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# A Profile of Farmers' Market Consumers and the Perceived Advantages of Produce Sold at Farmers' Markets

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This study examines responses of 336 produce consumers in San Luis Obispo County, California, to compare the profile of farmers' market shoppers to those who do not shop at farmers' markets. The characteristics of produce sold in farmers' markets are compared to those sold at supermarkets to determine why consumers shop in farmers' markets. This examination of the demographic profile of farmers' market produce consumers indicates that they are more likely to be female, married, and have completed post graduate work. The age levels, income levels, and employment status are similar between farmers' market shoppers and farmers' market non-shoppers. Farmers' market shoppers indicate that cooking and family meals are important to them. Consumers indicate that quality and value are among the most important attributes when purchasing produce. Consumers perceive that farmers' market produce is fresher looking, fresher tasting, a higher-quality product, a better value for the money, more reasonably priced, more likely to be grown in their country, more likely to be locally grown, more likely to be good for the environment, and more likely to be traceable to the processor and grower when compared to supermarket produce. However, many consumers do not shop at farmers' markets due to a lack of convenience.

Farmers' markets continue to rise in popularity as consumer demand for obtaining fresh products directly from the farm increases; as a result, farmers' markets have become an increasing visible part in the urban-farm linkage. Farmers' markets operate with the goal of providing opportunities for small family farms in California to sell their fresh produce directly to consumers. Farmers' markets provide a vital source of revenue for many farmers with small to medium operations. The number of farmers' markets in the United States has grown significantly, increasing 79% from 1994 to 2002 (AMS-USDA 2002) with more than 350 in California.

Direct marketing of agricultural products at farmers' markets has become an important sales outlet for smaller farm operations nationwide. Approximately three million Americans purchase produce every week directly from the farmers at local farmers' markets (Egan 2002). Despite the increases in numbers and popularity, farmers' markets represent a very small portion of the agricultural industry's sales. In California, 1% of all produce is sold at farmers' markets (Berrenson 2003).

Eastwood, Brooker, and Gray (1998) conducted a study with similar goals in Tennessee using six organized farmers' markets. They found the typical farmers' market patron to be female and 45 or older,

with some college education and an above-average income. The preferred information source was food or living sections of newspapers and local radio broadcasts.

This research updates the 1995 research published by Wolf (1997), which compared the tastes and preferences of consumers who purchased farmer's market produce to those who purchased supermarket produce. Characteristics of produce that were found to be very desirable to extremely desirable and were perceived as an advantage for farmers' market produce included fresh looking, fresh tasting, high-quality product, and a good value for the money. Characteristics of produce that were found to be very desirable to extremely desirable and were perceived to be an advantage for supermarkets' produce included convenience to buy and ease of access (Wolf 1997).

A North Carolina farmers' market study provided insight into consumers of farmers' markets. When asked why they came to the farmers' market, 88% of respondents indicated they came for fresh produce, 64% said they came for local products, and 16% came for inexpensive food. When asked of disadvantages of farmers' markets, 23% of consumers said distance to travel to the farmers' market, 14% indicated seasonal variation in food availability, and 12% mentioned hours of operation (Andreatta and Wickliffe 2002). Thus the findings of Wolf (1997) and Andreatta and Wickliffe (2002) appear to indicate that consumers shop at farmers' markets for

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fresher produce. However, inhibitors to shopping at farmers' markets include convenience factors.

### Methodology

Primary data was collected through the use of a survey instrument administered through a personal interview of 336 food purchasers at food stores in San Luis Obispo, California during the spring of 2003 and winter of 2004. Since most consumers must shop at a supermarket for some food products, this sample is expected to be a representative sample of food shoppers. The profile of farmers' market consumers provided by this research reflects those that shop in the 19 farmers' markets in San Luis Obispo County. San Luis Obispo County was designated the best test market in the United States by *Demographics Daily*; it was found to be the best of 3,141 counties to represent a microcosm of the United States based on 33 statistical indicators (Thomas 2001).

