8-1983

B796: A Comparison of Direct Market Users and Nonusers Habits, Acceptance, and Preferences for Direct Marketed Small Farms Horticulture Commodities

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ISSN 0743-9548

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Experiment Station Bulletin 796 August 1983

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Acknowledgment

The authors gratefully acknowledge Florence Bubar for her assistance in the preparation of this manuscript.

The research project was supported through funds made available by the Agricultural Research Service, USDA, and the Hatch Act.

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A Comparison of Direct Market User and Nonuser Habits, Acceptance, and Preferences for Direct Marketed Small Farms Horticultural Commodities

Neil C. Buitenhuys, F. Richard King,
Alan S. Kezis, and
*Howard W. Kerr, Jr.**

INTRODUCTION

Until recently small scale farming has been considered inefficient and undesirable. Small farmers have found it difficult to compete with large operators in the market place because of their inability to provide a significant quantity of product over an extended period of time to meet the needs of large scale marketing firms. In past years, large commercial farmers have moved to higher levels of management sophistication and use of modern production technology. The market system also has become more sophisticated because of mass marketing of agricultural products, monocultural production techniques and highly advanced assembly and distribution systems.

According to the 1978 Census of Agriculture small farms, those with sales under $40,000, account for nearly 76 percent of the farms in Maine. Therefore, a market system has developed which is not amenable to the small farmer who represents a significant segment of Northeast agriculture.

Though the formal marketing system has become relatively inaccessable to the small farmer, changes in the American consumer's preferences offer the small farmer hope. In the late 1960s and through the 1970s it became evident that food buying behavior of consumers across the nation was changing. Food buying clubs and consumer cooperatives began to emerge as food prices increased. It also appeared that consumer food preferences changed, with quality factors such as freshness and taste, growing methods and packaging, and nutrition becoming important to more people. In response, direct market outlets have increased in number and

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apparent popularity. Direct sales from the small farmer to the consumer are an important opportunity for the small farmer in his struggle for economic viability. It is important for the small farmer to take maximum advantage of this opportunity.

In recent years there have been increasing amounts of research on small farm production and increasing discussion regarding the viability of direct market outlets. However, the most important segment of this marketing system, the consumer, has been ignored. If the direct marketing system is to become truly viable for the small farmer, it must cater to consumer preferences and gain further consumer acceptance. It is essential that consumers' preferences be specifically determined.

The types of direct market outlets vary greatly from tailgate markets in certain locations to farmers' markets to elaborate roadside stands. Especially in Maine, where access to commercial market channels and grocery stores is sometimes limited, direct marketing may be a viable alternative for producers of fruits and vegetables. The purpose of this study was to determine the attitudes of consumers toward various types of direct markets. It assesses differences between users and nonusers of direct markets. Knowledge of preferences and buying habits of present and potential customers of direct markets should enable operators of these markets to adjust their operations so as to better meet the needs of customers. The results contained in this publication together with other published results from this study can be used to increase the viability of direct market outlets in Maine [1, 2].

Objective and Procedure

The major objective was to determine direct market users and nonusers habits, levels of acceptance, and preferences for direct marketed small farm horticultural commodities in Maine. In the late fall of 1981 five thousand households were randomly selected from telephone directories and mailed a detailed questionnaire. A repeat mailing was conducted three weeks later. Nine hundred and thirty-seven households provided useable data. The data obtained were analyzed using the Statistical Packages for the Social Sciences software package.

Definitions

In this survey, the four types of direct marketing outlets were defined as:

1. *Roadside Stand* — a single market outlet for fresh produce,
2. *Tailgate Market* — a pickup truck from which fresh produce is sold,
3. *Farmers' Market* — a collection of roadside stands at one location generally operated independently,
4. *Pick-Your-Own-Farms* — farms where consumers supply the labor in harvesting fresh produce.

A nonuser was defined as someone who had not used any of the various types of direct markets in 1981.

