

Farmers' markets please their customers

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The farmers' market is an old institution being revived to fit new times. In the 19th century, most American cities had a public market where farmers hauled their produce to sell directly to local residents. Such markets still play an important role in developing nations. The American public market reached its peak in the 19th century and declined swiftly after that with the growth of cities and suburbs, improved food transportation, and increased popularity of chain stores.

Ten years ago California had only one public farmers' market where small farmers came regularly to sell their crops directly to the public. This was in San Francisco, whose market was established in 1943. Today that market draws a crowd

of 30,000 or more on a summer Saturday. For its 36th anniversary, there were strolling musicians, cooking and canning demonstrations, a beauty queen crowned with a wreath of garlic by the Mayor, and a "farmer of the year" award for the oldest grower actively selling.

Within the last decade, there has been a resurgence of community markets within the state and around the nation. In the last 5 years, approximately 20 community outlets have been established in California. In 1977 the California State Department of Food and Agriculture passed regulations permitting the establishment of certified farmers' markets, easing the standardization requirements on direct-marketing growers, and ensuring that the person selling was the actual grower or a relative or employee of the grower.

The new markets have been established primarily in central and northern California. Southern California has not shown such a response, perhaps because distances are so great. During the past summer, a market was opened in Gardena, which was the only such outlet in the populous Los Angeles Basin. Some farmers must travel 75 to 200 miles to sell at the Gardena market. Certification regulations were changed in 1979, permitting one grower to sell for up to two certified growers, so that small farmers could consolidate loads and save transportation and labor costs.

The survey

The Center for Consumer Research at the University of California, Davis, has been working with the Department of Food and Agriculture to learn as much as possible about the farmers' market resurgence for the benefit of consumers, growers, and the communities in which the markets were situated. The present study has focused on finding out what motivates Californians to shop at farmers' markets. In the summer and fall of 1979 we interviewed 587 customers at 17 certified markets — all the markets that were operating, except the Eureka market. We chose 15 to 56 people at each site, interviewing every available customer at the smaller markets and every fifth available customer at the larger markets.

Reasons for Shopping at a Farmers' Market (587 Respondents)

Reason	Number	Percentage
Freshness	368	63
Price savings	315	54
Social atmosphere	68	12
Helps small farmers	51	9
Curiosity	48	8
Improved flavor	30	5
Good location	30	5
Variety of produce	22	4
Availability of organic produce	21	4
Other reasons		< 1% ea

It was felt that a specific look at the California situation would be useful because of the longer growing season and the newness of these community outlets when compared with those in other states. Seasonal farmers' markets have been operating continuously for over a century in states such as Illinois, Wisconsin, and New York.

Before presenting the results, we should mention one source of bias. The interviewers had difficulty talking with non-English speaking customers. With this reservation, we feel the replies adequately reflect consumer attitudes at the 17 markets.

Slightly more than half of those interviewed considered themselves to be regular customers — a heartening development, since some of the markets were less than a year old. The question of why people shopped at the farmers' market was open-ended; respondents could provide several reasons if they wanted. If the answer was vague, the interviewer asked for clarification so that the answer could be classified into a specific category. As shown in the table, the main motive for shopping at the farmers' market is produce freshness, followed closely by price.

The average amount spent on a shopping trip to the farmers' market was estimated to be \$5. Very few customers spent less than \$1 or more than \$10. The markets are clearly not the main shopping outlet.

The highest level of satisfaction was expressed for the freshness of the produce. Ninety-one percent rated it as good, and the remainder satisfactory. Customers were also highly satisfied with price, flavor, social atmosphere, and the appearance of individual fruits and vegetables. There were very few complaints about any aspect of the markets.

A little more than a third of the customers had ever bought produce for home-processing. Almost everything is bought for immediate table use, underscoring the importance of freshness as the customer's primary motive. Only 5 percent of the respondents had tried drying fruits or vegetables. Given the amount of sun in most parts of the state and the developing technology of solar drying, this seems an important area for consumer education.

Most customers live within 2 miles of the site. Proximity notwithstanding, 85 percent of the respondents came by car! The next largest number (11 percent) came by foot, and this was greatest at the urban markets such as San Jose, West Oakland, and Sacramento. Only in Davis did a significant proportion of respondents (25 percent) arrive on a bicycle. The difficulty of carrying \$5 worth of ripe fruit and vege-

tables seemed to be a major reason for driving a car to the market.

Relatively few customers were in their twenties, and 26 percent were 60 years or older. This heavy representation of senior citizens is consistent with observations at farmers' markets elsewhere in the country. Senior citizens were also well represented among the ranks of sellers.

The sample consisted of two-thirds women and one-third men. The ratio reflects some of the traditional sex roles regarding shopping but is somewhat less skewed than that in some other shopping surveys. In a 1978 survey of customers at

Customers shop at certified farmers' markets in California mainly because of the fresh produce and price savings. Many also enjoy the social atmosphere and like the idea of helping the small farmer.

10 Illinois farmers' markets, 87 percent of the sample were women, and at 19 Louisiana markets surveyed 82 percent were women.

As in the Illinois and Louisiana surveys, we found the customers to be somewhat better educated on the average than people in the surrounding community. Some 5 percent had an eighth grade education or less, 25 percent had gone to high school, 19 percent had some technical school or some college, and 43 percent were college graduates.

With regard to occupation, 39 percent identified themselves as white collar, 11 percent blue collar, 6 percent students, 19 percent retired, 16 percent housepersons, and the remainder were in other categories. A quarter of the respondents did not choose to answer the question regarding family income, but of the remainder, 34 percent had total family incomes of less than \$10,000, 36 percent had incomes between \$10,000 and \$19,999, and 30 percent had total family incomes of \$20,000 or more.

