

An Analysis of Consumer Characteristics Concerning Direct Marketing of Fresh Produce in Delaware: A Case Study

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Direct marketing provides an outlet for farmers to sell their fresh produce directly to consumers, supplying them with a fresh, high quality product, while receiving a higher profit margin than what might be possible through the wholesale market. Consumers see these outlets as a way to get fresher produce usually at a lower cost (Nayga et al., June 1995). The increasing number of direct market outlets for the direct sale of locally grown produce also has a dampening affect on the prices of produce due to the ability to bypass the complex distribution system (Francese 1985). There are four basic types of farmer direct markets in Delaware: 1. Roadside stand or market, a single market outlet for fresh produce; 2. Farmers market, a collection of individual farm operated stands at one location; 3. Tailgate market, several vendors that sell produce from the back of a truck, or table on a seasonal basis; and 4. Pick-your-own farm, customers harvest their own produce from the field or orchard.

In 1981, with the funding from the USDA, the Food and Resource Economics Department at the University of Delaware conducted a mail survey of Delaware consumers about their opinions concerning direct marketing operations in Delaware. Along with consumer tastes and preferences, the industry has matured a great deal since the earlier study, therefore the University has again evaluated this important marketing channel for Delaware produce. The new study was expanded to include additional questions concerning consumer preferences and knowledge of Delaware produced produce as well as additional questions of special interest to the State Department of Agriculture, its promotional programs, and the United States Department of Agriculture.¹

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Objectives

The main objective of the study was to develop a data base of consumer needs and requirements for direct marketing outlets in Delaware and evaluate the application of such data to new direct marketing outlets in the State and elsewhere. Specifically, objectives are: 1. Determine the views of Delaware consumers' concerning direct markets and their products and services within Delaware; 2. Determine what expectations and needs of the consumer must be met to maintain a viable operation and; 3. Evaluate consumer recognition of Delaware produced produce and utilize this information as a basis to make recommendations for improvements to direct market operations within the state and elsewhere.

Procedure

Ten thousand mail surveys were sent in September and October 1995 to Delaware residents randomly selected via a commercially purchased mailing list. The sample was subdivided by counties according to their respective population base related to the state total. A second mailing was then made four to five weeks after the initial mailing. Out of the 10,000 sent, 1205 were returned, a 12% response rate. This paper examines the characteristics of the respondent and their views and attitudes of direct markets in Delaware.

Survey Results

The following results are classified in two sections. The first section describes the demographic characteristics of the survey respondents and the second section summarizes the views, attitudes, and characteristics of the respondents pertaining to direct markets.

Demographics:

Demographic data was collected in order to understand the characteristics of the direct marketing consumer. With this data, future contrasts

and comparisons can be made in order to understand the tastes and preferences of consumers. With respect to age, 47.8% of the respondents were 50 years or older, 17.8% 18-34 years of age, and 34.4% 35 to 49 years old. In terms of gender, 41.1% of the Delaware residents responding were male, and 58.9% were female. Of the 1164 respondents, 91% are White, 4.1% are Black/African American, and 3.4% are Native American (Table 1).

Table 1. Age, Gender, and Race of Survey Respondents, Delaware 1995

Characteristics	Number of Respondents	Percent
Age		
18-34 Years of age	210	17.8
35-49	407	34.4
50-64	316	26.8
65 or older	248	21.0
Total	1181	100.0
Gender		
Male	489	41.1
Female	702	58.9
Total	1191	100.0
Race		
Black/ African American	48	4.1
Hispanic	6	.5
Asian/ Pacific Islanders	8	.7
Native American	40	3.4
White/ Caucasian	1058	91.0
Other	4	.3
Total	1164	100.0

Source: Consumer Survey and Calculations

Respondents exhibited varying education levels with 3.1% of those responding having less than a high-school diploma, 44.9% have a college degree or greater, and 32.6% of the respondents reported having some college experience or a technical degree. Another characteristic is total household gross income, with 47.1% of the households earning between \$35,000-\$75,000, 17.6% earn \$25,000 or less, and 18.9% earn \$75,000 or more (Table 2).

