% of households with income of \$10,000-20,000, in 62% of households with income of \$20,000-30,000, and in 54% of households with income of \$30,000-40,000.

Selling and market activities should be directed toward families with a yearly income level of \$10,000-30,000, which is a large percentage of the total population.

Ethnic characteristics had an effect on the consumption of avocados. The survey showed use of avocados by 66% of Mexican-Americans, by 65% of Caucasians, by 52% of Blacks, and by 37% of Orientals. Hispanics and Caucasians are the main users of avocados. Avocado demand should be stimulated through promotion to Hispanics and Caucasians. Demand needs to be created for Blacks and Orientals, to reach these lower-consuming groups.

Educational level also had a significant effect on the consumption of avocado. Consumers with higher educational levels used avocados the most, as indicated in the following use percentages: less than high school, 45%; high school, 53%; some college, 66%; college graduate, 64%.

Avocados should be promoted to consumers who have had some college education or are college graduates.

The marital status of the consumer had a significant effect on the use of avocados, also. The research signified that married couples consume more avocados than single persons: married, 68% consume avocados; single, 48% consume avocados.

There is also a significant relationship between family size and consumption of avocados. Larger families tend to use avocados more. In families of two members, 48%

use avocados; of three members, 58%; of four members, 77%; of five members, 67%.

Avocados should be promoted among married couples with two or more children in the family.

Reasons for Not Using Avocados

Most people who do not use avocado expressed no reason for not using them: 54%. When given, reasons for not purchasing avocados were as follows:

Too expensive	10%
No use for it	9%
Too green	7%
Diet restrictions	6%
Poor availability	4%
Never tried it	4%
Obtained free	2%
Other	2%

Consumer Awareness of Avocado Uses

Avocados are served mainly with lunch. Forty percent indicated they served avocados with lunch, while twenty-six percent served them with dinner, eleven percent for breakfast, and thirteen percent between meals. Avocados are mainly used in salads and dips, as shown in the following table.

Uses of Avocados	
Salads	35%
Dips	30%
Sandwiches	17%
Cosmetics	8%
Omelettes	5%
Other	5%
All of the above	3%

Consumer Awareness of Avocado Advertisement

Of the consumers surveyed, only sixty percent had seen an advertisement for

avocados. Of the consumers who had seen avocado advertisements, forty-seven percent had seen them in newspapers and magazines. Store display was noted by 30%, television by 15%, and radio by 7%.

Avocado advertising should be via newspapers and magazines in order to reach consumers most effectively.

Summary and Conclusions

Avocado producers have been confronted with a depressed market since 1980. This resulted from record yields and new bearing acreage, which increased 215 percent from 1972 to 1982. While the supply of avocados has been increasing, demand has increased only 1.9 pounds per capita yearly. In order to increase demand for avocados, one must evaluate and understand consumer awareness of the various uses of avocados. To achieve this, a study was conducted in the Fresno, California, metropolitan area. Data were collected from a telephone random sample survey of 250 households in Fresno. The results were analyzed and various conclusions were drawn.

The percentage of respondents who used avocados was only 56 percent. Respondents preferred the Fuerte over the Mass variety. Income, education, marital status, and family size had significant effects on the consumption of avocados. Avocados should be promoted toward families with three or more members and a yearly household income level between \$10,000 and \$30,000. People with higher education tended to use avocados more. Mexican-Americans and Whites used avocados the most. Orientals tended to use avocados the least. Further study is needed to determine why Orientals use avocados less than other consumers.

The most common uses of avocados are in salads and dips. In order to increase the use of avocados, there is a need to make consumers aware of the many other uses of avocados. Avocado recipes should be published in newspapers and magazines, because this method reaches consumers most effectively and at a lower cost. Consumers purchase avocados most frequently at grocery stores, so the use of promotional tips and ideas will be very effective.

A promotional marketing plan should concentrate mainly on increasing consumer awareness of various recipes and ideas for uses of avocados. Avocados should be promoted as a versatile food.

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