CONSUMER ACCEPTANCE AND PREFERENCE FOR DIRECT MARKETING IN THE NORTHEAST

by

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The study is a comparison of consumer preferences of direct markets in selected states. Quality was the dominant factor in the selection of a direct market.

Introduction

There has been a renewed interest in direct marketing as an alternative for selling fresh produce. The direct market operation can range from a simple roadside stand to an elaborate, permanent structure with refrigeration facilities. Some states have developed systems of market certification and associations of direct market operators.

While direct marketing will never replace supermarkets, it is considered a viable alternative for marketing fresh produce.[1] In this study, consumer attitudes toward different types of direct marketing were examined.

In recent years, there have been increasing amounts of research on small scale farm production and the viability of direct market outlets.[2] If the direct marketing system is to become a viable outlet for the small scale farmer, it must cater to consumer preferences.[3]

Objective

To determine consumer purchasing patterns and preferences as related to direct markets.

Procedures

This study was a joint effort among the Maine, Delaware and West Virginia Agricultural Experiment Stations and

was funded by the Agricultural Research Service, USDA. In each of the states involved, 5,000 households were randomly selected from telephone directories and mailed a detailed common questionnaire. The types of markets considered on each questionnaire were roadside stands, tailgate markets, farmers' markets, and pick-your-own operations. A repeat mailing was conducted three weeks later. There were 936, 811 and 628 useable responses from Maine, West Virginia and Delaware, respectively. The responses were statistically compared among states using either a chi square test or ANOVA.

Analysis of Data

Consumers in all three states indicated quality to be of primary importance in their produce purchasing decisions (Table 1).

Respondents in each state indicated that quality was the most important factor in their produce purchasing decisions. The respondents in each state were very consistent as to other reasons influencing their purchasing decisions. Appearance and price were of second and third importance, respectively. Significant differences were evident among states as to the importance of individual factors. Quality was indicated to be very important by a larger percentage of respondents in Delaware (89.5%) than West Virginia (86.0%) or Maine (84.9%). Appearance was most important to West Virginia respondents with 73.6 percent of them indicating it to be very important. In contrast, 70.9 percent of Delaware respondents and only 65 percent of Maine respondents indicated it as very important. There were no significant differences as to how the respondents in the three states considered price. Where the product was grown wasn't as important to consumers as the other factors mentioned. However, among the states, it was significantly more important in Maine.

The respondents in the three states were also consistent in how they rated the quality of produce purchased in both grocery stores and direct markets (Table 2).

Over 96, 91 and 95 percent of the respondents in Maine, West Virginia, and Delaware, respectively perceived quality to be either good or excellent in direct markets. However, a larger percentage of Maine respondents (60.9%) considered the quality to be excellent as compared to West Virginia (40.5%) and Delaware (47.9%) respondents. With respect to the quality of produce in grocery stores, only 6 to 7 percent of respondents considered it excellent in each state. In general, respondents rated grocery store produce quality as either fair or good.

The respondents in the three states were also questioned as to their view of prices of produce purchased at direct markets as compared to grocery stores. Over 79 percent of Maine respondents and 87 and 84 percent of West Virginia and Delaware respondents, respectively, indicated they considered prices at direct markets to be the same or lower than grocery stores (Table 3). However, some significant differences did exist among the states. A larger percentage of West Virginia respondents (55.1%) as compared to Delaware (52.8%) and Maine (49.3%) respondents considered prices lower at direct markets. There may be some potential for direct market price increases.

The average number of visits to each type of direct market in 1981, of those respondents using any type of direct market, varied with respect to type of direct market and by state. Delaware respondents averaged significantly more visits to roadside stands (14.68) than Maine (10.43) or West Virginia (7.29) respondents (Table 4). Delaware respondents also averaged significantly

TABLE 1. How Respondents in Various States Rate the Importance of Produce Characteristics in Purchasing Decisions

