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MAY 1986

**CONSUMER PREFERENCES AND ATTITUDES
REGARDING FRUIT AND VEGETABLE
PURCHASES FROM DIRECT MARKET OUTLETS**

**Cathleen M. Connell
James G. Beierlein
Harry L. Yroomen**

WAITE MEMORIAL BOOK COLLECTION
DEPARTMENT OF AGRICULTURAL AND APPLIED ECONOMICS
232 CLASSROOM OFFICE BLDG.
1994 BUFORD AVENUE, UNIVERSITY OF MINNESOTA
ST. PAUL, MINNESOTA 55108

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The Pennsylvania State University
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TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	ii
LIST OF FIGURES	v
ABSTRACT	vi
INTRODUCTION AND BACKGROUND	1
PROCEDURE	1
GENERAL CHARACTERISTICS OF PENNSYLVANIA CONSUMERS	2
Description of Sample Subgroups	3
CONSUMER'S SHOPPING PATTERNS	4
Fresh Fruits and Vegetables	4
Familiarity With and Use of the Pennsylvania Logo	5
Awareness of Local Direct Markets	6
NON-USERS OF DIRECT MARKETS	6
Consumers With Direct Market Availability	6
Consumers Without Direct Market Availability	8
DIRECT MARKET OUTLET SHOPPERS	9
Roadside Stand Users	11
Farmer's Markets Users	13
Pick-Your-Own Outlet Customers	15
PROFILES OF DIRECT MARKET SHOPPERS	17
CONCLUSIONS	18
APPENDIX A: QUESTIONNAIRE	59

LIST OF TABLES

<u>Number</u>		<u>Page</u>
1	Location of residence of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	20
2	Number of years respondents have lived in their areas, 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	21
3	Age of respondents to the 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	22
4	Marital status of respondents by sex, 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	23
5	Employment status of respondents and spouse, 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	24
6	Educational level of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	25
7	Size of household of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	26
8	Number of children under 18 living in households of respondent to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	27
9	Sex of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	28
10	Race of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.	29
11	Family income of respondents to 400 household survey of fresh fruit and vegetable purchases at direct market outlets, Pennsylvania, 1984.	30

12	Change in respondents use of fresh vegetables and fruits in the past few years by type of shopper, Pennsylvania, 1984.	31
13	Do respondents report using a wider variety of fresh fruits and vegetables by type of shopper, Pennsylvania, 1984.	32
14	Consumers' quality rating of fruits and vegetables purchased by type of shopper, Pennsylvania, 1984.	33
15	Consumers' ratings of locally-grown fruits and vegetables purchased relative to those grown elsewhere by type of shopper, Pennsylvania, 1984.	34
16	Consumers' ratings of Pennsylvania grown fruits and vegetables, compared to those grown in other states by type of shopper, Pennsylvania, 1984.	35
17	Importance of various factors in fruit and vegetable selection by type of shopper, Pennsylvania, 1984.	36
18	Respondents' familiarity with Pennsylvania's "We're Growing Better" Logo by type of shopper, Pennsylvania, 1984.	38
19	Respondents' quality rating of produce purchased with the Pennsylvania logo by type of shopper, Pennsylvania, 1984.	39
20	The most frequently mentioned reasons shoppers would and would not be inclined to buy produce with the Pennsylvania Logo, Pennsylvania, 1984.	40
21	Respondents' awareness of advertising for local direct markets and type of advertising, Pennsylvania, 1984.	41
22	Number of years patrons of any type of direct market have shopped at them, Pennsylvania, 1984.	42
23	Distribution of household members who usually shop at direct markets, Pennsylvania, 1984.	43
24	Day(s) of the week and times of the day respondents prefer to shop at direct markets, Pennsylvania, 1984.	44
25	Fruits and vegetables usually purchased by direct market shoppers, Pennsylvania, 1984.	45
26	Disposition of produce for other than immediate consumption by direct market users, Pennsylvania, 1984.	46
27	Comparison of direct markets to supermarkets on the basis of seven characteristics of fruits and vegetables, Pennsylvania, 1984.	47

28	Frequency of purchasing supermarket produce when local direct market produce is available, Pennsylvania, 1984.	48
29	One-way distance traveled to the roadside market usually visited, Pennsylvania, 1984.	49
30	Average amount respondents spent during each visit to their local roadside stand, Pennsylvania, 1984.	50
31	Best- and least-liked features of produce purchased at roadside markets, Pennsylvania, 1984.	51
32	One-way distance traveled to the farmers' market usually visited, Pennsylvania, 1984.	52
33	Average amount respondents spent during each visit to their local farmers' market, Pennsylvania, 1984.	53
34	Best- and least-liked features of produce purchased at farmers' markets, Pennsylvania, 1984.	54
35	One-way distance traveled to pick-your-own outlet usually visited, Pennsylvania, 1984.	55
36	Average amount respondents spent during each visit to their local pick-your-own outlet, Pennsylvania, 1984.	56
37	Best- and least-liked features of produce purchased at pick-your-own outlets, Pennsylvania, 1984.	57

LIST OF FIGURES

Number

Page

1	Number of responses to 400 household telephone survey on fruit and vegetable purchases at direct market outlets, by county, Pennsylvania, 1984.	58
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ABSTRACT

Typically, direct-market operators are production-oriented. A more profitable approach is one that is market-oriented (i.e., which puts emphasis on filling the needs of the consumer). To enable operators to better understand factors which influence customers' decisions to purchase fresh fruits and vegetables, a random telephone survey of 400 Pennsylvania households was conducted. Respondents were asked about: 1) fresh fruit and vegetable consumption, 2) familiarity with "Pennsylvania-grown" produce, 3) awareness and use of three types of direct markets--roadside stands, farmers' markets, and pick-your-own outlets, and 4) personal and family characteristics.

Of the 400 principal food shoppers surveyed, about 90 percent were women. Most participants were married, white, lived in their present residence for over ten years, completed a high school education, and reported an annual family income of less than \$30,000 a year. Average age for the sample was 48 years.

The vast majority of respondents reported being aware of some type of direct market in their area. Of these individuals, ninety-one percent reported shopping at these markets at least once a year. Roadside stands were patronized most frequently, followed by farmers' markets, and pick-your-own outlets.

Consumers are purchasing as much or more fresh fruits and vegetables than they did in past, and some are using a wider variety of produce. Overall, consumers are very satisfied with the quality of the produce they purchase. Locally-grown produce is preferred over produce grown elsewhere in terms of its freshness, taste, appearance, and nutritional value.

The factors which most influence consumers selection of fresh fruits and vegetables are quality, appearance, nutritional value, price, whether you can purchase just the quantity you want, whether the produce is in season, and where it is grown.

Only one-third of the study participants were familiar with the Pennsylvania logo, "We're Growing Better." Direct-market users, however, are more likely to be familiar with the logo than those who either do not shop at a direct market or are not aware of any direct markets in their area. Of those familiar with the logo, most purchased produce with the Pennsylvania logo and were very satisfied with it. The items most frequently purchased with the logo include apples, potatoes, tomatoes, pears, mushrooms, peaches, and corn. Most respondents indicated that if the fruits and vegetables they found in the market had the Pennsylvania logo, they would be more inclined to buy them.

Married and single women who shop alone and married women who are accompanied by their husband are the typical direct market shoppers. Most respondents reported that they had no preference in terms of their shopping days. Of those that expressed a preference, Thursday, Friday, and Saturday were favored, followed by Wednesday, Tuesday, Monday, and Sunday. Mornings are the most preferred time of the day for direct market shopping, following by afternoons and evenings.

Apples are the most frequently purchased fresh fruit by direct market shoppers, followed by oranges, bananas, peaches, pears, strawberries, plums, grapefruit, cantalopes, cherries, blueberries, nectarines, watermelon, and other types of melon. At least one-third of the direct market shoppers purchase brocolli, tomatoes, lettuce, cauliflower, corn, green beans, carrots

and potatoes. Other commonly purchased vegetables include: celery, cabbage, peas, and peppers.

Direct market users are usually white married women who are less than 50 years old, have completed high school, and who reside in small towns or on farms. These profiles were basically the same for roadside stand, farmers' market, and pick-your-own shoppers and are very similar to those developed for supermarket shoppers.

In sum, consumer attitudes towards direct markets are very favorable and most study participants currently shop at either a roadside stand, farmers' market, or pick-your-own outlet. Even non-shoppers give produce purchased at direct markets higher ratings than supermarket produce for its freshness, quality, appearance, and price. Additionally, most consumers who do not patronize a direct market would do so if one was located nearby.

INTRODUCTION AND BACKGROUND

Direct-farm marketing, including roadside stands, farmers' markets, and pick-your-own outlets, has been adopted by a great number of Pennsylvania fruit and vegetable producers. By selling directly to the consumer, the cost of transportation, and distribution of products is reduced. Thus, the direct-market farmer receives a larger portion of the consumer's food dollar than those who distribute to supermarkets and other retail establishments.

Traditionally, the sale of direct-market farm products has been production-oriented. In other words, whatever products the farmer grows are offered to consumers for sale. A different approach is one that is market-oriented, or one which reflects the needs of the consumer in terms of selection, packaging, and quality. Although retail food distributors have been aware of the increased profits which result from a consumer-driven approach, the majority of direct-market farmers are production oriented. This study was conducted to gain information about consumer preferences for fruits and vegetables. Results from this study will enable operators to better understand the factors which influence as well as inhibit consumer's decisions to purchase produce at direct markets.

PROCEDURE

A random survey of 400 Pennsylvania households was conducted in December, 1984. The populations of each of Pennsylvania's 67 counties were sampled in proportion to their size, based on 1980 Census data. (The number of responses by county is shown in Figure 1).

The principal food shopper in each participating household was questioned. Almost 90 percent of the 400 respondents were women. Respondents were asked about: 1) fresh fruit and vegetable consumption, 2) familiarity with "Pennsylvania-grown" produce, 3) awareness and use of three types of direct markets -- roadside stands, farmers' markets, and pick-your-own outlets, and 4) personal and family characteristics.

GENERAL CHARACTERISTICS OF PENNSYLVANIA CONSUMERS

Consumers who participated in the study reside in diverse settings. Almost one-third live in towns whose population ranges from 2,500 to 50,000, and about one-fourth reside in small towns of less than 2,500 people. The remainder live in large cities (19.4%), in rural areas or on a farm (16.4%), or in small cities (10.6%) (See Table 1). Three-fourths of all study participants have lived in their areas for more than ten years (See Table 2).