### Demographic Profile

Forty-two percent of consumers indicated that they purchased produce at a farmers' market in the past month. The demographic profile of farmers' market consumers (Table 1) indicates that they are more likely to be female, married, and have completed post graduate work. The age levels, income levels, and employment status are similar between farmers' market shoppers and farmers' market non-shoppers. In 1995, an analysis of the demographic profile of farmers' market shoppers in San Luis Obispo County indicated that they tended to be older, were more likely to be married, and were more likely to not be employed, compared to non-farmers' market shoppers. Shoppers were in the middle and higher ends of the income distribution. Thus it appears that the current farmers' markets consumers are from a broader age and income range than are the consumers shopping at farmers' markets in 1995.

### Produce-Purchasing Behavior

Both farmers' market shoppers and non-shoppers spent the same on produce in a typical week—an average of \$25.37—and shopped for produce a similar number of times, typically 5.88 times per month (Table 2).

However, the two groups purchase produce at

different locations. Table 3 shows that farmers' market shoppers are more likely than non-shoppers to purchase produce at farmers' markets, farm stands, and specialty food stores. Although farmers' market shoppers purchase produce in more locations, they are similar to non-shoppers in their purchase habits of produce at supermarkets. Supermarkets are the primary location for produce shopping for both groups. Approximately 95% of all consumers have purchased produce items at a supermarket in the past month and year.

Table 4 shows that farmers' market consumers are more likely to have purchased organic food products for consumption at home, 75.5%, compared to non-shoppers, 55.9%. Farmers' market shoppers are more likely to purchase organic fruit and vegetables than are non-farmers' market consumers. Consumption patterns of organic meats, wine, and other food products are similar between shoppers and non-shoppers.

### Attitudes Toward Farmers' Markets

#### *Reasons for Shopping at Farmers' Markets*

To identify the attraction of farmers' markets, respondents were asked their primary reason for attending farmers' markets and all of the reasons they attended farmers' markets. Table 5 shows the primary reason shoppers attended farmers' markets is the high-quality product. The primary reason non-shoppers—that is, those that have not shopped in the past month—attended farmers' markets is to eat. Farmers' market consumers are more likely than non-shoppers to attend farmers' markets for the following reasons: high-quality products, good value for the money, specialty items, buy directly from farmers, to socialize, for entertainment, to shop area stores, and purchase organic produce.

Respondents also indicated the primary reason for not attending farmers' markets. The primary reasons farmers' markets were not attended were similar between shoppers and non-shoppers. Both groups primarily do not attend farmers' markets because they are held at inconvenient times and parking is a problem. These responses are weaknesses of farmers' markets and inhibit consumers from shopping at farmers' markets. The reasons consumers shop and do not shop at farmers' markets were similar to the findings of Andreatta and Wickliffe for farmers' markets in North Carolina

**Table 1. Demographics of Total Sample, Farmers' Market Shoppers, and Non-Shoppers.**

	Total sample (n=336)	Shoppers (n=140)	Non-shoppers (n=187)	Chi Square <sup>a</sup>
Age				
Under 20 years	2%	0%	2%	
20 to 24 years	14%	16%	13%	
25 to 44 years	36%	35%	36%	
45 to 54 years	22%	21%	24%	
55 to 59 years	8%	7%	8%	
Over 60 years	18%	21%	17%	4.68
Gender				
Female	56%	64%	50%	
Male	44%	36%	50%	5.75*
Marital Status				
Married	52%	61%	46%	
Living with a partner	9%	4%	12%	
Single	28%	25%	30%	
Separated/Divorced	5%	3%	7%	
Widowed	6%	7%	5%	11.83*
Income Levels				
Less than \$20,000	8%	6%	9%	
\$20,000–\$29,999	13%	14%	12%	
\$30,000–\$39,999	14%	12%	16%	
\$40,000–\$54,999	17%	17%	16%	
\$55,000–\$69,999	18%	16%	20%	
\$70,000–\$99,000	16%	17%	16%	
More than \$100,000	14%	18%	11%	4.60
Employment Status				
Employed, full time	59%	52%	63%	
Employed, part time	17%	19%	16%	
Not Employed	24%	29%	21%	4.20
Education Levels				
Grade school or less	1%	0%	1%	
Some high school	1%	1%	1%	
High school graduate	16%	10%	19%	
Some college	35%	34%	37%	
College graduate	35%	38%	33%	
Post-graduate work	12%	17%	9%	10.35**

<sup>a</sup> Tests for independence between shoppers and non-shoppers.