Produce Characteristics	States		
	Maine	West Virginia	Delaware
	- Percent -		
Appearance[1]			
Not Important	1.0	1.0	.5
Fairly Important	3.8	4.4	3.6
Important	30.2	21.0	25.1
Very Important	65.0	73.6	70.9
Where Grown[2]			
Not Important	26.6	33.7	36.1
Fairly Important	30.1	30.8	35.6
Important	25.8	22.6	20.0
Very Important	17.6	12.9	8.2
Quality[3]			
Not Important	0.3	0.5	0.0
Fairly Important	1.5	0.5	0.5
Important	13.2	13.0	10.0
Very Important	84.9	86.0	89.5
Price[4]			
Not Important	1.4	1.9	1.3
Fairly Important	10.2	7.7	7.7
Important	30.6	27.5	31.0
Very Important	57.7	62.8	60.0

[1] $X^2 = 20.61899$, d.f. = 6; significant at .05 level.
[2] $X^2 = 43.95979$, d.f. = 6; significant at .05 level.
[3] $X^2 = 14.30717$, d.f. = 6; significant at .05 level.
[4] $X^2 = 8.57658$, d.f. = 6; not significant.

more visits to farmers' markets (11.78) than either Maine (7.91) or West Virginia (9.60) respondents.

The respondents were questioned as to the average number of direct markets they considered accessible and as to what their average round trip mileage was to the various direct markets (Tables 5 and 6). Delaware respondents indicated on average as having more accessible direct markets of all types other than farmers' markets. In general, respondents indicated that there was not an over-abundance of easily accessible direct markets. The average number of easily accessible direct markets ranged from 1.16 farmers' markets in West Virginia to 3.05 roadside stands in Delaware.

TABLE 2. How Respondents in Various States Rate the Quality of Produce Purchased From Direct Markets and Grocery Stores

Markets and Ratings	States		
	Maine	West Virginia	Delaware
	- Percent -		
Direct Market[1]			
Poor	0.5	1.3	0.0
Fair	2.6	7.0	4.4
Good	35.9	51.1	47.7
Excellent	60.9	40.5	47.9
Grocery Stores[2]			
Poor	3.5	5.5	4.1
Fair	39.0	42.3	39.4
Good	50.7	45.9	50.2
Excellent	6.8	6.2	6.2

[1] $X^2 = 73.69846$, d.f. = 6; significant at .05 level.

[2] $X^2 = 7.52261$, d.f. = 6; not significant.

TABLE 3. How Consumers of Various States View the Prices of Produce Purchased at Direct Markets Compared with Those in Grocery Stores

Category	States		
	Maine	West Virginia	Delaware
	- Percent -		
About the Same	30.3	32.5	31.5
Higher	15.7	8.0	12.2
Lower	49.3	55.1	52.8
Don't Know	4.7	4.4	3.5

$X^2 = 19.99162$, d.f. = 8; significant at .05 level.

The average round trip distance respondents indicated traveling varied considerably among types of direct markets and states. In all three states, round trip mileage was lowest to roadside stands and the furthest to pick-your-own operations. Delaware respondents traveled significantly further to roadside stands, 4.30 miles, as compared to 3.75 and 2.56 miles for Maine and West Virginia respondents, respectively. The average round trip mileage to tailgate markets ranged from 7.56 miles in West Virginia to

TABLE 4. Average Number of Times Respondents From Various States Visited Each Type of Direct Market in 1981

Type of Market	States		
	Maine	West Virginia	Delaware
	- Average number of visits -		
Roadside Stands[1]	10.43	7.29	14.68
Tailgate Markets[2]	3.97	5.66	6.07
Farmers' Markets[3]	7.91	9.60	11.78
Pick-Your-Own Farms[4]	2.84	2.52	4.27

[1] $F = 44.432$, d.f. = 2; significant at .05 level.
[2] $F = 6.771$, d.f. = 2; significant at .05 level.
[3] $F = 9.947$, d.f. = 2; significant at .05 level.
[4] $F = 5.911$, d.f. = 2; significant at .05 level.

