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Consumer Attitudes Toward Organically Grown Lettuce

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This research shows that approximately 29 percent of lettuce purchasers in California expect to purchase an organically grown lettuce product in the future. Organic lettuce purchasers are more likely to be female, have a higher household income and a higher level of education. Consumers are concerned with the freshness, quality, price, and environmental impact of the lettuce they purchase.

The purpose of this research is to examine the demographics and category purchasing behavior of consumers who plan to purchase organic lettuce in the future. Organic refers not to the food itself, but how it is produced—methods of growing and processing foods that rely on the earth's natural resources. The organic production process is based on a system of farming that maintains and replenishes the fertility of the soil. Organic foods are produced without the use of synthetic pesticides and fertilizers. These foods are minimally processed to maintain the integrity of the food without artificial ingredients, preservatives, or irradiation.

Sales of organic food totaled \$4.2 billion in 1997. Sales of organic produce totaled \$680 million in 1997. Recent reports in *The Organic Consumer Profile* show evidence that almost one-third of the entire U.S. is buying organically grown food products (*The Packer*). While organic foods currently represent only two percent of overall produce sales, they are expected to see large returns in the future. There are over 600 organic-producer associations in 70 different countries. The U.K. is fast becoming important in the international organic-food market, which is currently growing at a rate of 22 percent each year. The organic market is growing rapidly—an average of 25 percent per year—and is expected to continue to grow as more people become informed about organic foods.

Methodology

This research examines the consumer attitudes of 259 head-lettuce purchasers in northern, central, and southern California toward organic and conventionally grown head-lettuce products. A survey instrument was administered through personal interviews

in October and November of 1999. This research defines the target consumers of organic lettuce as those who plan to purchase at least two heads of organic lettuce out of their next ten purchases; that is, 20 percent of target consumers' future head lettuce purchases are anticipated to be organic. Twenty-nine percent of head-lettuce purchasers are in the target market for organic head lettuce.

Demographic Profile Of Environmentally Friendly Lettuce Target Consumers

Target consumers for organic lettuce are less likely to be married or living with a partner than are non-target head lettuce purchasers. In addition, target consumers are more likely to be female, have a mid-range household income, have a college education, be single, and be between the ages of 22 and 39.

Category Behavior Of Target Consumers

Organic purchasers spend the same in a typical month as those who are not organic purchasers. However, they allocate more of their lettuce purchases to leaf lettuce. Organic consumers indicated that 39 percent of their lettuce purchases were head lettuce, 26 percent were leaf lettuce, and 35 percent were pre-packaged salad.

Organic purchasers indicated that they will allocate 56 percent of their head lettuce purchases, 52 percent of their leaf lettuce purchases, and 50 percent of their prepackaged lettuce purchases to organic products. The remainder of their purchases will be conventionally grown lettuce.

Positioning Of Lettuce

A successful product-positioning is based on the factors that motivate consumers to purchase one product over another. The competitive products examined here are conventionally grown lettuce and

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Table 1. Demographics

	Organic (N = 74)	Non-Organic (N=179)	Chi Square^a
<u>Age</u>			
18-21	9.5%	5.7%	
22-24	18.9%	12.5%	
25-29	10.8%	13.1%	
30-34	28.4%	12.5%	
35-39	12.2%	9.1%	
40-44	9.5%	18.2%	
45-49	4.1%	13.1%	
50-54	2.7%	6.3%	
55-59	0.0%	4.1%	
60+ years	4.0%	5.7%	22.006**
<u>Marital Status</u>			
Married / Partner	39.2%	51.7%	
Single	60.8%	46.0%	
Widowed	0.0%	2.3%	5.64*
<u>Gender</u>			
Male	26.4%	39.4%	
Female	73.6%	60.6%	3.78*
<u>Education Levels</u>			
Grade school or less	2.7%	0.0%	
Some high school	0.0%	1.1%	
High school graduate	6.8%	14.8%	
Some college	31.1%	35.8%	
College graduate College Graduate	51.4%	42.0%	
Post graduate work	8.1%	6.3%	9.905*
<u>Income Levels</u>			
< \$20,000	18.1%	12.5%	
\$20,000-\$24,999	6.9%	6.8%	
\$25,000-\$29,999	8.3%	10.2%	
\$30,000-\$34,999	8.3%	14.8%	
\$35,000-\$39,999	20.8%	10.8%	
\$40,000-\$49,999	12.5%	11.9%	
\$50,000-\$59,000	9.7%	11.9%	
\$60,000-\$69,000	2.8%	5.7%	
> \$70,000	12.5%	15.3%	8.115
<u>Employment Status</u>			
Employed full-time	64.3%	68.2%	
Employed part-time	28.6%	22.7%	
Not Employed	7.1%	9.1%	0.527
<u>Education Levels</u>			
Grade school or less	2.7%	0.0%	
Some high school	0.0%	1.1%	
High school graduate	6.8%	14.8%	
Some college	31.1%	35.8%	
College graduate College Graduate	51.4%	42.0%	
Post-graduate work	8.1%	6.3%	9.905*

^aTests for independence between value-added target and non-target.