Produce Buying Habits of Users and Nonusers of Direct Markets

Respondents were asked to indicate the various sources from which they obtained produce. Both users and nonusers of direct markets indicated over 40 percent of the produce consumed by their family came from the store. The next most frequently listed source was the respondents' own garden. For users direct purchase from farmers was next with about 16 percent purchased from this source. Nonusers, however, indicated a friend's garden at about 6 percent as the third most frequently used source.

The average weekly expenditures on produce during the growing season and during the off season are given for users and nonusers in Table 1. The differences between users and nonusers average expenditures are not statistically significant.

Table 1
Average Total Weekly Expenditures on Produce by User and Nonuser, Maine, 1981

	User		Nonuser	
	Number	Dollars	Number	Dollars
June-October	458	16.61	176	15.53
November-May	457	18.00	181	13.36

June-October, F = 0.14; not significant.
November-May, F = 2.495; not significant.

A majority of both users and nonusers of direct market outlets prepared a shopping list prior to buying produce (Table 2). Significantly more nonusers prepare a shopping list.

Table 2
Preparation of a Shopping List by
Users and Nonusers, Maine, 1981

Response	Users	Nonusers
	-----------Percentage------------	
Yes	58.4	68.3
No	41.6	31.7

Chi-square = 7.30; significant at 99 percent level.

Overall, both users and nonusers tended to rate the quality of produce from direct markets higher than that purchased from grocery stores. Ninety-eight percent of the users and ninety-five percent of the nonusers indicated quality ratings in the top two categories for direct markets. Only fifty-six percent of the users and sixty-two percent of the nonusers gave the same high ratings to produce purchased from grocery stores. Tables 3 and 4 give the ratings. Users rated the quality of produce from direct markets significantly higher than nonusers.

Table 3
Quality Ratings of Fresh Fruits and Vegetables Purchased
from Direct Markets, Users and Nonusers, Maine, 1981

	Poor 1	2	3	Excellent 4
	----------------	Percentage	----------------	
Users	0.3	2.1	33.2	64.4
Nonusers	1.1	4.5	45.3	49.2

Chi-square = 15.55; significant at 99 percent level.

Table 4

Quality Ratings of Fresh Fruits and Vegetables Purchased from a Grocery Store, Users and Nonusers, Maine, 1981

	Poor 1	2	3	Excellent 4
	Percentage			
User	3.6	40.7	50.5	5.2
Nonuser	3.6	34.8	51.0	10.7

Chi-square = 9.53; significant at the 95 percent level.

The characteristics considered most important when purchasing fresh produce were the same for both users and nonusers responding (Table 5). Quality was considered the most important factor with appearance and price next. Where the product was grown was a distant fourth.

Table 5

Importance of Certain Characteristics in Choice of Type and Quantity of Fresh Fruits and Vegetables Purchased, Maine, 1981

Characteristics	Degree of Importance: Not Important	Somewhat Important	Important	Very Important
	Percentage			
User				
Quality	0.3	1.9	12.1	85.8
Appearance	1.2	4.2	30.7	63.8
Price	1.7	10.6	32.6	55.1
Where grown	23.6	30.7	28.3	17.5
Nonuser				
Quality	0.4	0.8	16.1	82.8
Appearance	0.4	2.7	28.8	68.1
Price	0.8	9.2	25.8	64.2
Where grown	34.2	28.8	19.3	17.7

Respondents were also asked to indicate their opinion as to the comparative quality of Maine grown versus out-of-state produce. Table 6 indicates that 80 percent of the users and 69 percent of the nonusers of direct market outlets felt the quality of Maine grown produce was about the same or better than that grown out of state.