The sample was distributed almost equally among four age groups, (25-34, 35-49, 50-64, and over 65 years of age) with at least 20 percent of respondents in each group. Less than 5 percent of the respondents were between 18 and 24 years (See Table 3).

Nearly three-fourths of the people were married at the time of the study (See Table 4). Although the majority of respondent's spouses were employed full-time (68.4%), less than one-third of the respondents were employed full-time. Almost one-fourth of both respondents and their spouses were retired (See Table 5). Nearly forty-five percent of the people interviewed had completed high school, and about one-third had completed at least some college (See Table 6).

Almost one-half of the sample reported living in families with one or two members, while almost 40 percent reported living in families with three or four members. The remainder reported five or more members (13.6%) (See Table 7). Over one-half of the respondents (58%) do not have children under the age of 18 living in their households, while almost one-third have one or two children at home (See Table 8).

The vast majority of respondents were female (89.2%) and white (93.9%) (See Tables 9 and 10). Approximately 12 percent of the households reported their total income to be less than \$10,000. Thirty percent had incomes from \$10,000-\$20,000, and 39 percent from \$20,000-\$30,000, and 19 percent earned more than \$30,000 annually (See Table 11).

Description of Sample Subgroups

Before presenting the results of this study, a brief description of various sub-groups of the total sample of 400 respondents is in order. The vast majority of respondents (86.5%) reported being aware of some type of direct market in their area. Of these individuals, 91 percent reported shopping at these markets at least once a year. In terms of the three types of direct markets included in this study, 260 respondents reported shopping at roadside stands, 187 patronized farmers' markets, and 101 used pick-your-own outlets. Clearly, these categories are not mutually exclusive, and many respondents reported shopping at more than one type of direct market. It should also be noted that the analyses which is based on all study respondents and discussed in subsequent sections of this paper includes 31 individuals who are aware of a direct market in their area but who choose not to shop there, and 54 individuals who are not aware of any direct markets in their area. Thus about twenty percent of the respondents purchased all of their fresh fruits and vegetables from non-direct market outlets.

CONSUMER'S SHOPPING PATTERNS

Fresh Fruits and Vegetables

Respondents were asked if their household's use of fresh fruits and vegetables changed over the past few years. About 95 percent of all respondents reported that their use either increased or stayed the same (See Tables 12 and 13). Slightly over half of all respondents reported that they use a wider variety of fresh fruits and vegetables than they did a few years ago (52.0% for fruits and 56.5% for vegetables).

Overall, consumers reported being very satisfied with the quality of the produce they purchased. Over 80 percent of all respondents rated the fresh fruits and vegetables they purchased as "good" (55.0%) or "very good" (26.5%) (See Table 14). Consumers were also asked to compare their satisfaction with locally-grown produce to that with produce grown elsewhere. Respondents reported that locally-grown produce was fresher and kept better (mentioned by 77% of all respondents), tasted better (56.0%), looked better (51.8%), and was more nutritious (38.0%) than produce grown elsewhere (See Table 15).

Next, consumers were asked to compare Pennsylvania-grown fruits and vegetables with produce grown in other states. Over 85% of the respondents reported that Pennsylvania-grown produce was either "about the same" or "better" than produce grown in other states (See Table 16).

Several factors influence consumers selection of fresh fruits and vegetables. The most important factors are quality, appearance, and nutritional value. Price, whether you can purchase just the quantity you want, whether the produce is in season, and where it is grown are rated somewhat lower but are still important factors (See Table 17).

Almost sixty percent of the respondents reported that they would be willing to pay extra for organically-grown produce. Over one-half of all respondents (57.2%) have a garden or fruit trees, compared to nearly two-thirds of the roadside market users (64.6%). Almost sixty percent of the farmers' market users (58.8%) and over three-fourths (77.2%) of the pick-your-own outlet users have a garden or fruit trees. Finally, three-fourths of all respondents made a shopping list before going to the store with three-fourths of these lists including specific fruits and vegetables.

Familiarity With and Use of the Pennsylvania Logo

In the next section, respondents were asked several questions about the Pennsylvania logo, "We're Growing Better." Over one third (35.2%) of all respondents report that they are familiar with the logo. Direct market users, however, are more likely to be familiar with the logo than respondents who either do not shop at a direct market or are not aware of any direct markets in their area. Almost one-half of the pick-your-own outlet users (45.5%), 40.6 percent of the farmers' market users, and 37.7 percent of the roadside market users are familiar with the Pennsylvania logo. Of those respondents, the vast majority have purchased food items with the Pennsylvania product logo. Approximately 70 percent of all respondents bought such products, while 76.1 percent of the pick-your-own outlet users, 73.7 percent of the farmers' market users and 73.5 percent of the roadside markets users bought "Pennsylvania products" at some time (See Table 18).

Of the 100 respondents who bought produce with the Pennsylvania logo, the most frequently purchased items include apples, potatoes, tomatoes, pears, mushrooms, peaches, and corn. Eighty-eight percent of all

respondents felt that Pennsylvania logo products were "good" or "very good" (See Table 19).

Overall, 70 percent of all respondents indicated that if the fruits and vegetables they found in the market had the Pennsylvania logo, they would be more inclined to buy them. Respondents were also given an opportunity to list the reasons why they would (or would not) be inclined to buy produce marked with the Pennsylvania logo. Factors which would encourage respondents to buy these items include: it would help support Pennsylvania, the local community, farmers, and the economy; and freshness, higher quality, and the lower prices of Pennsylvania-logo products. Alternatively, respondents who would not be inclined to buy Pennsylvania-logo produce mentioned that the quality and price of produce matter more than where it is grown (See Table 20).

Awareness of Local Direct Markets

Of the 400 telephone survey respondents, 86.5 percent reported that they were aware of a direct market outlet in their area. Most were aware of a farmers' market (67.5%), followed by a roadside stand (66.8%) and a pick-your-own outlet (54.5%). Of those respondents who reported being aware of a direct market, over one-half (58.1%) indicated that they saw or heard some form of advertisement for the outlet in their area. Newspapers were the most frequently reported type of advertisement (mentioned by 46.5% of the sample), followed by radio (13.9%), signs along the road (10.4%), television (5.5%), and billboards (3.5%) (See Table 21).

NON-USERS OF DIRECT MARKETS

Consumers With Direct Market Availability

As described previously, thirty-one respondents reported having access to a direct market but chose not to shop there. The main reasons included: "inconvenience," "the supermarket has what I need," "no transportation," "there are none nearby," "the supermarket is closer," "prices are too high," "I grow my own," and "I have it delivered."

The thirty-one non-users of direct markets were asked to suggest ways to encourage increased patronage. The majority of respondents who answered this question (64.5%) reported that they did not know of any ways that direct market operators could entice non-users to shop at their outlets. This may suggest that respondents don't take the opportunity to answer open-ended questions or that these 31 respondents are decidedly non-users. Six respondents indicated that moving to a "better location" might increase their patronage. However, it is not apparent what constitutes a better location -- is it one which is closer to the consumers home? or, closer to other shopping areas? or on a less busy street? Two respondents suggested that the direct market operators use door-to-door sales to increase their profits.

In another attempt to determine the factors that inhibit use of direct markets, respondents who do not use direct market outlets were asked to compare seven characteristics of fruits and vegetables purchased at direct markets with those purchased at the supermarket. For two of the seven characteristics, consumers indicated that they preferred supermarkets over direct markets. These include: "cleanliness of market or store," and "selection of products". In terms of "appearance," "freshness," "quality" and "lower prices," however, these consumers prefer direct markets.

Overall, consumers indicate that direct markets and supermarkets both provide a "friendly atmosphere." Thus, while they recognize some of the advantages direct markets present, they remain content to buy fresh produce elsewhere.

Apples, oranges, and bananas are the most frequently purchased fresh produce by consumers who do not shop at direct markets. Less than one-fourth of the sample reported purchasing grapefruits, grapes, peaches, or pears. Over one-third of the non-direct market users purchase broccoli, cauliflower, and carrots. Vegetables purchased but less frequently mentioned include: lettuce, celery, green beans, corn, peppers, potatoes, cabbage, and peas. Finally, 80 percent of the 31 non-users of direct markets report that they process fresh fruits and vegetables at home by storing, canning, or freezing.

Apples are the most frequently purchased type of fresh fruit for non-users with no convenient access to a direct market (mentioned by 83.3% of this sub-sample), followed by oranges (74.1%) and bananas (59.3%). Other commonly purchased fruits include pears, grapes, grapefruit, peaches, and plums. The most commonly purchased fresh vegetables include: broccoli, green beans, carrots, potatoes, cauliflower, corn, lettuce, and tomatoes (each mentioned by more than one-fourth of the respondents in this sub-sample).

Consumers Without Direct Market Availability

Three-fourths of the respondents who currently do not have a direct market available in their area report that they would shop at one if it were nearby. The main reason offered for why respondents felt that they would shop at a direct market was "freshness" of the produce (87.1%). Other reasons, mentioned by less than one-fourth of the respondents

include: "low prices," "high quality," "convenience," and the "option to select your own produce." The reason most frequently cited by respondents for not wanting to shop at a direct market is that the "supermarket has everything I need."

DIRECT-MARKET OUTLET SHOPPERS

Over three-fourths (77.2%) of the total sample of 400 respondents use one or more types of direct market outlets at least once a year. In this study, three types of direct markets were included: roadside stands, farmers' markets, and pick-your-own outlets.

Almost 40 percent (37.8%) of the respondents reported that they have been shopping at their local direct market for over fifteen years, while nearly 30 percent (29.8%) reported patronizing these outlets between ten and fifteen years. The remainder of the respondents (30.4%) shopped at direct markets for less than six years (See Table 22).

Respondents were also asked which household members usually shop at direct markets. Single and married women shop at direct markets most frequently. Over one-fourth of the respondents (28.2%) reported that the person who usually shops at direct markets is a married woman, unaccompanied by other family members. Single women account for an additional 11.4 percent of the direct market shoppers. The most frequently mentioned response category, however, was "husband and wife" (mentioned by 29.8% of all respondents). Other responses, in decreasing order of frequency include: "wife and children" (9.8%), "whole family" (9.5%), "husband alone" (4.1%), "unmarried men" (2.2%), and "husband and children" (.6%) (See Table 23).