\* Indicates statistical significance at the 0.05 level.

\*\* Indicates statistical significance at the 0.1 level.

**Table 2. Purchasing Produce, Total Sample, Farmers' Market Shoppers, Non-Shoppers.**

	Total sample (n=336)	Shoppers (n=140)	Non-shopper (n=187)	t Statistic
Mean Dollars/Week	\$25.37	\$25.38	\$25.64	0.11
Mean Times/Month	5.88	6.12	5.61	-1.11

\* Indicates statistical significance at the 0.05 level using independent sample t-test.

**Table 3. Point of Produce Purchases, Total Sample, Shoppers, Non-Shoppers.**

	Total sample (n=336)	shoppers (n=140)	Non-shopper (n=187)	Chi Square <sup>a</sup>
Past Year				
Supermarket	97.3%	95.7%	98.4%	2.19
SLO county farmers' market	66.0%	95.7%	42.7%	98.50*
Farm stand	35.9%	44.0%	30.5%	6.21*
Specialty food stores	37.8%	50.0%	29.4%	14.15*
Other	16.1%	17.5%	15.0%	0.38
Past Month				
Supermarket	94.7%	94.3%	94.7%	0.02
SLO county farmers' market	42.8%	100.0%	0%	-
Farm stand	18.5%	26.7%	12.9%	9.75*
Specialty food stores	24.1%	33.3%	17.2%	11.16*
Other	8.2%	10.9%	5.9%	2.70**

\* Indicates statistical significance at the 0.05 level using chi square test for independence.

\*\* Indicates statistical significance at the 0.1 level using chi square test for independence.

<sup>a</sup> Tests for independence between shoppers and non-shoppers.

**Table 4. Purchasing Organics, Total Sample, Shoppers, Non-Shoppers.**

	Total sample (n=336)	Shoppers (n=140)	Non-shoppers (n=187)	Chi Square <sup>a</sup>
<b>Purchased Organics in Past Year</b>	64.7%	75.7%	55.9%	13.66*
<b>Past Year Purchases</b>				
Meat	22.6%	24.3%	20.3%	0.73
Fresh fruit	58.0%	70.6%	47.8%	16.54*
Fresh vegetables	60.6%	72.5%	51.4%	16.90*
Wine	11.7%	14.1%	9.7%	2.55
Other	9.8%	11.0%	9.7%	1.02

\*Indicates statistical significance at the 0.05 level using chi square test for independence

<sup>a</sup> Tests for independence between shoppers and non-shoppers.

**Table 5. Farmers' Market Appeal, Total Sample, Shoppers, Non-Shoppers.**

	Total sample (n=336)	Shoppers (n=140)	Non-shoppers (n=187)	Chi Square <sup>a</sup>
<b>Primary Reason Attend</b>				
Products are good value	12.8%	10.9%	15.0%	
Products are high quality	25.2%	32.0%	18.7%	
To socialize	16.1%	14.8%	16.8%	
Shop area stores	2.9 %	0.8%	5.6%	
Shop for specialty items	6.2%	7.8%	2.8%	
Buy direct from farmers	7.4%	10.9%	2.8%	
Purchase organic produce	5.4%	7.8%	2.8%	
Attend special events	1.2%	1.6%	0.9%	
For entertainment	6.6%	5.5%	8.4%	
To eat	12.8%	7.0%	19.6%	
Purchase local wines	2.1%	0.8%	3.7%	
Other	0.8%	0.0%	1.9%	
Do not attend	0.4%	0.0%	0.9%	34.20*
<b>All Reasons Attend</b>				
Products are good value	51.4%	69.8%	35.3%	32.92*
Products are high quality	54.4%	75.0%	35.6%	43.07*
To socialize	45.0%	50.8%	39.5%	3.55**
Shop area stores	31.6%	35.9%	26.5%	2.84**
Shop for specialty items	45.8%	63.3%	28.2%	34.35*
Buy direct from farmers	37.8%	54.7%	22.5%	30.67*
Purchase organic produce	26.3%	35.4%	18.1%	10.66*
Attend special events	25.8%	29.5%	21.2%	2.47
For entertainment	44.0%	50.0%	37.7%	4.25*
To eat	49.3%	54.5%	44.9%	2.46
Purchase local wines	11.9%	14.8%	9.3%	0.79
Other	13.1%	16.4%	8.1%	4.49*
<b>Primary Reason Do Not Attend</b>				
Held at inconvenient times	28.9%	29.2%	27.1%	
Too far from home	13.7%	12.3%	14.7%	
No use for such products	3.6%	4.6%	3.1%	
Market not a good value	2.0%	0.0%	3.1%	
Buy all food at same time	13.7%	9.2%	16.3%	
Prefer supermarket produce	0.5%	1.5%	0.0%	
Parking is a problem	19.8%	21.5%	19.4%	
Other	17.8%	21.5%	16.3%	6.83