Table 6

Quality Comparison of Fruits and Vegetables Grown in Maine Compared to Those of the Same Kind from Out-of-State, Maine, 1981

Comparison	User	Nonuser
	-----------Percentage-----------	
About the same	31.5	38.6
Better	48.8	29.9
Worse	3.7	5.1
Can't compare	7.6	9.8
Don't know	8.3	16.5

Chi-square = 31.22; significant at 99 percent level.

The same fresh fruits and vegetables were cited as most frequently purchased by both users and nonusers of direct markets. The number and percentage of users and nonusers are given in Table 7 for the four most frequently purchased fruits and vegetables.

Table 7
The Most Frequently Bought Fruits and Vegetables, Maine, 1981

Fruits	Number	Per-cent	Vegetables	Number	Per-cent
User					
Apples	341	58.9	Lettuce	373	64.4
Citrus Fruits	320	55.3	Tomatoes	295	50.9
Bananas	260	44.9	Carrots	214	37.0
Pears & Plums	59	10.2	Potatoes	150	25.9
Nonusers					
Apples	140	62.5	Lettuce	138	61.6
Citrus Fruits	116	51.8	Tomatoes	102	45.5
Bananas	111	49.6	Carrots	85	37.9
Pears & Plums	23	10.3	Potatoes	48	21.4

Users were asked to indicate reasons for shopping at four types of direct market outlets. Quality of produce and good prices were the reasons most frequently cited (Table 8). A majority of respondents gave these two reasons for all types of markets. A good variety and volume, and convenience were also reasons often cited as important.

Table 8
Reasons Given by Users for Shopping
at Direct Markets, Maine, 1981

Reasons	Type of Market: Roadside Stands	Tailgate Markets	Farmers' Markets	Pick-Your-Own
	-----	-----	Percentage	-----
Good prices	55.6	59.3	65.1	82.7
Quality of produce	84.8	70.4	84.2	70.6
Nice atmosphere	28.8	18.5	38.5	29.4
Convenience	36.6	39.5	32.5	13.8
Like to help farmers	44.0	50.0	54.5	30.8
Good variety and volume	35.8	19.1	48.4	22.1
Other	6.7	9.3	5.7	6.2

Respondents were asked to indicate undesirable characteristics or reasons why they did not buy at specific types of direct markets. The results are summarized in Table 9. There was considerable variation by type of direct market for both users and nonusers. It is interesting to note that inconvenience and lack of knowledge of nearby markets are important reasons cited for not patronizing direct markets. More specifically, lack of knowledge of nearby markets was a key factor more frequently listed by nonusers.

Table 9

Reasons for Not Buying Produce at Specific Types of Direct Markets or Characteristics, Maine, 1981

	Roadside Stands		Tailgate Markets		Farmers' Markets		Pick-Your-Own	
Reasons	User	Non-user	User	Non-user	User	Non-user	User	Non-user
	Percentage							
Prices too high	33.5	22.2	12.8	11.0	21.1	13.0	6.8	4.5
Quality is poor	5.6	3.0	8.8	5.5	3.3	5.6	0.6	1.9
Limited variety and volume	27.9	12.1	29.1	11.6	14.1	6.2	15.3	3.9
Don't know of any nearby	16.7	37.9	37.4	50.6	28.2	45.1	32.2	55.8
Too inconvenient	31.9	39.9	22.0	32.9	40.8	41.4	43.5	40.3
Unsanitary	3.2	2.5	8.4	3.7	1.9	2.5	1.1	0.6
Don't like the atmosphere	2.0	3.5	7.9	4.3	2.3	2.5	1.7	0.6
Don't accept checks or food stamps	7.6	6.1	4.4	3.7	5.2	3.1	6.2	3.2
Other	11.2	6.1	10.1	7.3	11.7	7.4	14.1	7.1

When asked to suggest changes that would increase patronage, 25 percent of the users cited lower prices most often while nonusers continually indicated more variety and volume of produce to be available with 48 percent giving this reason (Table 10).