Respondents were also asked what days of the week and times of the day they prefer to shop at direct markets. Thursday, Friday, and Saturday were the days most respondents preferred to shop, followed by Wednesday, Tuesday, Monday, and Sunday. However, most respondents reported that they had "no preference" in terms of their shopping days. Mornings are the most preferred time of the day for direct market shopping, mentioned by 142 respondents. However, seventy-eight respondents reported that they had "no preference" as to their shopping time. Afternoons and evenings were less frequently chosen as preferred shopping times (mentioned by 64 and 38 respondents, respectively) (See Table 24).

Apples are the most frequently purchased fresh fruit by direct market shoppers, followed by oranges, bananas, peaches, pears, strawberries, plums, grapefruit, cantalopes, cherries, blueberries, nectarines, watermelon, and other types of melon. Compared to non-users of direct markets, direct-market shoppers report purchasing a wider variety of fresh fruit.

At least one-third of the direct market shoppers purchase broccoli, tomatoes, lettuce, cauliflower, corn, green beans, carrots, and potatoes. Other vegetables purchased at direct markets include: celery, cabbage, peas, and peppers (See Table 25).

Over half (57.1%) of the direct market outlet shoppers indicated that they processed fresh fruits and vegetables by canning, preserving, or freezing. Freezing was the most commonly reported method of processing fresh produce, followed by canning and preserving. Respondents also indicated what types of produce they processed. Corn, followed by green beans, peas, plums, tomatoes, strawberries, lima beans, and peppers are the fruits and vegetables most commonly frozen for later use. Produce which is

most commonly canned includes: tomatoes, peaches, green beans, and pears. Finally, strawberries are the most commonly preserved fruit (See Table 26).

Direct market shoppers were asked to compare supermarkets with direct market outlets on seven characteristics related to fresh produce purchases. Consumers indicate that they prefer the supermarket over their direct market outlet only for "cleanliness of the market or store" (mentioned by 140 respondents). It should be noted, however, that 97 respondents indicated that a market or store's cleanliness made no difference to them. For each of the other six characteristics, the vast majority of respondents indicated that they preferred direct markets to the supermarket. These characteristics include: freshness, quality, appearance, and lower prices of products; wide selection, and friendly atmosphere; in descending order of frequency. Shoppers provide indirect evidence that the factors which most influence their purchasing decisions include: selection of products, followed by freshness, price, and appearance (as indicated by the low numbers of individuals who report that these features make no difference to them) (See Table 27).

Ninety percent of the direct market outlet shoppers also purchase produce from the supermarket. Of these supermarket shoppers, almost three-fourths (73.5%) shop at supermarkets one to two times a week (See Table 28).

Roadside Stand Users

Roadside stands are one type of direct market outlet examined in this study. Of the 315 respondents who use some type of direct market outlet, 260 (or 82.5%) shop at roadside stands. Over one-third (36.9%) report that they make weekly visits, while the next most common responses were: twice a month, once a month, and twice a week.

Generally, roadside shoppers became aware of the stand they usually shop at by "just passing by" (mentioned by 159 respondents). Other shoppers became aware by: "word of mouth," "it's always been there," "newspaper ads," "roadside signs," "advertising," and "television ads."

Most roadside shoppers visit the market to find out what produce is available for sale (146 respondents). Other shoppers read a sign in front of the roadside stand, read newspaper ads, saw advertising, or hear by word of mouth what produce is available. Twenty-seven respondents indicated that they knew what produce would be available at their roadside stand because they knew what is in season (27 respondents).

Most shoppers travel ten miles or less to visit a roadside stand (214 respondents). Only twelve shoppers travel over fifteen miles to a roadside stand (See Table 29).

Over one-half of all roadside stand users expect prices there to be lower than supermarket prices (52.3%). One-third expected prices to be about the same at roadside markets and supermarkets, and only ten percent believed that prices at roadside stand would be higher than supermarket prices. Over eighty percent of those respondents who shop at roadside markets spend between four and twelve dollars per visit (See Table 30).

Two-thirds (67.3%) of all roadside stand shoppers indicated that the feature they liked best about produce purchased at roadside stands was its freshness and the fact that fruits and vegetables were not prepackaged. Other frequently mentioned "best-liked" features included: "quality," "you can choose what you like," "good selection," "good prices," "good atmosphere," "convenience," and the fact that "produce is locally-grown."

Less than ten of the roadside stand users reported what they liked least about produce purchased at roadside stands. Responses include:

"stand is not clean," "limited selection," "poor quality," "inconvenient," "uninformed workers," and "you must wash the produce" (See Table 31).

Roadside market shoppers were asked to make suggestions to operators to increase patronage by consumers. About 25 percent responded to this question and suggested that operators should: "advertise more," "move to a better location," and "provide a greater variety of produce" and "carry more non-produce items."

In addition to produce, many roadside stands offer additional items for sale. Over three-fifths (62.7%) of the roadside stand users indicate that they buy non-produce items at roadside stands. The items most frequently purchased include: baked goods, flowers and plants, cider, milk, eggs, and honey.

Roadside market shoppers were also asked how much produce they expected to buy from their local stand in the future. Eighty-six percent reported that they planned to buy about the same amount of produce from roadside stands in the future. Less than ten percent planned to buy more produce, while less than five percent planned to buy less.

Farmers' Market Users

The second type of direct market included in this study is farmers' markets. Of the 315 respondents who shop at a direct market, 187 (or 59.4%) shop at farmers markets. One-third of the farmers' market shoppers (32.6%) report that they make weekly visits, while 60.9 percent shop at farmers' markets once a month and 16.6 percent shop at farmers' twice a month.

Farmers' market shoppers most commonly report that they became aware of the market they usually shop at by "word of mouth" (reported by 33.7% of the respondents). Other shoppers became aware of their local farmers'

market by: "I pass by it," "newspaper ads," "its been there a long time," "advertising," "radio ads," "TV ads," "roadside signs," and through the "mail."

Like roadside stand shoppers, farmers' market shoppers visit the market they usually shop at to find out what produce is available for sale (133 respondents). Newspaper ads, knowing what's in season, word-of-mouth, and advertisements helped other shoppers to become aware of what items the market offered for sale.

More than half of the farmers' market shoppers travel less than five miles to the market where they usually shop (148 respondents). Nearly 90 percent of those responding travel less than 10 miles to a farmer's market (See Table 32).

Shoppers were also asked to compare farmers' market prices with prices charged in supermarkets. Almost one-half of the farmers' market shoppers, (46.5%) believed that farmers' market prices were lower, 30% indicated that they were about the same, and 20 percent felt that they were higher than supermarket prices.

Consumers spend an average of \$6.00-7.99 per visit to a roadside market versus \$8.00-9.99 at farmers' markets. Less than five percent of the roadside stand users spend over fifteen dollars per visit. Alternatively, over twenty percent of the farmers' market shoppers spend that amount. The majority of farmers' market shoppers, however, spend between four and twelve dollars on their average purchase. The large purchase may reflect the broader selection of products (e.g., meat, bakery goods, seafood) sometimes available at farmer's markets (See Table 33).

Over one-third (37.1%) of all farmers' market shoppers indicated that the feature they like best about produce purchased at farmers' markets was

its freshness and the fact that it is not pre-packaged. Other "best-liked" features include: quality, good variety, ability to select your own produce, low prices, and nice atmosphere. Although most shoppers had no "least liked features," those that did felt that farmers' markets were: too crowded, not clean, their prices were too high, they provided poor parking, and were too far away (See Table 34).

Farmers' market shoppers were asked what operators could do to increase patronage at markets. Of the 65 shoppers who answered this question, comments included: "markets should be open more days," "move to a better location," "provide better parking," and "advertise."

Like roadside stands, farmers' markets often sell items other than produce. Over one-half of the farmers' market shoppers (56.1%) purchase non-produce items. The most commonly mentioned non-produce items were meat, and baked goods. Other items frequently purchased by farmers' market shoppers include: cheese, eggs, and plants and flowers.

Farmers' market shoppers were asked how much produce they expected to buy from their local farmers' market in the future. The vast majority of shoppers (91.4%) reported that they planned to buy about the same amount. Less than two percent reported that they planned to buy less (1.6%), while 6.4 percent planned to buy more from their farmers' market in the future.

Pick-Your-Own Outlet Customers

The third type of direct market included in this study is pick-your-own outlets. Of the 315 respondents who shop at a direct market, 101 (or 32.1%) shop at pick-your-own outlets. Pick-your-own outlets are visited less frequently than other types of direct markets. Most visits to pick-your-own outlets are made only once or twice a year. This may be true because many pick-your-own operations offer single crops, such as

strawberries, cherries and apples. Only seventeen shoppers report visiting pick-your-own outlets at least once a month during the growing season.

Most shoppers (42.6%) become aware of pick-your-own outlets by word-of-mouth. Other ways shoppers became aware of pick-your-own outlets include: "newspaper ads," "I pass by it," "advertising," "roadside signs," "I always knew it was there" and "radio ads."

Roadside stand and farmers' market shoppers usually visit a market to find out what produce is available for sale. This is not the case with pick-your-own outlet users, however. Pick-your-own shoppers are most likely to learn about what produce is available at nearby outlets through newspaper ads, word-of-mouth, knowing what's in season, advertising, and signs at the outlet.

Most pick-your-own outlet shoppers travel less than ten miles to the outlet they normally visit (67 respondents). Twelve shoppers report that they travel between eleven and fifteen miles, and ten shoppers report traveling between sixteen and twenty miles to the outlet (See Table 35).

Like roadside stand and farmers' market shoppers, most pick-your-own shoppers believe that pick-your-own prices are lower than supermarket prices for fresh fruits and vegetables (87.1%). Only eight percent of the pick-your-own shoppers indicated that pick-your-own prices are about the same as the supermarket, and three percent felt they were higher.

Generally, consumers spend more during a visit to a pick-your-own outlet than to a roadside stand or a farmers' market. The average amount purchased per visit at a pick-your-own outlet ranged from \$10.00-11.99. Fifteen percent of the shoppers reported that they usually spent over fifteen dollars during an average pick-your-own outlet visit (See Table 36).

Another difference between roadside stand, farmers' market, and pick-your-own outlet users are the "best-liked" features which respondents reported. The most frequently mentioned "best-liked" feature for pick-your-own outlet shoppers was "I can choose the type and amount I want to buy" (mentioned by 52 shoppers). Other best-liked features included: "freshness," "good prices," "it's fun," "quality," and the "satisfaction of picking your own." The most commonly-reported "least-liked" feature of pick-you-own outlets was "it's hard work" (mentioned by 13 respondents) (See Table 37).