Of the total 1205 responses received, 66.3% were from New Castle County, 16.2% from Kent County, and 17.5% from Sussex County. When asked to describe the area that they live in, 20.1% of the respondents said they were located in a rural area, 52.2% in a suburban area, 12.9% in the city, and 14.8% in a small town (Table 3).

Table 2. Education Level and Gross Income of Survey Respondents, Delaware 1995

Characteristics	Number of Respondents	Percent
Education Level		
Less than High School	37	3.1
High School Diploma	231	19.4
Some College	311	26.2
Technical Degree	76	6.4
College Degree	338	28.5
Post-Graduate Degree	195	16.4
Total	1188	100.0
Total Household Gross Income (\$)		
Less than 5,000	9	.8
5,000-9,999	24	2.2
10,000-14,999	40	3.7
15,000-24,999	117	10.9
25,000-34,999	176	16.4
35,000-49,999	227	21.1
50,000-74,999	279	26.0
75,000-100,000	128	11.9
Above 100,000	76	7.0
Total	1076	100.0

Source: Consumer Mail Survey and Calculations

Table 3. County and Residence Characteristic of Survey Respondents, Delaware 1995

Characteristic	Number of Respondents	Percent
County		
New Castle	799	66.3
Kent	195	16.2
Sussex	211	17.5
Total	1205	100.0
Residence Area		
Rural Area	238	20.1
Suburban Area	617	52.2
City	152	12.9
Small Town	175	14.8
Total	1182	100.0

Source: Consumer Mail Survey and Calculations

Those reporting the age of their spouse, 46% were 31-50 years of age, 19.9% between 51-60, and 17.5% between the age of 61-70 (Table 4). The survey participants were also asked how many "other" people were living in their household, and the ages of these "others." Respondents revealed that 57.4% of the others were children 19 years or younger, and 10.9% were between 20-29. Also, 2.35% of the "other" residents were above the age of 75 (Table 4).

Table 4. Spouse's Age and Others Living in Household, Delaware 1995

Characteristic	Number of Respondents	Percent
Spouse's Age		
20-30 Years of Age	79	8.9
31-40	204	22.9
41-50	206	23.1
51-60	177	19.9
61-70	156	17.5
71-80	53	6.0
81-90	15	1.7
Total	890	100.0
Age of "Others"		
Under 4 Years of Age	226	16.6
5-14	382	28.0
15-19	175	12.8
20-29	149	10.9
30-39	52	3.8
40-49	26	1.9
50-59	20	1.5
60-74	24	1.8
Above 75	32	2.35
Total Number of Other Residents		
No other Residents	278	20.4
Total Number of Respondents	1163	N/A

Source: Consumer Survey and Calculations

Table 5. Occupational Status of Survey Respondents, Delaware 1995

Occupational Status	Number of Respondents	Percent
Managerial & Professional (including Engineers & Doctors)	182	16.1
Health Technologists & Technicians	75	6.7
Teachers	70	6.2
Sales	64	5.7
Administrative Support (including secretarial)	166	14.7
Service	176	15.6
Farming	2	.2
Precision Production, Craft, Repair, Operators, Laborers	72	6.4
Retired	273	24.2
Students	15	1.3
Disabled	4	.4
Self-Employed	22	2.0
Unemployed	6	.5
Total	1127	100.0

Source: Consumer Survey and Calculations

With respect to employment, each participant was asked to identify their profession. The highest percentages were retirees, managerial and professional, service industry employment, and administrative support at 24.2%, 16.1%, 15.6%, and 14.7% respectively (Table 5).

Respondents Views, Attitudes, and Shopping Characteristics:

The following section summarizes the respondents opinions and habits with respect to direct markets in Delaware. The respondents were asked to report how much they spend per visit at the various markets. The distribution had most consumers spending between \$5.00-\$9.99 per visit. There was not much difference in the spending habits between markets, except for the tailgate market, which showed 40.8% of consumers spending less than \$5.00, and at the supermarket where 15.6% spend \$25.00 or more. These supermarket estimates were higher on average than the other markets (Table 6).