**Significant at the 0.05 level.

*Significant at the 0.10 level.

organically grown lettuce. In order to develop a successful positioning, the characteristics desirable to consumers when they shop for lettuce must be identified. The characteristics that consumers want when they purchase lettuce were examined by desirability ratings of nineteen characteristics. The most desirable characteristics are those that should be used in the development of a product positioning. The product positioning for organically grown lettuce should also stress the characteristics that consumers perceive organically grown lettuce to have relative to the competition.

In order to understand how consumers perceive the organically grown lettuce and conventionally grown lettuce, each product was rated on the nineteen characteristics evaluated for desirability. It is important to note that store displays, advertisements, word of mouth, public relations, and the media all lead consumers to develop perceptions about products—in this case, organically grown lettuce and conventionally grown lettuce. The perceptions about a product provide the consumer with the information they use to decide whether or not to purchase a product. The product's promotional

Table 2. Heads Of Lettuce In One Month

	Organic (N = 74)	Non-Organic (N=179)	t-test
Heads of Lettuce in One Month	3.58	3.73	0.409
Dollars of Head Lettuce in One Month	\$4.83	\$4.70	0.251

**Significant at the 0.05 level using an independent sample t-test.

*Significant at the 0.10 level using an independent sample t-test.

Table 3. Last 10 Lettuce Purchases

	Organic (N=74)	Non-Organic (N=179)	t-test
Head lettuce	39%	48%	2.56**
Leaf lettuce	26%	15%	3.48**
Pre-Packaged Salad	35%	37%	0.479

**Significant at the 0.05 level using an independent sample t-test.

*Significant at the 0.10 level using an independent sample t-test.

Table 4. Types Of Lettuce Will Purchase

	Organic (N = 74)	Non-Organic (N=179)	t-test
Head Lettuce			
Conventionally Grown Lettuce	44%	100%	4.85**
Organic Lettuce	56%	0%	14.85**
Leaf Lettuce	(N=60)	(N=131)	
Conventionally Grown Lettuce	48%	94%	2.43**
Organic Lettuce	52%	6%	8.66**
Prepackaged Lettuce	(N=65)	(N=149)	
Conventionally Grown Lettuce	50%	96%	2.71**
Organic Lettuce	50%	4%	9.39**

**Significant at the 0.05 level using an independent sample t-test.

campaign must communicate the appropriate information to consumers who have not had experience with the product. The promotional campaign also reinforces the perceptions of consumers who have had experience with the product.

Desirability Ratings of Lettuce Characteristics

Respondents rated nineteen characteristics that describe lettuce on a five-point desirability scale to examine the characteristics of lettuce that impact a consumer's purchase decision (*The Packer*). Characteristics of lettuce concerning freshness, quality, price, and impact on the environment were rated. Consumers were asked the following question:

"Please rate the following characteristics you look for when shopping for lettuce 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 groups: very to extremely desirable characteristics, somewhat to very desirable characteristics, and slightly to somewhat desirable characteristics. The attributes that are very to extremely desirable to lettuce consumers are freshness, value, free of insects, and safe for workers. The somewhat to very desirable characteristics of lettuce concern the environmental impact of growing lettuce and price. The characteristics of lettuce that received the lowest mean ratings, slightly to somewhat desirable, were brand, organically grown, and certified organic.

An important finding of this research shows that consumers value organic characteristics such as environmentally friendly as somewhat to very desirable, while they rate organically grown and certified as only slightly to somewhat desirable. This finding indicates that consumers do not understand the characteristics of organically grown

Table 5. Desirability Characteristics Of Lettuce

Characteristic	Mean	Standard Error
Very to extremely desirable		
fresh looking	4.97	0.20
fresh tasting	4.79	0.04
a high quality product	4.45	0.05
free of insects	4.44	0.06
safe for the workers	4.17	0.07
reasonably priced	4.02	0.17
a good value for the money	4.00	0.06
Somewhat to very desirable		
free of pesticides	3.95	0.07
good for the environment	3.72	0.08
grown in a way that it is good for the ground water	3.70	0.08
earth friendly	3.66	0.08
grown in a way that is good for the air	3.58	0.08
grown in a way that is good for the soil	3.56	0.08
sale priced	3.52	0.08
conventionally grown	3.06	0.08
Slightly to somewhat desirable		
a brand that I know	2.90	0.09
organically grown	2.86	0.07
organically certified	2.80	0.08
genetically modified	2.26	0.07

produce. Therefore, it is important that organic producers and sellers educate consumers about what exactly defines organic produce.