Apples are the most frequently purchased item at both roadside stands and farmers' markets. At pick-your-own outlets, strawberries are purchased most frequently (mentioned by 80 shoppers). Apples are second, followed by peaches, cherries, blueberries, tomatoes, green beans, pears, corn, raspberries, and plums.

In terms of expectations for future purchases at pick-your-own outlets, most shoppers plan to buy about the same amount (82.2%). Twelve percent of the shoppers plan to buy more in the future, and six percent plan to buy less.

PROFILES OF DIRECT MARKET SHOPPERS

Descriptions of "typical" direct market shoppers would help to target promotional activities and set guidelines for operating hours, inventory, selection, etc. The following section provides profiles of direct market shoppers.

Direct market users are usually white married women who are less than 50 years old, have completed high school, and who reside in small towns or on farms. These profiles were basically the same for all types of markets. They were similar to people who frequent supermarkets.

From these profiles, it is obvious that the three types of direct market shoppers share much in common. For example, all types of direct market shoppers are usually under fifty years old, have graduated from high school, and are white. Differences between types of direct market shoppers include: 1) farmers' market users are as likely to live in small cities or urban areas as small towns or on farms, 2) farmers' market users are as likely to be unmarried as married, and 3) pick-your-own users have usually lived in their communities for a long time.

CONCLUSIONS

Overall, consumers attitudes towards direct markets are very favorable and most participants in this study currently shop at either a roadside stand, farmers' market, or a pick-your-own outlet. Even non-shoppers give produce purchased at direct markets higher ratings than supermarket produce for its freshness, quality, appearance, and price. Additionally, most consumers who do not patronize a direct market would do so if one was located nearby.

Quality, appearance, nutritional value, whether you can purchase the quantity you want, and whether the produce is in season are the most important factors which guide consumers selection of produce. Although consumers do not usually select produce based on where it is grown, consumers appear to be more inclined to buy locally-grown produce. To promote the sale of Pennsylvania produce, efforts to make the Pennsylvania logo more easily recognized and appealing are warranted.

Several findings from this study may be useful in promoting direct markets:

1. Most shoppers prefer to shop at direct markets on Thursday, Friday, and Saturday during the morning. Since some shoppers mentioned that direct markets (especially farmers' markets) were too crowded, it may be advisable to add personnel for these peak shopping times, or in the case of farmers' markets, expand the hours or days of operation.
2. Almost twice as many direct market shoppers process fresh fruits and vegetables by canning, preserving, or freezing than those who do not shop at direct markets. Thus, efforts to promote home processing may be well received. Examples include home-canning demonstrations, recipe exchanges, how-to pamphlets and literature, nutritional information, and processing safeguards.
3. Most shoppers find out about direct markets in their area by just passing by or by word of mouth. For this reason good signs are important. Roadside signs should be large, legible, clearly visible, and include the times and days that markets are open. Since most people travel less than ten miles to a direct market outlet, your marketing area is limited. Advertising should be restricted to your local area. Strong use of local radio, newspaper, and direct mail advertisements seems to be warranted to increase patronage at direct markets.
4. Offering a wide variety of non-produce items may increase overall sales and patronage at direct markets since shoppers appreciate wide selection. In addition to baked goods, flowers and plants, cider, milk, eggs, and honey, consumers indicate a willingness to purchase meat and cheese at direct markets.
5. Shoppers rate the unique features of direct markets very favorably-- offering a broad selection of high quality, fresh, attractive produce at relatively low prices. However, several shortcomings of direct markets were also mentioned, including poor parking, markets were not clean, and crowded shopping conditions.
6. Compared to roadside stand and farmers' market shoppers, pick-your-own outlet users made less frequent visits (usually only once or twice a year), spend more per visit (between ten and fifteen dollars), and are more likely to become aware of the outlet by advertisements, especially those in newspapers.

Table 1. Location of residence of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Shopper's Residence	All Respondents		Type of Shopper					
			Roadside Market		Farmers' Market		Pick-Your-Own	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Open country or farm	65	16.4	48	18.6	25	13.5	22	22.2
Small town less than 2,500	88	22.2	61	23.6	43	23.2	31	31.3
Town of 2,500 - 50,000	125	31.5	90	34.9	68	36.8	31	31.3
Small city 50,000 - 100,000	42	10.6	29	11.2	20	10.8	10	10.1
Large city 100,000 +	77	19.4	30	11.6	29	15.7	5	5.0*
No Answer	3	-	2	-	1	-	2	-
Total	400	100.0	260	100.0	186	100.0	101	100.0

*Significantly different at the 5% level.

Table 2. Number of years respondents have lived in their areas, 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Number of Years at Present Residence	All Respondents		Type of Shopper					
	Number	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
			Number	Percent	Number	Percent	Number	Percent
1 - 2	24	6.0	14	5.3	8	4.3	2	2.0
3 - 4	22	5.5	16	6.1	10	5.4	7	7.0
5 - 6	27	6.8	23	8.9	15	8.1	7	7.0
7 - 8	12	3.0	9	3.5	2	1.1	4	4.0
9 - 10	15	3.8	10	3.9	8	4.3	4	4.0
Over 10	297	74.8	187	72.2	143	76.9	76	76.0
No Answer	3	-	1	-	0	0	1	-
Total	400	100.0	260	100.0	186	100.0	101	100

Average Number of Years = 25.

Table 3. Age of respondents to the 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Age	All Respondents		Type of Shopper					
	Number	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
			Number	Percent	Number	Percent	Number	Percent
18 - 24	19	4.8	14	5.5	9	4.9	5	5.0
25 - 34	85	21.6	65	25.5	43	23.6	28	28.0
35 - 49	106	27.0	77	30.2	54	29.7	39	39.0*
50 - 64	102	26.0	62	24.3	43	23.6	19	19.0
65+	81	20.6	37	14.5	33	18.1	9	9.0*
No Answer	7	-	5	-	4	-	1	-
Total Responses	400	100.0	260	100.0	186	100.0	100	100.0

Average Age = 48 years.

Table 4. Marital status of respondent by sex, 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Marital Status	All Respondents		Type of Shopper					
			Roadside Market		Farmers' Market		Pick-Your-Own	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Married	295	73.9	209	80.4	140	75.3	89	89.0
Divorced	18	4.5	8	3.1	5	2.7	2	2.0
Separated	9	2.3	4	1.5	5	2.7	1	1.0
Widowed	51	12.8	26	10.0	23	12.4	5	5.0
Never Married	26	6.5	13	5.0	13	7.0	3	3.0
No Answer	1	-	0	-	-	-	1	-
Total	400	100.0	260	100.0	186	100.0	101	100.0

Table 5. Employment status of respondents and spouse, 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Employment Status	All Respondents				Type of Shopper											
					Roadside Market				Farmers' Market				Pick-Your-Own			
	Respondent		Spouse		Respondent		Spouse		Respondent		Spouse		Respondent		Spouse	
	Number	Percent	Number	Percent	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Full-time	117	29.3	201	68.4	82	31.5	149	71.3	54	29.0	99	71.2	33	33.0	70	78.6
Part-time	59	14.8	7	2.4	45	17.3	7	3.3	27	14.5	4	2.9	21	21.0	3	3.3
Not Employed	141	35.3	17	5.8	95	36.5	16	7.7	70	37.6	10	7.2	38	38.0	4	4.5
Retired	82	20.6	69	23.5	38	14.6	37	17.7	35	18.8	26	18.7	8	8.0	12	13.5
No Spouse	-	-	106	-	-	-	-	-	-	-	47	-	-	-	11	-
No Answer	1	-	0	-	0	0	0	0	0	0	0	0	1	-	1	-
Total	400	100.0	400	100.0	260	100.0	260	100.0	186	100.0	185	100.0	101	100.0	101	100.0

Table 6. Educational level of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Educational Level	All Respondents		Type of Shopper					
	Number	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
			Number	Percent	Number	Percent	Number	Percent
1st - 8th	27	6.8	13	5.0	7	3.8	3	3.0
9th - 11th	44	11.0	16	6.2	19	10.2	9	9.0
12th grade	179	44.9	120	46.2	80	43.0	41	41.0
Some College	80	20.0	55	21.2	41	22.0	25	25.0
Bachelor's Degree	43	10.8	35	13.5	24	12.9	14	14.0
Graduate Degree	24	6.0	20	7.7	15	8.1	8	8.0
No Answer	3	-	1	0.4	0	0	1	-
Total Responses	400	100.0	260	100.0	186	100.0	100	100.0

Average Educational Level = 12th grade.

Table 7. Size of household of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Household Size	All Respondents		Type of Shopper					
			Roadside Market		Farmers' Market		Pick-Your-Own	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1 - 2 members	190	47.7	104	40.1	87	46.8	30	30.0
3 - 4 members	154	38.7	116	44.8	71	38.2	49	49.0
5 or more members	54	13.6	39	15.0	28	15.0	21	21.0
No answer	2		1	0	0	-	1	0
Total	400	100.0	260	100.0	186	100.0	101	100.0

Average Household Size = 2.91 people.

Table 8. Number of children under 18 living in households of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Number of Children	All Respondents		Type of Shopper					
	Number	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
			Number	Percent	Number	Percent	Number	Percent
0	232	58.0	134	51.7	106	57.0	41	41.0
1	60	15.0	40	15.4	25	13.4	17	17.0
2	67	16.8	56	21.6	34	18.3	27	27.0
3	25	6.2	21	8.1	16	8.6	10	10.0
4	9	2.2	5	1.9	3	1.6	4	4.0
5 and over	3	0.8	3	1.2	2	1.1	1	1.0
No answer	4	-	1	-	0	0	1	-
Total	400	100.0	260	100.0	186	100.0	101	100.0

Table 9. Sex of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Sex	All Respondents		Type of Shopper					
	Number	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
			Number	Percent	Number	Percent	Number	Percent
Female	354	89.2	233	90.3	168	90.3	90.0	90.0
Male	43	10.8	25	9.7	17	9.7	10.0	10.0
No Answer	3		2	-	1	-	1	-
Total Responses	400	100	260	100.0	186	100.0	101	100.0

Table 10. Race of respondents to 400 household telephone survey of fresh fruit and vegetable purchases at direct market outlets by type of shopper, Pennsylvania, 1984.