Participants were also asked to rate their shopping frequency at direct farm markets. With respect to roadside stands, 16.6% shop weekly, 14.8% every 2 weeks, 15.6% once a month, and 18.6% 6 times a year. Consumers tend to visit farmers' markets less often. In fact 83.1% of the respondents reported visiting farmers' markets once a month or less. Pick-your-own farms were also not as popular with 45.2% of the consumers reporting that they never visit this type of market. Of the 757 respondents, 22.1% replied shopping once a year at this market, and 16.9% twice a year. With respect to tailgate markets, 60.4% of the respondents reported never visiting tailgate markets, and only 8.6% visit the tailgate market more frequently than 6 times a year. The participants were also asked to report their shopping frequency with respect to supermarkets. The results showed that 70.4% shop weekly, 21.0% every two weeks, and 6.0% reported once a month (Table 7).

The respondents were asked to identify the produce items they are most likely to purchase from the various markets. At the roadside stand, 77.8% purchase sweet corn, 68.0% tomatoes, 60.6% cantaloupes, and 57.7% peaches. With respect to farmers' markets, 29.6% purchase toma-

Table 6. Expenditures by Consumers at Market Outlets, Delaware 1995

Purchase Amount	Roadside Stand/Mkt.	Farmers Market	Tailgate Market	Pick-Your-Own Farm	Supermarket
Less than \$5.00	144	99	54	111	140
\$5.00-\$9.99	406	209	131	98	396
\$10.00-\$14.99	282	134	100	50	230
\$15.00-\$19.99	99	73	56	9	114
\$20.00-\$24.99	48	35	25	1	50
\$25.00 or more	25	31	29	3	172
Total	1004	581	395	272	1102

Source: Consumer Survey and Calculations

Table 7. Shopping Frequency of Respondents at Market Outlets, Delaware 1995

Shopping Frequency	Roadside Stand/Mkt.	Farmers Market	Pick-Your-Own Farm	Tailgate Market	Supermarket
	-----Percent-----				
Weekly	16.6	8.7	2.0	2.8	70.4
Every 2 weeks	14.8	8.2	.4	2.1	21.0
Once per month	15.6	15.0	1.6	3.7	6.0
6 times a year	18.6	10.5	3.6	4.0	1.0
4 times a year	12.0	11.2	6.5	6.5	.7
Twice a year	10.1	12.8	16.9	9.9	.2
Once a year	5.7	11.2	22.1	9.8	.1
Never	5.0	21.9	45.2	60.4	.4
Other	1.6	.4	1.8	.7	.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Consumer Survey and Calculations

Table 8. Produce Preference of Survey Respondents, Delaware 1995

Fresh Produce	Market Outlets				
	Roadside Stand/Mkt.	Farmers Market	Pick-Your-Own Farm	Tailgate Market	Supermarket
	-----Percent-----				
Apples	47.7	26.1	13.1	5.7	72.2
Blueberries	21.2	11.3	14.5	2.6	41.2
Cabbage	21.5	14.4	1.7	4.2	56.3
Cantaloupes	60.6	25.2	1.9	9.1	49.8
Sweet Corn	77.8	28.4	5.0	15.1	38.6
Cucumbers	42.3	20.5	2.2	6.6	63.3
Greens	29.7	19.6	2.6	5.0	63.6
Peaches	57.7	23.8	10.7	7.0	44.6
Peppers	41.5	21.3	2.1	6.0	60.8
Potatoes	31.8	20.2	1.2	6.7	76.8
Pumpkins	39.1	10.8	10.1	3.3	15.5
Snap Beans	32.0	15.7	3.4	5.0	36.9
Strawberries	50.6	21.5	28.0	7.8	50.7
Tomatoes	68.0	29.6	5.4	12.2	56.2
Watermelons	50.8	18.1	2.5	7.7	42.1
Other	8.2	4.6	1.7	1.6	9.3

Source: Consumer Survey and calculations

Table 9. Direct Market Information Source of Survey Respondents, Delaware 1995

Source	Roadside Stand/Mkt.	Farmers Market	Pick-Your-Own Farm	Tailgate Market
-----Percent-----				
Word of Mouth	30.5	31.7	23.0	5.9
Passed by on the Road	72.7	20.7	10.4	22.7
Roadside Sign	26.1	11.1	11.0	5.1
Advertisement	7.8	13.2	17.2	1.6
Delaware Farm Market Directory	2.7	2.2	3.4	.3
Other	1.5	2.4	1.3	1.0
Total	N/A	N/A	N/A	N/A

Source: Consumer Mail Survey and Calculations

toes, 28.4% sweet corn, and 26.1% apples. At pick-your-own farms, 28.0% purchase strawberries, 14.5% blueberries, and 13.1% apples. With respect to tailgate markets, 15.1% purchase sweet corn, 12.2% tomatoes, and 9.1% cantaloupes. When visiting the supermarket, 76.8% purchase potatoes, 72.2 % apples, 63.6% greens, and 63.3% cucumbers (Table 8).