Table 10

Changes Suggested by Users and Nonusers to Increase Patronage, Maine, 1981

Changes	Percent
User	
Lower prices	24.9
More variety and volume	21.8
Better location	18.7
Advertise	15.6
Better quality	12.0
Nonuser	
Lower prices	14.7
More variety and volume	48.0
Better location	10.8
Advertise	13.7
Easier access	8.8

In all cases, when respondents were asked to indicate direct markets in their area, users were significantly more aware of all four types of direct markets. They were able to indicate more of all types of direct markets as being in the area.

Users and nonusers were asked to indicate how they obtained information on the location of direct markets. The most frequently cited sources of information were passing the market on the road, word of mouth and advertisements (Table 11).

Table 11
How Users and Nonusers Obtained Information on Location of Direct Markets, Maine, 1981

Categories	Roadside Stands	Tailgate Markets	Farmers' Markets	Pick-Your-Own
	Types of Markets			
	Percentage			
User				
Word of mouth	26.4	15.7	38.1	55.3
Passed on road	82.5	68.2	36.8	19.0
Roadside sign	28.0	11.3	13.9	12.7
Advertisement	9.5	8.4	45.4	43.9
Don't know of any	1.8	12.4	5.0	6.3
Other	0.9	0.4	2.5	1.1
Nonuser				
Word of mouth	16.0	7.0	29.1	32.8
Passed on road	76.1	58.3	34.8	22.7
Roadside sign	28.2	13.0	12.7	10.2
Advertisement	7.4	3.5	30.4	34.4
Don't know of any	11.2	33.0	18.4	30.5
Other	0.5	0.9	0.6	0.8

In an effort to determine the most effective type of advertisements, respondents were asked where they saw or heard advertisements for direct markets. Both users and nonusers most frequently cited newspapers. Ninety-one percent of the users and eighty-eight percent of the nonusers indicated this source. The second most frequently cited type of advertisements was radio with 30 percent of the users and 34 percent of the nonusers checking that they had heard advertisements for direct markets on the radio (Table 12).

Table 12

Where Users and Nonusers Saw or Heard Advertisements for Direct Markets, Maine, 1981

Where Ads Appeared	User	Nonuser
	-----Percentage-----	
Newspaper	91.3	88.0
Television	11.6	9.6
Radio	19.7	33.6
Roadside sign	2.1	4.8
Other	5.4	5.0

Tables 13 and 14 show user and nonuser preferences for days on which direct markets should be open and preference for hours of operation. Significantly more users prefer direct markets to be open on weekdays and weekends (significant at the 1 percent level). Except for a significant (5 percent level) difference in the preference for afternoon hours, there were no significant differences in the preferences on business hours between users and nonusers.

Table 13

Users and Nonusers Preference on Days Direct Markets Should be Open, Maine, 1981

Days	User	Nonuser
	-----Percentage-----	
Weekdays	35.9	26.9
Weekends	47.4	34.4
No preference	34.4	39.1

Table 14

Users and Nonusers Preference on Business Hours for Direct Markets, Maine, 1981

Hours	User	Nonuser
	-----Percentage-----	
Mornings	29.4	23.9
Afternoons	30.7	23.6
Evenings	21.7	19.9
No preference	39.8	42.0

Respondents were asked if they usually processed fruits and vegetables in bulk for the winter by storing, canning or freezing. Sixty-eight percent of the users and sixty percent of the nonusers of direct markets indicated that they did so. This difference was significant at the 5 percent level (Table 15). Tomatoes, berries, and fresh beans were the products most frequently processed by both users and nonusers.

Table 15

Percentage of Users and Nonusers Who Process Their Own Fruits and Vegetables, Maine, 1981

Response	User	Nonuser
	-----Percentage-----	
Yes	67.9	59.2
No	32.1	40.8

Chi-square = 5.85; significant at 95 percent level.

There was no significant difference in the distribution of users and nonusers by place of residence. About one-third of the respondents resided in towns and about one-fourth in cities. As expected, few farm residents used direct markets (Table 16).