\* Indicates statistical significance at the 0.05 level using chi square test for independence.

\*\* Indicates statistical significance at the 0.1 level using chi square test for independence.

<sup>a</sup> Tests for independence between shoppers and non-shoppers.



and those reported by Wolf for farmers' markets in San Luis Obispo in 1995.

#### *Desirability of Produce Characteristics*

In order to understand the characteristics that motivate consumers to purchase produce, the methodology described by Clancy and Shulman (1991) is used for product positioning. Twelve characteristics that describe produce were rated on a five-point desirability scale. Price and quality characteristics were rated multiple times using different descriptors to cross validate their desirability to consumers. Respondents were asked the following question:

"Please rate the desirability of the following characteristics you look for when shopping for produce where:

- 5 = Extremely desirable
- 4 = Very desirable
- 3 = Somewhat desirable
- 2 = Slightly desirable
- 1 = Not at all desirable."

Analysis of the mean ratings of the interval data indicates that the characteristics are divided into three categories: highly desirable characteristics, moderately desirable characteristics, and slightly

desirable characteristics. The mean desirability ratings are presented in Table 6. The highly desirable characteristics for San Luis Obispo County consumers when shopping for produce are those concerning appearance, taste, quality, value, and price. The moderately desirable produce characteristics are those associated with being nationally grown, inexpensive, locally grown, good for the environment, and traceable to the processor and grower. Slightly desirable produce characteristics are irradiated to kill bacteria and organically grown. These results are similar to Wolf's 1995 findings. Consumers in 1995 also indicated that quality and value were among the most important attributes when purchasing produce (Wolf 1997).

#### *A Comparison of Produce Sold at Farmers' Markets Versus Supermarkets*

In order to understand how San Luis Obispo County consumers perceive produce sold at farmers' markets versus that sold at supermarkets, respondents rated produce sold at farmers' markets and produce sold at supermarkets on the twelve produce characteristics that had been rated for desirability. Respondents answered the following question:

**Table 6. Desirability Ratings of Produce Characteristics for Total Sample.**

Based on 5-point scale	Mean rating (n=336)	Paired t-statistic (n=336)
Highly Desirable		
Fresh looking	4.67	
Fresh tasting	4.61	1.02
High quality product	4.44	-3.02*
Good value for the money	4.29	2.57*
Reasonably priced	4.15	3.07*
Moderately Desirable		
Grown in my country	3.86	3.50*
Inexpensive	3.67	2.04*
Grown by local farmers	3.53	-1.51
Good for the environment	3.52	0.14
Can be traced to the processor & grower	3.37	0.96
Slightly Desirable		
Irradiated to kill bacteria	2.84	-3.96*
Organically grown	2.76	-0.90

\* Indicates statistical significance at the 0.05 level using paired sample t-test.

Based on your perceptions, please use the following scale to describe the produce, which can be purchased at farmers' markets and supermarkets:

- 5 = Describes completely
- 4 = Describes very well
- 3 = Describes somewhat
- 2 = Describes slightly
- 1 = Does not describe at all."

Table 7 shows that produce sold at farmers' markets has a relative advantage over produce sold at supermarkets on all five of the highly desirable produce characteristics. Farmers' markets rated higher on fresh looking, fresh tasting, high-quality products, good value for the money, and reasonably priced.