Race	All Respondents		Type of Shopper					
	Number	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
			Number	Percent	Number	Percent	Number	Percent
White	373	93.9	250	96.9	178	97.3	99	100.0
Black or Afro-American	22	5.5	7	3.1	5	2.7	-	-
Hispanic	0	0	0	0	0	0	0	0
Oriental	0	0	0	0	0	0	0	0
Other	2	0.5	0	0	3	-	2	-
No Answer	3	-	3	-	3	-	2	-
Total	400	100.0	260	100.0	186	100.0	101	100.0

Table 11. Family income of respondents to 400 household survey of fresh fruit and vegetable purchases at direct market outlets, Pennsylvania, 1984.

Income	All Respondents		Type of Shopper					
	Number	Percent**	Roadside Market		Farmers' Market		Pick-Your-Own	
			Number	Percent**	Number	Percent**	Number	Percent**
Under 10,000	42	10.5	18	7.5	14	8.5	4	4.0*
\$10,000 - \$20,000	108	27.1	71	29.7	53	32.1	23	23.0
\$20,000 - \$30,000	103	25.8	98	41.0	65	39.4	55	55.0*
Over \$30,000	103	25.8	52	21.6	33	20.0	14	14.0*
Refused to answer	43	10.7	20	-	21	-	4	-
No Answer	-	-	1	-	-	-	1	-
Total	400	100.0	260	100.0	186	100.0	101	100.0

**Percentage of those answering.

Table 12. Change in respondents use of fresh vegetables and fruits in the past few years by type of shopper, Pennsylvania, 1984.

Responses	All Respondents		Type of Shopper					
			Roadside Market		Farmers' Market		Pick-Your-Own	
Fresh Vegetables	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Increased	169	42.2	135	51.9	94	50.3	51	50.5
Decreased	23	5.8	14	5.4	11	5.9	7	6.9
Stayed the Same	208	52.0	111	42.7	82	43.8	43	42.6
Total	400	100.0	260	100.0	187	100.0	101	100.0
Fresh Fruits								
Increased	181	45.2	135	51.9	94	50.3	58	57.4
Decreased	26	6.5	14	5.4	10	5.3	3	3.0
Stayed the Same	193	48.3	111	42.7	83	44.4	40	39.6
Total	400	100.0	260	100.0	187	100.0	101	100.0

Table 13. Do respondents report using a wider variety of fresh fruits and vegetables by type of shopper, Pennsylvania, 1984.

Responses	All Respondents		Type of Shopper					
			Roadside Market		Farmers' Market		Pick-Your-Own	
Fresh Fruits	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Yes	208	52.0	153	58.8	101	54.0	54	53.5
No	192	48.0	107	41.2	86	45.0	47	46.5
Total	400	100.0	260	100.0	187	100.0	101	100.0
Fresh Vegetables								
Yes	226	56.5	159	61.1	108	57.8	60	59.4
No	174	43.5	101	38.9	79	42.2	41	40.6
Total	400	100.0	260	100.0	187	100.0	101	100.0

Table 14. Consumers' quality rating of fruits and vegetables purchased by type of shopper, Pennsylvania, 1984.

Rating	All Respondents		Type of Shopper					
	No.	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Very Good	106	26.5	67	25.7	48	25.7	32	31.7
Good	220	55.0	146	56.2	101	54.0	55	54.5
Fair	64	16.0	42	16.2	32	17.1	12	11.9
Poor	7	1.8	3	1.1	4	2.1	2	2.0
Don't Know	3	1.8	2	0.8	2	1.1	0	0
Total	400	100.0	260	100.0	187	100.0	101	100.0

Table 15. Consumers' ratings of locally-grown fruits and vegetables, relative to those grown elsewhere by type of shopper, Pennsylvania, 1984.

Ratings	All Respondents (N=400) No. Responses	Type of Shopper		
		Roadside Market (N=260) No. Responses	Farmers' Market (N=187) No. Responses	Pick-Your-Own (N=101) No. Responses
Are more nutritious				
Definitely (WT=3)	152	106	78	47
Maybe (WT=2)	75	55	32	19
Not really (WT=1)	79	46	39	14
Don't know (WT=0)	94	53	38	21
Avg. wt'd score =	1.71	1.82	1.80	1.91
Taste better				
Definitely (WT=3)	224	168	120	75
Maybe (WT=2)	80	48	32	12
Not really (WT=1)	55	25	23	7
Don't know (WT=0)	41	19	12	7
Avg. wt'd score =	2.21	2.40	2.39	2.53
Are fresher and keep better				
Definitely (WT=3)	250	149	108	63
Maybe (WT=2)	58	56	34	17
Not really (WT=1)	60	37	33	15
Don't know (WT=0)	32	18	12	6
Avg. wt'd score =	2.32	2.29	2.27	2.36
Look better				
Definitely (WT=3)	207	181	128	73
Maybe (WT=2)	92	32	23	10
Not really (WT=1)	65	32	26	11
Don't know (WT=0)	36	15	10	7
Avg. wt'd score =	2.18	2.46	2.44	2.48

Table 16. Consumers' ratings of Pennsylvania grown fruits and vegetables compared to those grown in other states by type of shopper, Pennsylvania, 1984.

Ratings	All Respondents		Type of Shopper					
			Roadside Market		Farmers' Market		Pick-Your-Own	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
About the Same	209	52.2	124	47.7	87	46.5	41	40.6
Better	134	33.5	101	38.8	76	40.6	43	42.6
Worse	16	4.0	10	3.8	6	3.2	5	5.0
Don't Know	41	10.2	25	9.6	18	9.6	12	11.9
Total	400	100.0	260	100.0	187	100.0	101	100.0

Table 17. Importance of various factors in fruit and vegetable selection by type of shopper, Pennsylvania, 1984.

Ratings	All Respondents (N=400)	Type of Shopper		
		Roadside Market (N=260)	Farmers' Market (N=187)	Pick-Your-Own (N=101)
	No. Responses	No. Responses	No. Responses	No. Responses
Appearance				
Very important (WT=3)	340	223	157	84
Somewhat important (WT=2)	55	35	29	16
Not important (WT=1)	3	1	0	1
Don't know (WT=0)	2	1	1	0
Avg. wt'd score	2.83	2.84	2.82	2.82
Where it is grown				
Very important (WT=3)	53	33	28	14
Somewhat important (WT=2)	128	90	65	31
Not important (WT=1)	213	133	91	55
Don't know (WT=0)	6	4	3	1
Avg. wt'd score	1.57	1.58	1.63	1.57
Its nutritional value				
Very important (WT=3)	294	194	142	82
Somewhat important (WT=2)	81	51	35	12
Not important (WT=1)	23	14	9	1
Don't know (WT=0)	2	1	1	1
Avg. wt'd score	2.67	2.68	2.70	2.73
Whether it's in season				
Very important (WT=3)	229	157	115	60
Somewhat important (WT=2)	92	55	35	18
Not important (WT=1)	77	47	36	23
Don't know (WT=0)	2	1	1	0
Avg. wt'd score	2.37	2.42	2.41	2.37

Table 17 (con't)

Responses	All Respondents (N=400)	Type of Shopper		
		Roadside Market (N=260)	Farmers' Market (N=187)	Pick-Your Own (N=101)
	No. Responses	No. Responses	No. Responses	No. Responses

Quality

Very important (WT=3)	361	236	173	93
Somewhat important (WT=2)	35	23	13	8
Not important (WT=1)	2	1	0	0
Don't Know (WT=0)	2	0	1	0
Avg. wt'd score	2.89	2.90	2.91	2.92

Whether you can purchase just
the quantity you want

Very important (WT=3)	222	141	112	53
Somewhat important (WT=2)	117	79	48	28
Not important (WT=1)	58	38	25	19
Don't know (WT=0)	3	2	2	0
Avg. wt'd score	2.40	2.38	2.44	2.32

Price

Very important (WT=3)	265	177	125	66
Somewhat important (WT=2)	94	59	43	26
Not important (WT=1)	40	24	19	9
Don't know (WT=0)	1	0	0	0
Avg. wt'd score	2.56	2.59	2.57	2.56

Table 18. Respondents' familiarity with Pennsylvania's "We're Growing Better" Logo by type of shopper, Pennsylvania, 1984.

Responses	All Respondents		Type of Shopper					
	No.	Percent	Roadside Market		Farmers' Market		Pick-Your-Own	
			No.	Percent	No.	Percent	No.	Percent
Familiar with logo								
Yes	141	35.2	98	37.7	76	40.6	46	45.5
No	245	61.2	151	58.1	105	56.2	49	48.5
Not Sure	14	3.5	11	4.2	6	3.2	6	5.9
Total	400	100.0	260	100.0	187	100.0	101	100.0
Of those familiar with the logo, those that have ever bought any food item with it								
Yes	100	70.9	72	73.5	56	73.7	35	76.1
No	10	7.1	5	5.1	5	6.6	5	10.9
Don't Know	31	22.0	21	21.4	15	19.7	6	13.0
Total	141	100.0	98	100.0	76	100.0	46	100.0

Table 19. Respondents' quality rating of produce purchased with the Pennsylvania logo by type of shopper, Pennsylvania, 1984.

Responses	All Respondents (N=100)		Type of Shopper					
	No.	Percent	Roadside Market (N=72)		Farmers' Market (N=56)		Pick-Your-Own (N=35)	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Very Good	43	43.0	33	45.8	24	42.9	18	51.4
Good	45	45.0	29	40.3	25	44.6	14	40.0
Fair	2	2.0	1	1.4	0	0	0	2.9
Poor	2	2.0	2	2.8	2	3.6	1	0.0
Don't Know	8	8.0	7	9.7	5	8.9	2	5.7
Total	100	100.0	72	100.0	56	100.0	35	100.0

Note: Includes only those respondents who purchased items with the Pennsylvania logo.

Table 20. The most frequently mentioned reasons shoppers would and would not be inclined to buy produce with the Pennsylvania Logo, Pennsylvania, 1984.

Why <u>more</u> inclined to buy	Why <u>less</u> inclined to buy
1. Would help support Pennsylvania	1. I look at quality
2. Fresher due to shorter transit time	2. Don't care about logo
3. Support local people and economy	3. I look at prices
4. Help to support Pennsylvania farmers	4. Where its grown makes no difference
5. Better products	5. Out-of-state produce is better
6. Better price if grown locally	
7. Feel product must conform to certain quality standards	

Table 21. Respondent's awareness of advertising for local direct markets and type of advertising, Pennsylvania, 1984.