The participants were asked to identify how they first learned about the direct market in their area. With respect to the roadside stands, 72.7% said they first learned of their nearest roadside stand by "passing it by on the road," and 30.5% heard by "word of mouth." Results from the farmers market shows that "word of mouth" is the main information source, with 31.7%, and "passing the farmers market on the road" was second with 20.7%. "Word of mouth" is also the main information source for the pick-your-own farm, with 23.0%. The main information source for the tailgate market is by "passing it on the road," in which the response rate is 22.7% (Table 9).

The respondents were asked to indicate the media source which made them aware of the various direct markets and if these sources were enough to convince them to shop. Advertisements in the newspaper tended to be the most remembered and most influential. In fact, 25.6% of respondents said that they have seen advertisements for roadside stands, and an additional 5.5% said that they were convinced to shop at the roadside stand because of the newspaper advertisement. The newspaper is most affective in advertising for the pick-your-own farm, where 28.9% said they have seen an advertise-

ment in the newspaper, and an additional 7.7% said the advertisement convinced them to shop. The radio advertisements were the second most remembered, where 19.3% have heard an advertisement for a farmers market, and an additional 2.1% were convinced to shop at this market. Television was the third, with 6.5% seeing an advertisement for a farmers market (Table 10).

The respondents were asked to rate their reasons for purchasing from the direct markets. "Produce selection" was the most important, with 58.8% replying that selection was very important, and 26.8% replying somewhat important. "Locally grown" was second with 49.0% indicating very important, and 31.5% replying somewhat important. Next was "liked to help farmers" with 30.1% replying very important and 27.4% somewhat important. Graded produce was important with 24.2% replying very important, and 26.3% saying somewhat important. Money back guarantee was also important to consumers with 22.6% replying very important and 18.8% answering somewhat important (Table 11).

When asked whether they have purchased anything on impulse, 82.2% of the respondents answered "yes." Contributing factors to this may include the 65.5% of respondents who stated that their trip to the direct market included family members. When asked if fruits and vegetables were the main reason for their visit to the direct markets, 94.7% replied "yes." Also, 67.8% of the respondents said the direct market was the main reason for their trip. When the participants were asked if they have a pref-

erence for Delaware State Certified Markets, if they were certified, 92.9% said they would have a preference. The participants were asked if they had ever seen or heard about the “Delaware Agricultural Products Logo,” in which 29.1%

said they had. When asked if they would show preference for a product with the logo over a product without the logo, 75.2% said they would show a preference for a product with the logo (Table 12).

Table 10. Advertisements Seen or Heard by Respondents, Delaware 1995

Media Source	Roadside Stand/Mkt.	Farmers Market	Pick-Your-Own Farm	Tailgate Market
-----Percent-----				
Newspaper	25.6	27.9	28.9	2.4
Convinced to Shop	5.5	5.3	7.7	.1
Radio	12.1	19.3	9.4	.7
Convinced to Shop	1.1	2.1	.5	.1
Television	3.5	6.5	3.6	.5
Convinced to Shop	.4	.3	.3	0
Direct Mail	3.1	3.7	3.5	.5
Convinced to Shop	.7	1.0	2.6	0
Flyer placed on Windshield	4.3	2.9	2.1	1.3
Convinced to Shop	.5	.7	0	.1
Delaware Farm Market Dir.	4.3	3.5	4.9	.4
Convinced to Shop	1.1	.4	1.5	0
Other	4.6	2.6	3.1	1.5
Convinced to Shop	.6	.4	.2	.1
Total	N/A	N/A	N/A	N/A