Table 16

Place of Residence of Users and Nonusers of Direct Markets, Maine, 1981

Place of Residence	User	Nonuser
	-----Percentage------	
City	26.5	25.8
Suburban	12.1	8.8
Town	33.2	31.5
Rural non-farm	20.9	23.5
Rural farm	7.3	10.4
	100.0	100.0

Chi-square = 4.68; not significant.

There is no significant difference in the makeup of the household of users and nonusers when the average number of adults, teens and those under 13 was determined. Likewise, years of schooling completed averaged 14 for both groups.

Table 17

Household Total Annual Gross Income,

User and Nonuser, Maine, 1981

Income Category	User	Nonuser
	-----Percentage------	
Less than 5000	3.5	9.0
5000 to 9999	14.2	16.2
10000 to 14999	18.8	22.2
15000 to 24999	32.5	35.9
25000 to 39999	23.8	10.7
40000 or more	7.2	6.0

Chi-square = 26.86; significant at the 99 percent level.

There was a highly significant difference in the distribution of users and nonusers of direct markets when looked at by income categories. Over one-third of both user and nonuser respondents were in the 15000 to 24999 income category. However, almost one-fourth of the users were in the $25,000 to $39,995 income category while only 11 percent of the nonusers fell into this category. The data indicate that users tended to be from a higher income group than nonusers.

SUMMARY

Respondents indicated that they purchased over 40 percent of the fresh fruits and vegetables consumed from grocery stores. About 16 percent was obtained from direct markets of some type, and the remainder from their own or friends' gardens. Average total weekly expenditure ranged from about $13 to about $18 depending on the season. A majority of both users and nonusers of direct markets prepare a shopping list prior to buying produce.

Overall, both users and nonusers rated quality better from direct markets than from grocery stores. Quality and appearance were the choice criteria most important to all buyers. Price was the third most important factor.

The most frequently purchased fruits were apples, citrus fruits, bananas, pears and plums. The most frequently purchased vegetables were lettuce, tomatoes, carrots, and potatoes.

The undesirable characteristics of all types of direct markets most commonly cited by users were: inconvenience, limited variety and volume, and prices too high. For nonusers the most frequently indicated reasons for not using direct markets were: don't know of any, too inconvenient, and prices too high. Among the changes suggested to increase patronage were more variety and volume, lower prices, better location, and advertisements.

Users were able to indicate more of all types of direct markets as being in their geographic area than were nonusers. Passing by on the road was the most frequently cited way of learning the location of direct markets. Newspapers were the most often indicated place where users and nonusers remembered seeing advertisements for direct markets.

RECOMMENDATIONS

Based upon the results of the survey it would seem that producers using direct market outlets to market their produce should be conscious of quality of product, variety and volume of produce available for sale, and price. In addition, advertising should be considered as a means to make consumers aware of the existence of conveniently located direct markets. Particularly among nonusers, newspaper and radio advertising could be used to make potential customers more aware of the variety and volume of produce available from direct markets. The results indicate that it is not price that keeps consumers away from direct markets. It is recommended that operation of direct market outlets maintain a good variety and volume of high quality produce, be located in a convenient location, and advertise to make potential customers aware of the existence of the outlet.

REFERENCES

[1] Buitenhuys, Neil C., Alan S. Kezis, and Howard Kerr, Jr. "Consumer Purchasing Habits, Acceptance, and Preferences for Direct Marketed Small Farms Horticultural Commodities in Maine," Bulletin 797, Maine Agricultural Experiment Station, University of Maine at Orono, September 1983.

[2] Buitenhuys, Neil C., and Alan S. Kezis. "Production, Marketing, Socioeconomic Characteristics and the Perceived Needs of Maine's Small Farmers," Bulletin 795, Maine Agricultural Experiment Station, University of Maine at Orono, June 1983.