Discussion

We have discussed only one aspect of our research into farmers' markets. Other aspects include price comparisons, flavor trials, and interviews with growers.

The California farmers' market attracts people who live close by, but come by car, and consider themselves to be satisfied regular customers primarily motivated by freshness of produce and price savings. They tend to be well-educated and include a high percentage of retired and senior citi-

zens. About a third of those answering the questions on income estimated their total family income to be less than \$10,000. Many of these were senior citizens for whom price savings were a paramount concern. Many of the elderly customers we interviewed also valued the social atmosphere of the markets as "a great way to start a Saturday."

The concern of these customers with freshness supports the value of the state certification regulations ensuring that the seller is actually the grower. Many of these growers do their picking the day before or early on the morning of market day.

It also seems significant that the second most important motive was price savings. Our current research at 15 farmers' markets around the state supports our initial findings (reported in *California Agriculture*, February 1979): Farmers' markets fruits and vegetables are more than a third less expensive than the same items at the supermarket.

In other research we are documenting the reality of the customer's perception about the social atmosphere. By actual counts, we have found more social conversation per visit in a farmers' market than at supermarkets in the same city.

The motive of curiosity was most significant at the newer markets that had received newspaper or television coverage. Most of the new markets in California suffered from an imbalance of demand over supply when they first opened. Opening day at the Modesto market drew only a few growers who sold out within an hour. The same thing happened at the brand new Gardena market. Experienced shoppers come early.

The variety of produce referred to by 4 percent of the respondents does not refer to range of produce, which is much greater in the supermarket, but number of varieties of a single produce item. There may be six types of tomatoes, peaches, or grapes.

Although few customers mentioned the educational benefits of shopping at a farmers' market, we see these as significant in terms of creating an awareness about local growing conditions and bringing city and country people together. Protection of farming land around the cities now depends in large measure on the attitudes

of city people. It is heartening that 9 percent of the customers mentioned helping small farmers as a reason for shopping at a community market. Many of the growers and their regular customers know each other by name.

Many important questions still await further research, such as effects of the market on the surrounding area. The San Luis Obispo market is held on the parking lot of a local supermarket, whose manager considers the farmers' market to be a boon for business, because it brings customers who still need to buy other products. Chambers of Commerce in some other states actively support farmers' markets as a means of keeping the downtown healthy. The entire fresh produce industry benefits from an increase in consumer awareness of the quality of fresh fruits and vegetables.

In most California cities, the markets are open only one day of the week. Many customers find that this is not sufficient to keep fresh produce on the table. Nor does it provide small farmers with a sufficient outlet for their crops. The long-range solution would be local markets open two or three days a week linked in a regional network, such as the two market linkages in the state, in San Luis Obispo-Salinas-Santa Cruz and Davis-Woodland-East Yolo-Dixon, where the same sellers can make a weekly circuit. Most growers also sell through you-pick, roadside stands, or regular wholesale channels. For the sellers as well as the customers, the markets are an incremental rather than a primary outlet. However, the existence of markets has encouraged several small growers to expand their operations and to alter their planting schedules so that they will have many varieties of items ripening throughout the growing season.

California's certified farm market program is alive and healthy. Although only one market is more than a decade old, they have developed a cadre of satisfied regular customers. For most, the period of initial adjustment is over and the managers and small farmers can now look forward to consolidation and expansion. Conditions of certification make it unlikely that these markets will grow beyond a certain size. The bustling public markets in other cities, such as Pike Place in Seattle or Boston's Quincy Market, are a mix of coffee shops, boutiques, craftspeople, as well as small growers. The certification regulations are likely to keep California's community markets small, local, and "pure."

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Dense sod of dwarf spikerush covering the bottom of the Corning Canal has replaced the sago, curlyleaf, and slender pondweeds that previously grew there. Water flows have increased as a result.

Spikerush may help control waterweeds

Richard R. Yeo

A promising new method for managing waterweeds that could be both economical and enduring is being investigated. Three low-growing aquatic plants have been found to invade areas occupied by rooted submersed aquatic weeds and to slowly displace them. The plants are dwarf spikerush [*Eleocharis coloradoensis* (Britt.) Gilly], barbed spikerush [*E. parvula* (R. & S.) Link], and slender spikerush [*E. acicularis* (L.) R. & S.]. They form large mats of lawnlike sod underwater. Not only do these plants replace submersed waterweeds under suitable conditions, but the crowded upright needlelike culms on the upper part of the spikerush plants can prevent the roots of young floating waterweeds from anchoring in the bottom soil.

The presence of spikerush sod in water transport and holding systems is much more desirable than having submersed waterweeds that grow to the surface through the entire water profile. Compared with the resistance to flow caused by water-

weeds, these 2- to 6-centimeter-tall spikerush plants do not appreciably interfere with the water flow in channels. Their presence also improves navigation, swimming, and esthetic values in reservoirs and ponds.

Several water systems in California have large populations of spikerush, including the Corning Canal in Tehama County, Solano Irrigation District in Solano County, South Sutter Irrigation District in Sutter County, Lake Almanor in Plumas County, Lake Valley Reservoir in Nevada County, and the Ground Water Recharge Facility at Fresno. Dissemination of seed by migrating waterfowl and shorebirds, and flowing water are probably the reasons these plants are so widespread.

Spikerush plants displace rooted and submersed aquatic weeds to depths of 1.5 meters in clear water. Displacement is fastest in canals and reservoirs that have a periodically fluctuating water level or that are emptied during the winter. Spikerush plants thrive both underwater or emersed;