Source: Consumer Mail Survey and Calculations

Table 11. Survey Respondents Reason to Purchase, Delaware 1995

Factor	Very Important	Somewhat Important	Slightly Important	Neutral	Slightly Minor	Somewhat Minor	Very Minor
-----Percent-----							
Farm Like Atmosphere	8.5	16.9	15.0	32.1	3.2	4.1	20.1
Money Back Guarantee	22.6	18.8	15.0	21.7	3.7	4.8	13.3
Graded Produce	24.2	26.3	16.0	20.1	4.3	3.0	6.0
Express Checkout	12.2	15.4	17.3	27.7	6.0	4.8	16.6
Refrigerated Displays	17.6	21.6	16.4	24.1	5.3	4.8	10.2
Locally Grown	49.0	31.5	9.8	6.2	.7	1.0	1.7
Organically Grown	15.8	19.9	15.6	26.6	4.2	5.0	12.9
Special Events	2.4	5.5	8.2	24.6	3.8	5.1	50.4
Advertised Special	10.2	17.9	19.0	22.3	5.3	4.1	21.2
Like To Help Farmers	30.1	27.4	15.6	16.4	1.4	1.4	7.5
Canning or Freezing	11.4	11.6	10.2	22.8	4.6	6.3	33.1
Produce Selection	58.8	26.8	8.1	3.9	.7	.2	1.4
Other	88.9	8.3	2.8	0	0	0	0

Source: Consumer Mail Survey and Calculations

Table 12. Visiting Characteristics of Survey Respondents, Delaware 1995

Characteristics	Yes	No
	-----Percent-----	
Impulse Purchase at Direct Market	82.2	17.8
Does Trip Include Family Members	65.5	34.7
Does Trip Include Friends	26.4	73.6
Fruits and Vegetables Main Reason for Trip	94.7	5.3
Would You Shop if State Certified	92.9	7.1
Are Visits to Direct Market Main Reason for Visit	67.8	32.2
Have Seen State Logo on Produce	29.1	70.9
Preference Toward Products With State Logo Over Those Without	75.2	8.5

Source: Consumer Survey and Calculations

Respondents were asked to identify what geographical areas they would consider applicable to define "locally grown fresh produce." Of the 1205 respondents, 83.2% replied Delaware, 48.3% replied Delmarva, 42.5% replied Southern New Jersey, and 33.9% answered Southern Pennsylvania (Table 13).

Table 13. Respondent's Definition of "Locally Grown Produce," Delaware 1995

Region	Percent
Delaware	83.2
Delmarva	48.3
Southern New Jersey	42.5
Southern Pennsylvania	33.9
Other	5.3

Source: Consumer Survey and Calculations

Consumers were asked whether they had a preference of times for the direct markets to be open. Of the 1205 who answered, 37.3% said all day, 25.9% did not have a preference, and 14.4% replied evenings. With respect to weekly preferences, 38.4% said they would like to see the market open all week, 25.6% replied weekends, and 19.6% did not have a preference. Seasonal preferences were also asked, in which 48.6% answered all year, 15.4% did not have a preference, and 13.8% replied spring and fall (Table 14).

Participants were asked to identify the TV and radio stations for which advertisements for direct markets were seen or heard. With respect to television, 16.2% identified WBOC, 6.3% Cable Adnet, and 4.9% WMDT. When asked about radio, 9.9% identified WDSB, 7.0% WJBR, and 6.5% replied WSTW (Table 15).

Table 14. Preferred Times For Direct Markets To Be Open, Delaware 1995

Times	Time Preference	Percent
Time of Day:	Mornings	11.4
	Afternoons	9.3
	Evenings	14.4
	All Day	37.3
	No Preference	25.9
Days of Week:	Weekends	25.6
	Weekdays	7.0
	All Week	38.4
	No Preference	19.6
Seasons of Year:	Spring & Summer	11.4
	Summer & Fall	11.8
	Spring & Fall	13.8
	All Year	48.6
	No Preference	15.4

Source: Consumer Mail Survey and Calculations

Table 15. Respondents Heard or Seen Advertisements on TV or Radio for Delaware Produce, Delaware 1995

Station	Number of Respondents	Percent
<i>Television</i>		
WBOC	195	16.2
Cable Adnet	76	6.3
WMDT	59	4.9
<i>Radio</i>		
Eagle 97.7	41	3.4
Starr 92.9	22	1.8
WJBR 99.5	84	7.0
WDSB 94.7	115	9.5
WSTW 93.7	78	6.5