TABLE 5. Average Number of Direct Markets Easily Accessible By Respondents of the Various States

Type of Market	States		
	Maine	West Virginia	Delaware
	- Average number in area -		
Roadside Stands[1]	2.53	1.91	3.05
Tailgate Markets[2]	1.34	1.82	2.03
Farmers' Markets[3]	1.38	1.16	1.31
Pick-Your-Own[4]	1.82	1.30	2.32

[1] $F = 34.533$, d.f. = 2; significant at .05 level.
[2] $F = 3.706$, d.f. = 2; significant at .05 level.
[3] $F = 4.193$, d.f. = 2; significant at .05 level.
[4] $F = 17.100$, d.f. = 2; significant at .05 level.

TABLE 6. Average Round Trip Mileage from Respondents' Home to the Preferred Direct Market, by State

Type of Market	States		
	Maine	West Virginia	Delaware
	- Average round trip mileage -		
Roadside Stand[1]	3.75	2.56	4.30
Tailgate Markets[2]	8.77	7.56	7.98
Farmers' Markets[3]	11.20	14.61	11.35
Pick-Your-Own[4]	16.87	26.92	16.82

[1] $F = 6.880$, d.f. = 2; significant at .05 level.
[2] $F = .401$, d.f. = 2; not significant.
[3] $F = 4.493$, d.f. = 2; significant at .05 level.
[4] $F = 12.225$, d.f. = 2; significant at .05 level.

8.77 miles in Maine. West Virginia respondents traveled the furthest, 14.61 miles to farmers' markets as compared to 11.20 miles in Maine and 11.35 in Delaware. West Virginia respondents also traveled the furthest to pick-your-own operations, with an average of 26.92 miles as compared to 16.87 and 16.82 miles in Maine and Delaware, respectively.

The respondents were asked to indicate their total expenditures in 1981 at direct markets. The expenditures were significantly different among the states. Delaware respondents had the highest expenditures, 95.98 dollars, as compared to 80.82 and 54.76 dollars in Maine and West Virginia, respectively.

In all three states for all types of direct markets, good prices or product quality were indicated as the predominate reasons for shopping at direct markets (Table 7). Product quality was of greater or approximately equal importance to good prices in all markets other than the pick-your-own operations. The percentage of respondents indicating produce quality as being of importance in their shopping at direct markets ranged from a low of 68.6 percent for West Virginia with respect to tailgate markets, to a high of 85.4 percent for Delaware, with respect to roadside markets. The percentage of respondents indicating food prices as being of importance ranged from a low of 55.6 percent for Maine respondents with respect to roadside stands, to a high of 89.5 percent for Delaware respondents with respect to pick-your-own operations.

The respondents were also questioned with respect to any reasons for not shopping at the particular direct markets. In this case there was greater variation by states (Table 8). However, in all states, inconvenience or none nearby were major reasons for not shopping at these markets. Except for roadside stands in Delaware, these two reasons were cited by more than 60 percent of the consumers. In Delaware,

TABLE 7. Percentage of Respondents From Various States Responding to the Importance of Selected Reasons for Shopping at Direct Markets[1]

Category	States		
	Maine	West Virginia	Delaware
	- Percent -		
Roadside Stands			
Good Prices	55.6	66.2	59.9
Product Quality	84.8	70.9	85.4
Nice Atmosphere	28.5	20.0	23.8
Convenience	36.8	45.1	49.8
Like to Help Farmers	43.9	40.4	30.0
Good Variety and Volume	35.3	23.3	40.3
Tailgate Markets			
Good Prices	59.9	69.6	69.8
Product Quality	70.7	68.6	67.4
Nice Atmosphere	18.0	17.0	13.2
Convenience	38.9	40.2	35.7
Like to Help Farmers	50.3	42.3	31.0
Good Variety and Volume	19.2	20.1	18.6
Farmers' Markets			
Good Prices	64.8	61.8	67.8
Product Quality	84.4	76.7	75.0
Nice Atmosphere	38.0	38.8	27.4
Convenience	32.9	57.3	31.7
Like to Help Farmers	54.2	44.8	29.8
Good Variety and Volume	48.1	51.6	54.8
Pick-Your-Own			
Good Prices	82.5	85.0	89.5
Product Quality	70.9	69.0	78.1
Nice Atmosphere	29.5	31.0	27.2
Convenience	13.7	10.6	16.7
Like to Help Farmers	31.2	24.8	29.4
Good Variety and Volume	21.9	27.4	30.3

[1]Percentages sum to more than 100% due to multiple responses.

high prices were of greater importance in keeping customers away from roadside stands.