	Number (N=346)	Percent
Have heard or seen advertising	201	58.1
Of those having seen or heard an ad, the type of ad(s) encountered:		
Newspaper	161	46.5
Radio	48	13.9
Sign along road	36	10.4
Television	19	5.5
Direct Mail	19	3.5
Billboards	12	3.5
Other	2	0.6
Total	297	

Note: Based on responses from respondents who have access to a direct market outlet in their area. Multiple responses possible. N=346.

Table 22. Number of years patrons of any type of direct market have shopped at them, Pennsylvania, 1984.

Years	Number	Percent
1-3	35	11.1
4-6	48	15.2
7-9	13	4.1
10-15	94	29.8
Over 15	119	37.8
No Answer	6	1.9
Total	315	100.0

Note: Based on responses from people who shop at all types of direct markets.

Table 23. Distribution of household members who usually shop at direct markets, Pennsylvania, 1984.

Household member	Number	Percent
Single women	36	11.4
Single men	7	2.2
Wife	89	28.2
Husband	13	4.1
Husband and wife	94	29.8
Wife and children	31	9.8
Husband and children	2	0.6
Whole family	30	9.5
Other	9	2.9
No answer	4	1.3
Total	315	100.0

Note: Based on responses from people who shop at all types of direct markets.

Table 24. Day(s) of the week and times of the day respondents prefer to shop at direct markets, Pennsylvania, 1984.

Preferred day or time	Number
<u>Days of the week</u>	
Monday	18
Tuesday	29
Wednesday	38
Thursday	66
Friday	68
Saturday	66
Sunday	12
Weekends	23
No preference	92
Total	412
<u>Time of the day</u>	
Morning	142
Afternoon	64
Evening	38
No preference	78
Total	322

Note: Multiple responses possible.
Based on responses from people who shop at all types of direct markets.
N=315.

Table 25. Fruits and vegetables usually purchased by direct market shoppers, Pennsylvania, 1984.

Type	Number of responses
Fruits	
Apples	264
Oranges	173
Bananas	158
Peaches	119
Grapes	106
Pears	79
Strawberries	73
Plums	40
Grapefruits	55
Cantaloupe	30
Cherries	25
Blueberries	19
Nectarines	19
Watermelons	19
Melons	12
Other	91
Total	1,282
Vegetables	
Broccoli	141
Tomato	127
Lettuce	125
Cauliflower	121
Corn	112
Green Beans	107
Carrots	105
Potatoes	102
Celery	76
Cabbage	50
Peas	36
Peppers	35
Other	267
Total	1,404

Note: Multiple responses possible.
Based on responses from people who shop at all types of direct markets.
N=315.

Table 26. Disposition of produce for other than immediate consumption by direct market users, Pennsylvania, 1984.

	Disposition						
	Can	Freeze	Preserve	Can and Freeze	Can and Preserve	Freeze and Preserve	All
	----- Number of responses -----						
Tomatoes	72	20	0	4	0	0	1
Green beans	33	55	1	7	0	0	0
Corn	3	72	0	7	0	0	0
Peaches	36	14	2	4	0	1	0
Peas	5	34	0	0	0	0	0
Strawberries	1	20	10	0	1	2	0
Apples	10	11	4	3	0	0	0
Peppers	7	17	0	1	0	0	0
Pears	19	1	0	0	1	0	0
Lima beans	2	19	0	0	0	0	0
Other	43	110	11	5	2	3	0
Total	231	373	28	30	4	5	1

Note: 180 of the 315 users of direct markets indicated they did canning, preserving, and freezing of fruits and vegetables.

Table 27. Comparison of direct markets to supermarkets on the basis of seven characteristics of fruits and vegetables, Pennsylvania, 1984.

Characteristic	Prefer Direct market	Prefer supermarket	No difference	Don't know
-----Number of responses-----				
Appearance of product	207	45	59	4
Cleanliness of market or store	63	140	97	15
Freshness of products	263	11	35	6
Friendly atmosphere	167	19	124	5
Prices (Lower)	199	51	50	15
Quality of products	241	11	59	4
Selection of products	169	104	34	8

Note: Based on responses from people who shop at all types of direct markets.
N=315.

Table 28. Frequency of purchasing supermarket produce when local direct market produce is available, Pennsylvania, 1984.

	Number	Percent
Yes, do purchase at the supermarket	283	89.9
No, do not purchase at the supermarket	32	10.1
Total	315	100.0
If yes, the frequency of supermarket purchases		
Once a week	163	57.6
Two times a week	45	15.9
Three times a week	7	2.5
Four times a week	2	0.7
Once a month	20	7.1
Two times a month	37	13.1
Three times a month	2	0.7
Four times a month	1	0.3
Once a year	2	0.7
Don't know	4	1.4
Total	283	100.0

Note: Based on responses from people who shop at all types of direct markets.
N=315.

Table 29. One-way distance traveled to the roadside market usually visited, Pennsylvania, 1984.

Distance	From Home
	-----Number of responses-----
Less than 5 miles	144
5 to 10 miles	70
10 to 15 miles	15
15 to 20 miles	3
20 to 25 miles	4
25 to 30 miles	2
Over 30 miles	3
Don't know/no answer	19
Total	260

Note: Based on responses from roadside market users.

Table 30. Average amount respondents spent during each visit to their local roadside stand, Pennsylvania, 1984.

Amount spent (\$)	Number	Percent
Less than 2	1	0.4
2-3.99	14	5.4
4-5.99	56	21.5
6-7.99	67	25.8
8-9.99	55	21.2
10-11.99	35	13.5
12-14.99	16	6.2
More than 15	12	4.6
Don't know	4	1.5
Total	260	100.0

Note: Based on responses from roadside market users.
Average purchase = \$6 - \$7.99.

Table 31. Best- and least liked features of produce purchased at roadside markets, Pennsylvania, 1984.

Response	Number
<u>Liked best</u>	
Freshness/non-prepackaged	175
Quality	72
Can choose the ones you like	27
Good selection	18
Good prices	17
Good atmosphere	16
Convenience	13
Locally grown	12
Other	21
No answer	21
Total	377
<u>Liked least</u>	
Not clean	8
Limited selection	7
Poor quality	6
Inconvenient	6
Uninformed workers	5
Must clean produce	4
No answer	233
Total	269

Note: Multiple responses possible.
Based on responses from roadside market users.
N=260.

Table 32. One-way distance traveled to the farmers' market usually visited, Pennsylvania, 1984.

Distance in miles	From home
Number of Respondents	
Less than 5	105
6-10	43
11-15	14
16-20	7
21-25	3
26-30	2
More than 30	4
No answer/don't know	9
Total	187

Note: Based on responses from farmers' market users.
N=187

Table 33. Average amount respondents spent during each visit to their local farmers' market, Pennsylvania, 1984.

Amount spent (\$)	Number	Percent
Less than 2	0	0
2-3.99	10	5.3
4-5.99	28	15.0
6-7.99	34	18.2
8-9.99	35	18.7
10-11.99	22	11.8
12-14.99	16	8.6
More than 15	39	20.9
Don't know	3	1.6
	187	100.0

Note: Based on responses from farmers' market users.
 Average purchase = \$8-9.99.
 N=187.

Table 34. Best- and least-liked features of produce purchased at farmers' markets, Pennsylvania, 1984.

<u>Liked best</u>	<u>Number</u>
Non-packaged/freshness	101
Quality	40
Good variety	36
Select your own	21
Low prices	18
Nice atmosphere	13
Nothing	10
Other	33
Total	272
<u>Liked least</u>	
Nothing	139
Too crowded	13
Not clean	7
Prices too high	4
Poor parking	4
Too far away	4
Other	25
Total	196

Note: Multiple responses possible.
Based on responses from farmers' market users.
N=187.

Table 35. One-way distance traveled to the pick-your-own outlet usually visited, Pennsylvania, 1984.

Distance in miles	From home
-----Number of responses-----	
Less than 5	40
6-10	27
11-15	12
16-20	10
21-25	2
26-30	3
More than 30	2
 Don't know	 2
 No answer	 3
 Total	 ----- 101

Note: Based on responses from pick-your-own outlet customers.

Table 36. Average amount respondents spent during each visit to their local pick-your-own outlet, Pennsylvania, 1984.

Amount spent (\$)	Number	Percent
Less than 2	0	0
2-3.99	1	1.0
4-5.99	13	12.9
6-7.99	12	11.9
8-9.99	18	17.8
10-11.99	20	19.8
12-14.99	20	19.8
More than 15	15	14.8
Don't know	2	2.0
Total	101	100.0

Note: Based on responses from pick-your-own outlet users.
Average purchase = \$10-11.99.

Table 37. Best- and least-liked features of produce purchased at pick-your-own outlets, Pennsylvania, 1984.

Response	Number
<u>Liked best</u>	
Can choose which ones and amount you want to buy	52
Freshness	31
Good prices	25
It's fun	10
Quality	9
The satisfaction of picking your own	9
Other	10
Total	146
<u>Liked least</u>	
Nothing	77
It's hard work	13
Other	12
Total	102

Note: Multiple responses possible. Based on responses from pick-your-own outlet users.
N=101.

APPENDIX A: QUESTIONNAIRE

Household # _____

Time Interview Began _____ a.m. _____ p.m.

Time Interview Ended _____ a.m. _____ p.m.

**Penn State Fruit and
Vegetable Buying Study**

Good morning/afternoon/evening. I'm _____ calling you as part of a survey being conducted by Penn State University. We are studying the fruit and vegetable buying habits of shoppers all over Pennsylvania. Your telephone number was drawn at random. We'd like to have your cooperation to make our study complete. Your answers will be kept completely confidential. Would you help us in our study?