Source: Consumer Mail Survey and Calculations

Respondents were asked to rate how many times they were disappointed by produce purchased at a direct market. Of the 1205 respondents, 5.0% said often, 78.0% replied seldom, and 16.9% said they have never been disappointed (Table 16). If the respondent answered often or seldom, they were then asked to identify the problem area. For fruits, 45.5% answered poor flavor, 44.3% bruised, and 25.4% fruit was not fresh. With respect to vegetables, 36.3% replied not fresh, 29.8% poor flavor, and 19.0% replied that vegetables were bruised (Table 17).

Respondents were asked to compare prices of produce bought directly, to prices at the grocery store. The results show that 49.5% believe that buying directly was cheaper, 21.4% stated the prices were the same, and 16.0% believed they were higher. The participants were then asked to compare the quality of Delaware's produce to that of other states. Of the 1166 respondents, 39.4%

believed the quality is the same, 36.6% Delaware's quality is higher, 1.0% believe its lower, and 23.0% are unsure (Table 18).

Summary and Conclusions

Demographically, 91% of the respondents were white, 59% women, and 47% reporting an annual household income between \$35,000-\$75,000. With respect to location, 66.3% were from New Castle County, 16.2% from Kent County, and 17.5% from Sussex County. The majority of the respondents live in a suburban community. The respondents visit the roadside stands more often than the other direct marketing outlets. On average, for each trip to the direct marketing outlet, the respondent spends between \$5.00 and \$10.00. Consumers tend to prefer sweet corn, tomatoes, cantaloupes, and apples over the other produce items.

Table 16. Respondent Disappointed by Produce Purchased at Direct Market, Delaware 1995

Total # of Respondents	Often		Seldom		Never	
	N	Percent	N	Percent	N	Percent
1205	58	5.0	898	78.0	195	16.9

Source: Consumer survey and calculations
N = Number of Respondents

Table 17. If Respondent Answered Often or Seldom, Why Were They Disappointed, Delaware 1995

Produce Item	-----Problem Area-----									
	Appearance		Poor Flavor		Bruised		Not Fresh		Other	
	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
Fruits	125	13.0	436	45.5	425	44.3	243	25.4	96	10.0
Vegetables	152	15.8	285	29.8	182	19.0	348	36.3	107	11.2

Source: Consumer survey and calculations
N = Number of Respondents

Table 18. Quality and Price Comparisons of Delaware Produce, Delaware 1995

Statement	-----Response-----				N
	Higher	The Same	Lower	Unsure	
	-----Percent-----				
Produce Purchased Directly From Farmers Compared to Prices at Grocery Store	16.0	21.4	49.5	13.1	1163
Quality of Delaware's Produce Versus Quality From Other States	36.6	39.4	1.0	23.0	1166

Source: Consumer Mail Survey and Calculations

Respondents became aware of the different direct marketing outlets by either passing it on the road, or by word of mouth. With respect to the media, advertisements in the newspaper and radio work the best in informing consumers of the different outlets. The respondents tend to hear more advertisements on the television station WBOC, and the radio station WDSD than the other stations listed in the survey.

Produce selection, locally grown, and "like to help farmers," are the main reasons for which consumers visit the direct marketing outlets. The respondents also prefer that the markets stay open during the weekends. As far as being disappointed with the markets, 78% of the respondents say they are seldomly disappointed, and if they are, its because the fruits are bruised or have poor flavor,

and the vegetables are not fresh. Many of the respondents reported purchasing items on impulse. This may be due to the fact that 65.5% of the respondents stated that many of their trips include family members. Only 29.1% have seen the state logo on produce items, but replied that if they had seen it, they would show preference towards those items.

References

- Francese, Peter. "Farming as a Business Is on Shaky Ground." *Advertising Age*. v56n14., p. 34. February 21, 1985.
- Nayga Jr., R.M. , R. Govindasamy, T.C. Wall, and D.W. Thatch, "Characteristics of Farmer-to-Consumer Direct Market Customers in New Jersey," New Jersey Agricultural Experiment Station Publication No. P-02136-3-95, Rutgers University, June 1995.
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