Summary and Conclusion

There is considerable consistency in the results among the respondents from the three states involved in this study. The respondents were extremely quality conscious, considering it of primary importance in their purchasing of produce. In each state, the respondents considered direct market produce quality to be superior to grocery store quality. In addition,

TABLE 8. The Percentage of Respondents[1] Indicating Reasons for Not Shopping at Direct Markets, By States

Types of Markets & Reasons	States		
	Maine	West Virginia	Delaware
	- Percent -		
Roadside Stands			
High Prices	28.5	19.4	35.8
Poor Quality	4.5	6.3	11.5
Limited Variety and Volume	20.9	23.0	18.6
None Nearby	26.1	42.8	14.9
Inconvenient	35.4	29.7	34.5
Not Sanitary	2.9	7.2	7.8
Bad Atmosphere	2.7	5.2	3.7
Don't Accept Food Stamps or Check	6.9	6.5	10.1
Tailgate Markets			
High Prices	12.0	10.2	14.1
Poor Quality	7.4	8.9	7.9
Limited Variety and Volume	21.7	29.8	26.6
None Nearby	43.0	43.2	41.9
Inconvenient	26.6	21.8	28.6
Not Sanitary	6.4	7.7	9.5
Bad Atmosphere	6.4	7.9	6.6
Don't Accept Food Stamps or Check	4.1	6.5	6.2
Farmers' Markets			
High Prices	17.6	21.0	18.5
Poor Quality	4.3	6.2	11.6
Limited Variety and Volume	10.7	14.5	3.6
None Nearby	35.5	41.4	28.5
Inconvenient	41.1	34.0	38.6
Not Sanitary	2.1	2.1	16.1
Bad Atmosphere	2.4	3.8	18.1
Don't Accept Food Stamps or Check	4.3	6.0	7.2
Pick-Your-Own			
High Prices	5.7	2.8	8.3
Poor Quality	1.2	0.8	2.9
Limited Variety and Volume	10.0	6.2	6.8
None Nearby	43.2	69.9	41.5
Inconvenient	42.0	33.1	62.4
Not Sanitary	0.9	1.7	0.5
Bad Atmosphere	1.2	1.4	2.0
Don't Accept Food Stamps or Check	4.8	3.1	5.4

[1]Percentages sum to more than 100% due to multiple responses.

they generally considered direct market prices to be the same or lower than grocery store prices. When asked why they shopped at direct markets, product quality and good prices dominated the responses.

The respondents indicated having traveled relatively long distances to direct markets and having few easily accessible direct markets. When specifically asked why they had not shopped or had limited their shopping at direct markets, they cited none nearby or inconvenience as the dominate reasons. Other reasons cited which were more specific to type of market are high prices at roadside markets and limited variety and volume at tailgate markets.

In general, the respondents in this study were pleased with direct markets. It appears that direct market viability is primarily dependent on convenient location and the provision of a quality product.[4] In addition, the direct market operator must be extremely conscious of his pricing structure.

Footnotes

[1]Henderson, Peter L. and Harold R. Linstrom, "Farmer-to-Consumer Direct Marketing, Selected States, 1970-80," USDA, Statistical Bulletin No. 681, February, 1982.

[2]Kerr, Howard W., Jr., "A Survey of Current and Expected Research Needs of Small Farms in the Northeastern Region," Agricultural Research Results, ARR-NE-9, June, 1980, USDA, Science and Education Administration.

[3]Martin, Michael and Alan S. Kezis, "Consumer Acceptance, Use and Opinions About the Portland Farmer's Market," Department of Agricultural and Resource Economics, LSA Experiment Station, University of Maine at Orono, ARE 361, December, 1983.

[4]Branson, Robert E., Dean Ethridge, Dan Martinez, and James McGrann, "Farmer to Consumer Direct Marketing of East Texas Fruits and Vegetables," Texas Agricultural Market Research & Development Center, Research Report MRC 81-1, December, 1981.