- 2 -

1. Could I ask how often you are personally responsible for the weekly grocery buying?
 1. Always or nearly always
 2. Usually
 3. Sometimes
 4. Rarely
 5. Never

Skip to Question 3
2. May I speak to the person in your household most responsible for grocery shopping?
 1. Yes (Repeat from beginning)
 2. No, not home (Reschedule interview)
 3. Not available at future date (Terminate)
3. In the past few years has your household's use of fresh fruits:
 1. Increased,
 2. Decreased, or
 3. Stayed the same
4. Is your household using a wider selection of fresh fruits than it did a few years ago?
 1. Yes
 2. No
5. Has your household's use of fresh vegetables:
 1. Increased,
 2. Decreased, or
 3. Stayed the same
6. Is your household using a wider selection of fresh vegetables than it did a few years ago?
 1. Yes
 2. No
7. Overall, how would you rate the quality of the fresh fruits and vegetables you have bought? Would you say they were:
 1. Very good,
 2. Good,
 3. Fair, or
 4. Poor
 5. Don't know

8. Would you say that fruits and vegetables which are grown locally:

	<u>Definitely</u>	<u>Maybe</u>	<u>Not Really</u>	<u>Don't Know</u>
1. Are more nutritious	3	2	1	0
2. Taste better	3	2	1	0
3. Look better	3	2	1	0
4. Are fresher and keep better	3	2	1	0

9. Overall, how do you think the fruits and vegetables grown in Pennsylvania compare with those of the same kind that are from out of state? Would you say they were:

1. About the same,
2. Better, or
3. Worse
4. Don't Know

10. When you buy fresh fruits and vegetables, how important are each of the following factors in deciding what you'll buy?

	<u>Very Important</u>	<u>Somewhat Important</u>	<u>Not Important</u>	<u>Don't Know</u>
1. The appearance of the product	3	2	1	0
2. Where it was grown	3	2	1	0
3. It's nutritional value	3	2	1	0
4. Whether it's in season	3	2	1	0
5. Quality	3	2	1	0
6. Whether you're able to buy the exact amount you want	3	2	1	0
7. Price	3	2	1	0
8. Other _____	3	2	1	0

11. Would you be willing to pay something extra for organically grown fruits and vegetables? (i.e., grown with no chemicals, pesticides, etc.)

1. Yes
2. No
3. Not sure

12. Do you or any member of your household grow any fruits or vegetables?

1. Yes
2. No

13. Do you usually make a shopping list before going grocery shopping?
1. Yes
 2. No (Skip to 15)
14. Does your list usually include specific fruits and vegetables?
1. Yes
 2. No
15. Are you familiar with the seal used on Pennsylvania-produced food products--I'm talking about the one with the outline of the state and the big letters "PA" inside--?
1. Yes
 2. No (Skip to 19)
 3. Not sure (Skip to 19)
16. Have you ever bought any food products with the "Pennsylvania product" seal on them?
1. Yes
 2. No (Skip to 19)
 3. Not sure (Skip to 19)
17. What products have you bought? _____

18. How would you rate the quality of the food products with the "Pennsylvania-product" seal that you've had?
1. Very good
 2. Good
 3. Fair
 4. Poor
19. If the fruits and vegetables you found in the market had a "Pennsylvania-product" seal on them, would you be more inclined to buy them?
1. Yes
 2. No
 3. Not sure

20. Why do you feel that way?

Fresh fruits and vegetables are available at a number of different markets in Pennsylvania. In addition to buying them at the supermarket, some shoppers buy fruits and vegetables directly from farmers at direct markets. We'd like to ask you some questions about 3 types of markets where fresh fruits and vegetables can be purchased directly from the farmer.

- 21. One type of direct market is a roadside market, where fruits and vegetables are sold from a stand or building usually located beside a road or highway. Can you tell me if you know of any roadside markets in your area?
- 22. Another type of direct market is a farmer's market, where a group of farmer's sell what they've grown at one central location? Do you know of any farmer's markets in your area?
- 23. And a third type of direct market is a pick-your-own operation, where the customer actually picks or harvests fruits or vegetables at a farm. Do you know of any pick-your-own operations in your area?

YES	NO

IF AT LEAST 1 YES IS CHECKED -- CONTINUE

OTHERWISE -- SKIP TO GREEN SECTION

24. Have you ever seen or heard advertising for any of the direct markets in your area?

1. Yes

2. No

3. Don't know

Skip to Question 26

25. Where did you see or hear these ads? (Circle all which apply)

1. Signs along the road

2. Billboards

3. Mailed circulars, flyers, or postcards

4. Local newspapers

5. Radio

6. Television

7. Other _____

26. When local fruits and vegetables are in season, do you ever shop at a roadside market, a farmer's market, or a pick-your-own operation?

1. Yes (Skip to PINK section)

2. No (Continue)

27. What's your main reason for not shopping at the direct markets in your area?

28. Are there any other reasons? _____

29. What changes, if any, could the operators who run direct markets make to get you to shop there?

30. Although you don't usually buy fresh fruits and vegetables at direct markets, we'd like to know how you feel direct markets and supermarkets compare. When fruits and vegetables are in season, do you feel direct markets or supermarkets are better as far as:

Characteristics	WHICH DO YOU FEEL IS BETTER?			
	Direct Markets	Supermarket	No Difference	Don't Know
Appearance of Products	1	2	3	4
Cleanliness of Market or Store	1	2	3	4
Freshness of Products	1	2	3	4
Friendly Atmosphere	1	2	3	4
Prices (Lower)	1	2	3	4
Quality of Products	1	2	3	4
Selection of Products	1	2	3	4

We are interested in finding out what types of fruits and vegetables Pennsylvania consumers usually buy.

31. When available, what fruits do you buy most often?

fruits

32. When available, what vegetables do you buy most often?

vegetables

33. Do you or any member of your household can, freeze, or preserve any fruits or vegetables?

- 1. No (Skip to YELLOW section)
- 2. Yes

which ones?	<u>CAN</u>	<u>FREEZE</u>	<u>PRESERVE</u>
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3

SKIP TO YELLOW SECTION

- 10 -

38. Do you or any member of your household can, freeze, or preserve any fruits or vegetables?

1. No (Skip to YELLOW section)
2. Yes

Which ones?	<u>CAN</u>	<u>FREEZE</u>	<u>PRESERVE</u>
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3
_____	1	2	3

SKIP TO YELLOW SECTION

39. Including 1984, how many years have you been visiting direct markets?

_____ Years

40. What members of your household usually go on shopping trips to direct markets?

41. What days of the week do you prefer to shop at direct markets?
(Circle all which apply)

1. Monday
2. Tuesday
3. Wednesday
4. Thursday
5. Friday
6. Saturday
7. Sunday
8. Weekends
8. No preference

42. Are there any particular times of the day that you like to shop at these markets? (Circle all which apply)

1. Mornings
2. Afternoons
3. Evenings
4. No preference

43. We'd like to know how you feel direct markets and supermarkets compare. When fruits and vegetables are in season, do you feel direct markets or supermarkets are better as far as:

Characteristics	WHICH DO YOU FEEL IS BETTER?			
	Direct Markets	Supermarket	No Difference	Don't Know
Appearance of Products	1	2	3	4
Cleanliness of Market or Store	1	2	3	4
Freshness of Products	1	2	3	4
Friendly Atmosphere	1	2	3	4
Prices (Lower)	1	2	3	4
Quality of Products	1	2	3	4
Selection of Products	1	2	3	4

44. When fruits and vegetables are in season, how often do you buy them at the supermarket?

- 1. Never
- 2. _____ times per _____ week
 _____ month
 _____ year

45. Remember that we said a roadside market is a market where farm products are sold from a stand or building beside a road. When fruits and vegetables are in season, how often do you shop at a roadside market?

- 1. Never (Go to BLUE Section)
- 2. _____ times per _____ week
 _____ month
 _____ year

46. How did you first become aware of the roadside market you normally visit?

47. How do you find out what products are available at the roadside market you normally visit?

48. How many miles do you travel, one way, to get to the roadside market you normally visit?

_____ miles

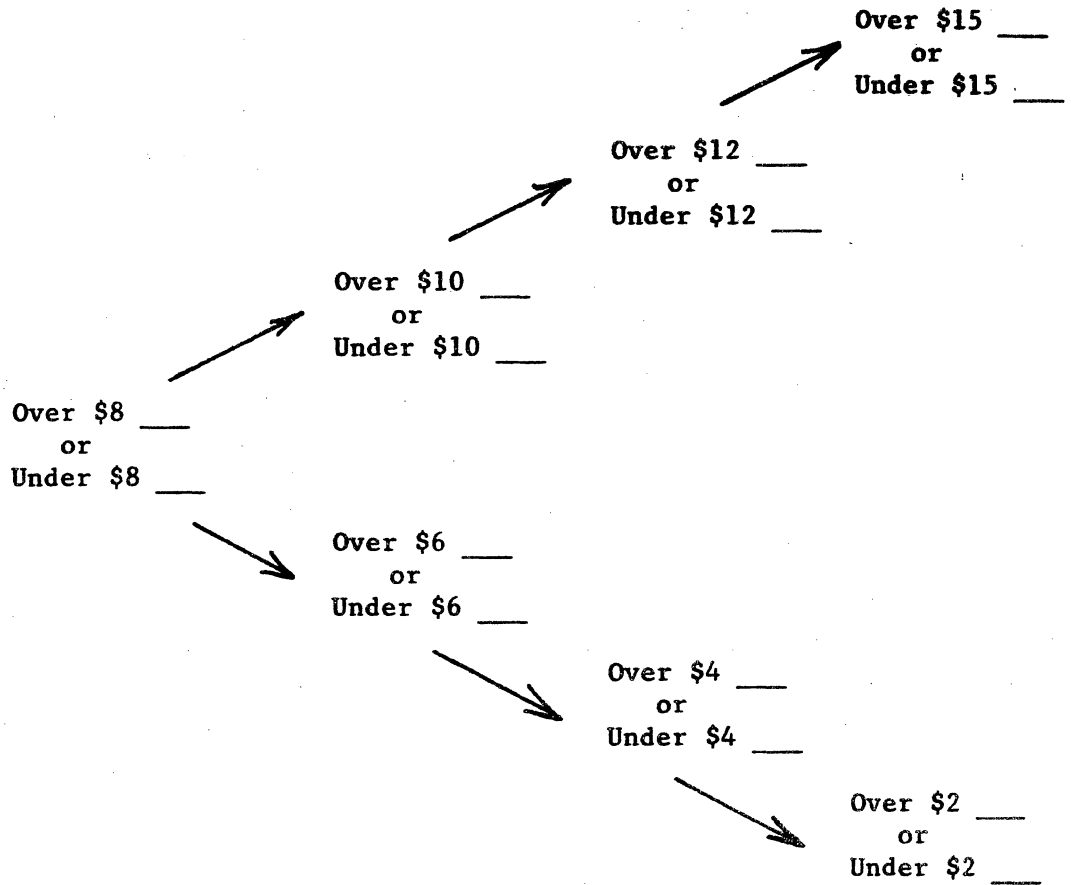
If stopping from work

_____ miles

49. How do you feel the prices of fruits and vegetables at roadside markets compare with prices at the supermarket?

1. About the same
2. Lower
3. Higher
4. Don't know

50. On average, how much do you spend at each visit when you buy fruits and vegetables at a roadside market? Would you say that you spend:



51. What would you say you like best about buying fresh fruits and vegetables at roadside markets?

52. Is there anything you don't like about buying fresh fruits and vegetables at roadside markets?

- 15 -

53. What changes, if any, could the operator of the roadside market you visit make to get you to shop there more often?

54. Do you buy any products other than fruits and vegetables at the roadside market?

1. No (Skip to question 56)
2. Yes

55. What do you buy?

56. In the future, do you expect to buy?

1. More,
2. Less, or
3. About the same amount of fruits and vegetables at the roadside market you normally visit?

CONTINUE TO BLUE SECTION

- 16 -

57. Remember that we said a farmer's market is a market where a group of farmer's sell what they've grown. When fruits and vegetables are in season, how often do you shop at a farmer's market?