A comparison of the characteristic ratings of organic consumers and those who do not plan to purchase organic lettuce in the future indicates that they want similar characteristics in the lettuce they purchase. However, organic purchasers indicate a higher level of desirability of lettuce that is free of pesticides.

A Comparison of Environmentally Friendly versus Conventionally Grown Lettuce and Organic Lettuce

In order to understand how consumers perceive organically grown lettuce and conventionally grown lettuce, respondents rated them on the characteristics which had been rated for desirability. Respondents answered the following question:

“Based on your perceptions, please use the following scale to describe how these characteristics describe organic and conventionally grown lettuce where: 5 = Describes completely; 4 = Describes very well; 3 = Describes somewhat; 2 = Describes slightly; 1 = Does not describe at all.”

The organically grown lettuce was rated higher than conventionally grown lettuce on the very to extremely desirable characteristic “safe for the workers.” However, conventionally grown lettuce is rated higher on the very to extremely desirable characteristic “fresh looking, reasonably priced, a good value for the money.”

The product ratings in Table 7 show that the use of the name “Organically Grown” communicated the benefits of the product. The new organically grown product rates higher than convention-

Table 6. Desirability Characteristics Of Lettuce

Characteristic	Organic (N=74)	Non -Organic (N=178)	t-test
Very to extremely desirable			
fresh looking	4.78	4.78	0.42
Fresh tasting	3.22	2.63	3.44
A high quality product	4.38	4.49	1.01
free of insects	4.35	4.48	0.95
safe for the workers	4.22	4.17	0.33
reasonably priced	3.84	3.91	0.50
a good value for the money	3.92	4.06	0.97
Somewhat to very desirable			
free of pesticides	4.20	3.98	2.21**
good for the environment	3.88	3.69	1.19
grown in a way that it is good for the ground water	3.76	3.72	0.23
earth friendly	3.85	3.61	1.60
grown in a way that is good for the air	3.69	3.56	0.75
grown in a way that is good for the soil	3.70	3.51	1.18
sale priced	3.41	3.58	1.02
conventionally grown	3.05	3.07	0.11
Slightly to somewhat desirable			
a brand that I know	2.85	2.94	0.46
organically grown	3.31	2.66	4.02**
organically certified	3.22	2.63	3.44**
genetically modified	2.47	2.17	1.91*

** Indicates statistical significance at the .05 level using paired t-test

*Indicates statistical significance at the .10 level using paired t-test

ally grown lettuce on six of the eight somewhat to very desirable environmental characteristics.

Marketing Implications

This research defines the target consumers of organic lettuce as those who plan to allocate at least 20 percent of future head-lettuce purchases to organic head lettuce. Twenty-nine percent of head lettuce purchasers are in the target market for organic head lettuce. Organic purchasers are females with relatively high demographic characteristics. The target consumers for organically grown lettuce purchase similar quantities of lettuce relative to head-lettuce purchasers who are not likely to purchase organically grown lettuce. They plan to allocate a little more than one-half of their lettuce pur-

chases to organically grown lettuce if it is available in the stores where they shop.

Marketing communications for organically grown lettuce should support the organic quality of the product. However, they must include information supporting the very to extremely desirable characteristics of freshness, quality, and price.

References

- "Fresh Trends 1999 Profile of the Fresh Produce Consumer." *The Packer*, Vance Publishing Corp., 2001.
- Clancy, Kevin J., Robert S. Shulman, Marianne M. Wolf. 1994. *Simulated Test Marketing, Technology for Launching Successful New Products*. Lexington Books. New York, p. 31.

Table 7. Product Mean Ratings

Characteristic	Organic Lettuce (N=121)	Conventional Lettuce (N=136)	t-test
Very to extremely desirable			
fresh looking	3.94	4.48	4.15**
fresh tasting	4.00	4.19	1.27
A high quality product	4.04	3.94	0.64
free of insects	3.64	3.79	0.76
safe for the workers	3.87	3.05	4.89**
reasonably priced	2.83	3.73	3.91**
A good value for the money	3.00	3.87	5.46**
Somewhat to very desirable			
free of pesticides	4.21	3.30	5.48**
good for the environment	4.07	3.18	5.97**
grown in a way that it is good for the ground water	3.84	3.06	2.69**
earth friendly	3.95	2.91	6.51**
grown in a way that is good for the air	3.90	2.96	5.34**
grown in a way that is good for the soil	3.90	3.04	5.34**
sale priced	2.56	3.23	3.87**
conventionally grown	2.65	3.58	4.27**
Slightly to somewhat desirable			
A brand that I know	2.33	3.00	4.09**
organically grown	4.00	2.39	9.42**
organically certified	3.76	2.50	7.27**
genetically modified	2.32	2.31	0.04

** Indicates statistical significance at the .05 level using paired t-test

*Indicates statistical significance at the .10 level using paired t-test