Farmers' market produce rated higher than supermarket produce on four of the five moderately desirable characteristics of produce. Farmers' markets have an advantage over supermarkets on grown in my country, grown by local farmers, good for the environment, and can be traced to the processor and grower. Farmers' market produce and supermarket produce rate similarly on the moderately desirable produce characteristic, inexpensive. For the slightly desirable characteristics of produce, farmers' market

produce rated higher on organically grown, while supermarket produce rated higher on irradiated to kill bacteria.

The comparison of the mean ratings of produce characteristics indicates that consumers perceive that farmers' market produce is fresher looking, fresher tasting, a higher-quality product, a better value for the money, and more reasonably priced than supermarket produce. In addition, consumers perceive that farmers' market produce is more likely to be grown in their country, locally grown, good for the environment, and traceable to the processor and grower when compared to supermarket produce. All of these characteristics provide farmers' market produce with a competitive advantage over supermarket produce. Thus these produce characteristics are weaknesses for supermarkets and may influence consumers to shop for produce at farmers' markets rather than supermarkets.

Wolf found similar results in 1995. Produce sold at farmers' markets had a relative advantage over supermarket produce on four of the seven highly desirable produce characteristics and three of the six moderately desirable characteristics of produce (Table 8). Farmers' markets rated higher on: fresh looking, fresh tasting, high-quality product, good value for the money, locally grown, sold by grower,

**Table 7. Mean Ratings of Produce Sold at Farmers' Markets Versus Supermarkets.**

Based on 5-point scale	Farmers' markets (n=336)	Supermarkets (n=336)
Highly Desirable		
Fresh looking	4.24*	3.78
Fresh tasting	4.17*	3.53
High quality product	4.06*	3.62
Good value for the money	3.83*	3.61
Reasonably priced	3.63*	3.42
Moderately Desirable		
Grown in my country	4.27*	3.29
Inexpensive	3.29	3.30
Grown by local farmers	4.20*	2.84
Good for the environment	3.46*	2.89
Can be traced to the processor & grower	3.86*	2.74
Slightly Desirable		
Irradiated to kill bacteria	2.55	3.12*
Organically grown	3.05*	2.53

\* Indicates statistical significance at the 0.05 level using paired sample t-test.



**Table 8. Perceived Advantages of Produce Sold at Farmers' Markets Versus Supermarkets.**

	Farmers' markets advantage	Supermarkets advantage	Parity
Highly Desirable	Fresh looking Fresh tasting High quality product Good value for the money Reasonably priced		
Moderately Desirable	Grown in my country Grown by local farmers Good for the environment Can be traced to processor & grower		Inexpensive
Slightly Desirable	Organically grown	Irradiated to kill bacteria	

and grown organically. Furthermore, in 1995 consumers rated convenience factors. Supermarkets rated higher on those factors. This research has shown that convenience is the most important reason why consumers do not shop at farmers' markets.

#### *General Attitudes*

In order develop a limited psychographic profile of farmers' market consumers, respondents were asked:

"Based on a four point scale, with four being strongly agree and one being strongly disagree, how strongly do you agree or disagree with the following statements:

The main meal of the day is the most important time of the day for my household.

Exercise is an important part of my weekly activities.

I am very concerned about the world food supply in the next 10 years.

Recent events have made me very concerned about the safety of the food I eat.

I am very busy and have very little time to cook.

I would be more likely to attend a farmers' market if local wine was sold.

I enjoy cooking."

Table 9 shows that farmers' market produce consumers are more likely than non-shoppers to agree with the following statements "I enjoy cooking," "the main meal of the day is the most important time of day," and "I am very concerned about the world food supply." Shoppers and non-shoppers have similar attitudes towards the statements "exercise is an important part of my weekly activities," "recent events have made me very concerned about the safety of the food I eat," and "I am very busy and have very little time to cook." Thus it appears that farmers' market consumers are more involved in cooking than are those that do not shop at farmers' markets.

#### **Conclusions**

In 1995, an analysis of the demographic profile of farmers' market shoppers indicated that they tend to be older, are more likely to be married, and are more likely to not be employed compared to non-shoppers. Shoppers were in the middle and higher ends of the income distribution. This study finds that the demographic profile of farmers' market produce consumers in broader than that found in 1995. This is likely a reflection of the growth observed by the USDA in farmers' markets over the past eight years. This research indicates that farmers' market shoppers are more likely to be female, married, and to have completed post-graduate work. The age levels,

**Table 9. Mean Ratings of General Attitudes, Total Sample, Shoppers, Non-Shoppers.**

Based on 4-point scale	Total sample (n=336)	Shoppers (n=140)	Non-shoppers (n=187)	t Statistic
Exercise is an important part of my weekly activities	3.27	3.31	3.24	-0.88
I enjoy cooking	3.11	3.29	2.98	-2.91*
The main meal of the day is the most important time of day for my household	3.09	3.21	3.01	-2.05*
Recent events have made me very concerned about the safety of the food I eat	2.74	2.79	2.68	-1.02
I am very concerned about the world food supply for the next 10 years	2.72	2.89	2.59	-3.02*
I am very busy and have very little time to cook meals	2.50	2.41	2.57	1.52
I would be more likely to attend a farmers' market if local wine was sold	1.97	2.02	1.89	-0.73

\* Indicates statistical significance at the 0.05 level using independent sample t-test.

income levels, and employment status are similar between farmers' market shoppers and farmers' market non-shoppers. While most of the demographic characteristics are similar between farmers' market shoppers and non-shoppers, farmers' market produce shoppers to place more importance on food since they are more likely to agree with the statements "I enjoy cooking," "the main meal of the day is the most important time of day," and "I am very concerned about the world food supply."

The factors that drive produce purchasing are similar to those found in 1995. Consumers continue to indicate that quality and value are among the most important attributes when purchasing produce. In 1995, farmers' markets rated higher on fresh looking, fresh tasting, high-quality product, good value for the money, locally grown, sold by grower, and grown organically. Supermarkets rated higher on convenient to buy, easily accessible, convenient to use, always available, pre-cut and packaged, a familiar brand name, and purchased without needing cash.

The recent comparison of the mean ratings of produce characteristics indicates that consumers perceive that farmers' market produce is fresher looking, fresher tasting, a higher-quality product,

a better value for the money, more reasonably priced, more likely to be nationally grown, more likely to be locally grown, more likely to be good for the environment, and more likely to be traceable to the processor and grower when compared to supermarket produce. Lack of convenience is a reason consumers do not shop for produce at farmers' markets.

Marketing efforts to continue to increase sales at farmers' markets should be positioned to consumers that enjoy cooking and mealtime. Furthermore, the quality, freshness, value, and locally grown characteristics of the produce sold at farmers' markets should be emphasized.

## References

- Agricultural Marketing Service (AMS-USDA). 2002. *AMS Farmers' Market Facts*.
- Andreatta, S. and W. Wickliffe II. 2002. "Managing Farmer and Consumer Expectations: A Study of a North Carolina Farmers' Market." *Human Organization* 61(2):167-176.
- Berrenson, E. 2003. "A Comparison of Purchasing Behaviors and Consumer Profiles at San Luis Obispo's Thursday Night Farmers' Market: A

- Case Study.” Unpublished Senior Project, California State University: San Luis Obispo.
- Clancy, K. J. and R. Shulman. 1991. *The Marketing Revolution*. Harper Business, HarperCollins Publishers: New York.
- Egan, T. 2002. “Growers and Shoppers Crowd Farmers’ Markets.” *New York Times* 29 November 29.
- Eastwood, D., J. Brooker, and M. Gray. 1998. “Consumer Attitudes, Perceptions, and Behaviors About Locally Grown Fresh Produce: A Case Study of Six Locations in Tennessee,” Univ. of Tennessee AES Res. Report 98-09. September.
- Thomas, S. G. 2001. “Playing in San Luis Obispo.” *Demographics Daily* 6 February.
- Wolf, M. M. 1997. “A Target Consumers Profile and Positioning for Promotion of the Direct Marketing of Fresh Produce: A Case Study.” *Journal of Food Distribution Research* 28(3):1–17.