1. Never (Go to WHITE Section)
2. _____ times per _____ week
 _____ month
 _____ year

58. How did you first become aware of the farmer's market you normally visit?

59. How do you find out what products are available at the farmer's market you normally visit?

60. How many miles do you travel, one way, to get to the farmer's market you normally visit?

_____ miles

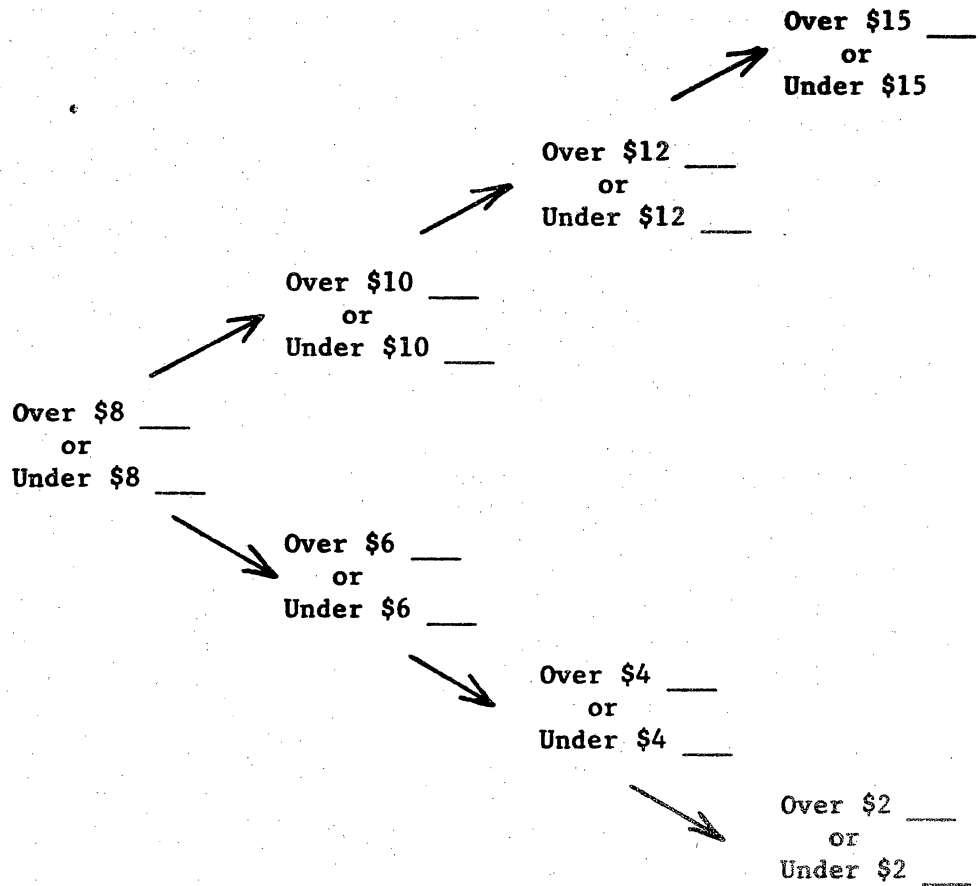
If stopping from work

_____ miles

61. How do you feel the prices of fruits and vegetables at farmer's markets compare with prices at the supermarket?

1. About the same
2. Lower
3. Higher
4. Don't know

62. On average, how much do you spend at each visit when you buy fruits and vegetables at a farmer's market? Would you say that you spend:



63. What would you say you like best about buying fresh fruits and vegetables at farmer's markets?

64. Is there anything you don't like about buying fresh fruits and vegetables at farmer's markets?

65. What changes, if any, could the sellers at the farmer's market you visit make to get you to shop there more often?

66. Do you buy any products other than fruits and vegetables at the farmer's market?

1. No (Skip to question 68)
2. Yes

67. What do you buy?

68. In the future, do you expect to buy:

1. More,
2. Less, or
3. About the same amount of fruits and vegetables at the farmer's market you normally visit?

CONTINUE TO WHITE SECTION

69. Remember that we said the customer actually picks or harvests fruits or vegetables at a pick-your-own operation. When fruits and vegetables are in season, how often do you shop at a pick-your-own operation?

1. Never (Go to YELLOW Section)

2. _____ times per _____ week
_____ month
_____ year

70. How did you first become aware of the pick-your-own operation you normally visit?

71. How do you find out what products are available at the pick-your-own operation you normally visit?

72. How many miles do you travel, one way, to get to the pick-your-own operation you normally visit?

_____ miles

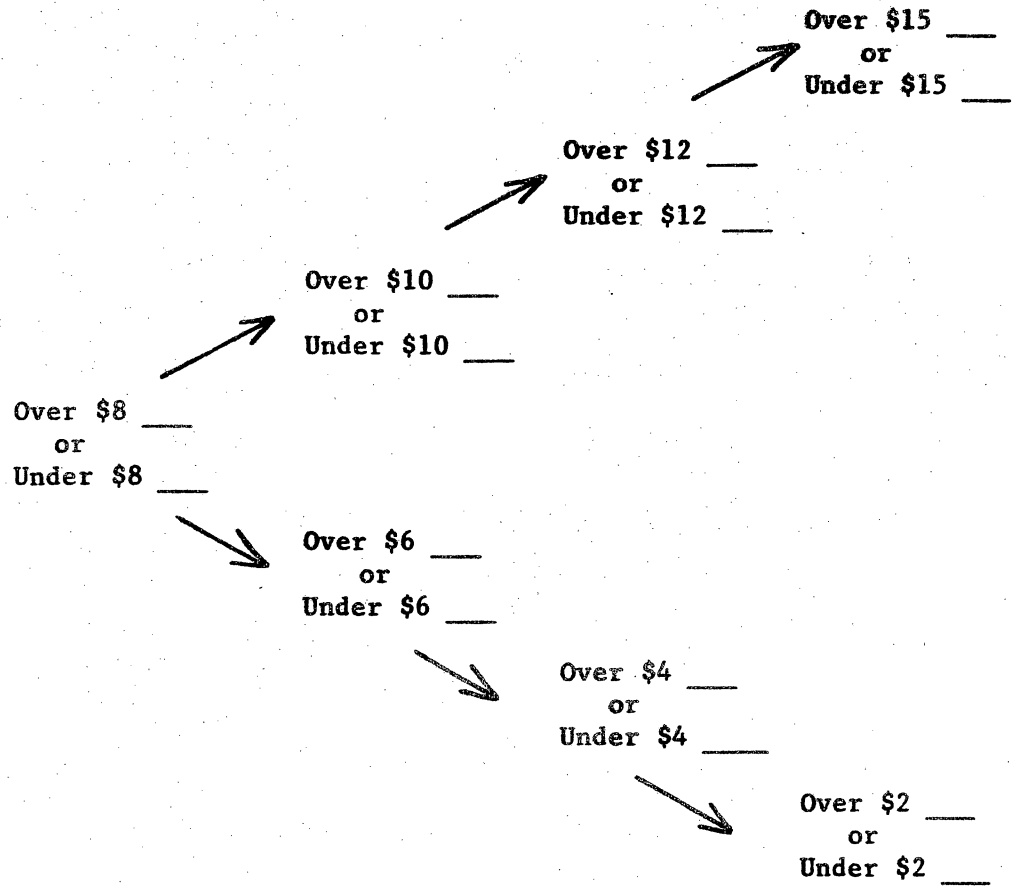
If stopping from work

_____ miles

73. How do you feel the prices of fruits and vegetables at pick-your-own operations compare with prices at the supermarket?

- 1. About the same
- 2. Lower
- 3. Higher
- 4. Don't know

74. On average, how much do you spend at each visit when you buy produce at a pick-your-own operation? Would you say that you spend:



75. What would you say you like best about buying fresh fruits and vegetables at pick-your-own operations?

76. Is there anything you don't like about buying fresh fruits and vegetables at pick-your-own operations?

77. What changes, if any, could the operator of the pick-your-own operation you visit make to get you to shop there more often?

78. When available, what fruits or vegetables do you harvest at pick-your-own operations?

79. In the future, do you expect to buy:

1. More,
2. Less, or
3. About the same amount of fruits and vegetables at the pick-your-own operation you normally visit?

Finally, we'd like to ask you a few brief questions about you and your family.

80. What is the name of the town or city in which you live? _____

81. Would you describe the area in which you live as:

1. Open country or farm
2. Small town less than 2,500
3. Town 2,500 - 50,000
4. Small city 50,000 - 100,000
5. Large city 100,000 +

82. How many years have you lived in the area? _____ years

83. May I ask your age? _____

84. Are you presently:

1. Married
 2. Divorced
 3. Separated
 4. Widowed
 5. Never married
- Skip to question

85. Is your spouse currently employed full-time or part-time?

1. Full-time
2. Part-time
3. Not employed
4. Retired

86. Are you currently employed full-time or part-time?

1. Full-time
2. Part-time
3. Not employed
4. Retired

87. What is the highest grade you finished in school?

1. 1st - 8th grade
2. 9th - 11th grade
3. 12th grade
4. Some college
5. Bachelor's degree
6. Graduate degree

88. How many people live in your household including yourself?

89. How many children under 18 live in your household?

90. Sex of respondent:

1. Male
2. Female

91. Would you describe yourself as

1. White
2. Black or Afro-American
3. Hispanic
4. Oriental
5. Other (specify) _____

92. Is your entire family income:

