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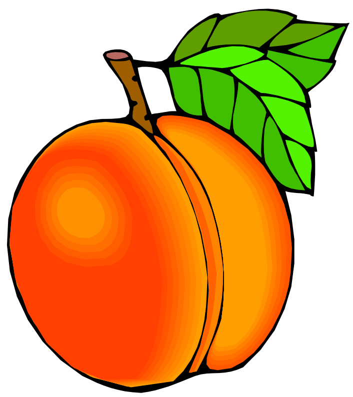
Consumer Preferences and Marketing Opportunities for Premium "Tree-Ripened Peaches" in New York State



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Executive Summary

Fruit growers in New York State are adding alternative fruit crops to their production acreage in an effort to diversify their apple orchards. Peach (*Prunus persica L.*) is a major crop used for that purpose because of the collaboration between growers and the Cornell Agricultural Experiment Station to develop new varieties that possess higher eating quality and more eye-appealing characteristics for the consumer market and because they are suitable for the growing environment in New York State. The goal of this study is to explore consumer interests in New York-grown premium tree-ripened peaches and develop strategic marketing recommendations on how the New York stone fruit industry can expand markets for these peaches.

This research is divided into two parts: a qualitative study (focus group discussion) and a quantitative study (consumer phone survey). The purpose of the focus groups was to obtain in-depth responses from consumers on their attitudes and purchase behaviors for fruit, peaches and New York-grown premium tree-ripened peaches. The consumer phone survey was designed to verify results from the focus group discussion among the general population and to determine consumers' interests and willingness to pay a higher price for "quality-guaranteed premium tree-ripened peaches."

The focus groups and consumer phone surveys show that consumers, especially frequent fruit shoppers, are generally very interested in good quality peaches as well as "quality-guaranteed premium tree-ripened peaches". Although it is usually recognized that good quality tree-ripened peaches are available at farm stands or farmers' markets, they appear to be less available in the supermarkets where respondents in this study typically shop. This presents an opportunity for New York stone fruit growers to supply good and consistent quality fresh peaches through the supermarket channel.

Peaches are prized for their juiciness, sweetness, and good flavor. However, consumers are frustrated by the difficulty they perceive in selecting peaches at the proper ripening stage to get the qualities they like. Quality and consistency of the product are key factors for consumer satisfaction, and a high level of satisfaction, in turn, increases consumer demand and repeat purchases for fresh peaches. If quality and consistency exist, consumers seem to be willing to pay higher prices and buy fewer peaches in order to get the product they like.

Most consumers in this study recognized New York State as a region where peaches are grown and referred to these peaches as "local" or "homegrown." Awareness of these shoppers about peaches grown in New York and their "local" nature clearly constitutes an advantage to build on when marketing New York-grown peaches. However, there are challenges when designing a marketing program to receive a premium price for high quality New York-grown tree-ripened peaches. Many consumers could not correctly identify tree-ripened peaches, and some expected a lower price for locally grown products. Moreover, some focus group participants viewed California peaches as larger and Pennsylvania peaches as more flavorful and predictable than New York peaches.

Therefore, when promoting "quality-guaranteed New York-grown premium tree-ripened peaches" through the supermarkets channel, a good position statement, innovative packaging, and clear labeling at the point of purchase will be the major means of informing and influencing a potential buyer. It should emphasize high quality and be used as boldly and as creatively as possible to justify the higher price and stimulate sales for the "New York-grown quality-guaranteed premium tree-ripened peaches".

Moreover, given the narrow marketing window when fresh New York peaches are available and the excitement the arrival of the peach season appears to generate, both run-of-the-crop and premium varieties can benefit from intensive promotion of their arrival. Results from this study show that demographic factors generally do not affect consumer behavior in terms of purchasing peaches or tree-ripened peaches. Therefore, promotional programs targeting specific consumer groups are not necessary. Generating consumer satisfaction through good and consistent quality products is the key to successfully marketing "New York-grown quality-guaranteed premium tree-ripened peaches."

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SECTION I: INTRODUCTION

Background and Justification

Increased global supply has intensified competition in all agricultural sectors. Many farming operations in the Northeastern United States that rely on sales of agricultural commodities such as dairy, small grains, apples, and cranberries are increasingly stressed by low crop prices, land development pressure and lack of diversification. Due to the financial set-backs in the apple and cranberry industries in recent years and the gradual loss of market shares of various fruit commodities to West Coast industries, many Northeast fruit growers and processors are looking into developing markets for specialty stone fruit crops and are pioneering efforts with new crops like plumcots, pluots, and specialty peaches, cherries, and plums (Anderson 2003). Efforts to differentiate and add value to products, exploit profitable niche markets, and support sustainable agriculture are keys to the survival of agriculture in the Northeast.

Apple is a major fruit crop in New York State, with a $146 million production value or 68% of total fruit production in 2003 (New York Agriculture Statistics Service, 2004). Due to the depressed apple market situation, peaches are frequently chosen by apple growers to diversify their production and improve farm profitability, and peaches are also the most important stone fruit produced in New York State and in the U.S. (USDA 2003a). Therefore, peach (*Prunus persica L.)* is chosen as the focus of this project. Cornell University has an on-going multi-state and multi-discipline effort in stone fruit research, and the Cornell Agricultural Experiment Station in Geneva, New York has worked closely with growers to develop the best fresh peach varieties that are best for the New York growing environment and possess higher eating quality and more eye-appealing characteristics for the consumer market.

However, marketing fresh peaches presents challenges. Peach consumption in the U.S. has remained stagnant or declined over the past decade at around 10 pounds per capita, about half of which is consumed in fresh form (USDA 2003b). Fresh peaches are highly perishable, susceptible to fruit rot, and sensitive to rough handling and long-distance transportation. Therefore, fresh peaches shipped often arrive at supermarkets around the country bruised and otherwise lacking in appealing appearance and flavor. As a result, the product offered in supermarkets often fails to meet consumer expectations and generates little or no enthusiasm for repeat purchases. Fresh peach is often considered a summer fruit by consumers; hence, it has a shorter marketing season, compared with other major fruit such as apples and bananas.

Most of New York-grown fresh peaches are currently distributed through direct marketing outlets (farm stands, farmers' markets, etc.). These marketing channels have proven to be viable outlets for the New York growers for marketing their peaches. However, as growers add peach acreage in an effort to grow or diversify their business, many growers realized peach production that exceeds the capacity of their local direct marketing channel. This means that growers need to develop additional distribution channels for the added production. The Northeast region offers premier marketing opportunities along the Washington, D.C. to Boston corridor. However, local stone fruit appears to have only a small share of this market at present. Moreover, consumers increasingly demand high quality, natural food products, especially those perceived as having gourmet appeal or health benefits. Thus, the market for high quality, locally-grown stone fruit in the Northeast is probably grossly underdeveloped. Moreover, most of the marketing challenges facing the peach industry also represent marketing opportunities for specialty peaches grown in New York State, provided that growers can deliver fresher and better tasting peaches to retailers and consumers in the Northeast.

According to a discussion with the New York Stone Fruit Growers Association, fresh peach production in New York State -- with new varieties developed by the Cornell Agricultural Experiment -- is starting to supply large enough volumes that retail chain stores could be a viable distribution channel for growers. Moreover, New York peach growers have the competitive advantage of shorter transportation distance, compared to West Coast suppliers, so they will be able to supply better quality, tree-ripened peaches. Retailers may also benefit from marketing "**locally grown premium peaches**." This is a potentially lucrative market incubating for the New York peach industry, but exploiting it, as always, demands an understanding of consumers in that market.

Objective

This report grew out of a project to improve understanding of consumer responses to fresh peach products produced in New York State. The potential market for New York-grown premium tree-ripened fresh peaches was examined and consumer preferences for a new peach variety developed by scientists at Cornell University were tested.

Specific objectives are to:

1. Study consumer preferences for various fresh peach attributes relative to other fresh fruit available to them in the supermarket.
2. Determine consumer reaction to the New York-grown premium tree-ripened peaches and their interest in purchasing these peaches.
3. Identify market conditions including competitive advantages and product differentiation opportunities for New York-grown premium tree-ripened fresh peaches.
4. Develop strategic marketing recommendations for New York stone fruit growers to develop the retail market for New York-grown premium tree-ripened peaches.

Organization of This Study

This research is divided into two parts: 1) a qualitative study - focus group discussions and 2) a quantitative study - consumer phone survey. The purpose of the focus groups was to compare consumer attitudes and purchase behaviors for fruit, peaches, and New York-grown premium tree-ripened peaches in particular. Since results from qualitative studies are difficult to generalize from, the results from the focus group discussions were used as the base to provide directions for a more detailed and quantitative research – the consumer phone survey. The consumer phone survey was designed to better understand consumers' purchase preferences for fresh peaches and determine consumers' interests and willingness to pay for "quality-guaranteed premium tree-ripened peaches" while controlling for key demographic features of the consumer base.

SECTION II: EXPLORING CONSUMER ATTITUDES
- THE FOCUS GROUP RESEARCH

Introduction

In marketing research, qualitative studies, such as focus groups, allow researchers to explore consumer behavior in depth. Focus groups are often used to identify potential opportunities and understand the basis of consumer preferences and actions when developing new markets. Because of the small number of participants (6 - 12 per focus group), focus group research is not a source of statistically reliable data to project to the broader consumer population. It is typically used to answer "why" questions, but not "how many" (Greenbaum, 1993).

The purpose of the focus groups in this study is to assess consumer attitudes and purchase behaviors for fresh fruit, fresh peaches, and "New York-grown premium tree-ripened peaches". We wanted to understand the roles fresh fruit, in general, and peaches, in particular, play in nurturing families. We also wanted to determine consumer awareness and knowledge of peaches, the ways in which peaches are consumed, and impediments and inducements to buying more peaches. Finally, we explored consumer reactions to "New York-grown premium tree-ripened peaches" when presented next to a common West Coast peach variety and California tree-ripened peaches purchased from the supermarket.

Methodology

Two 2-hour focus groups were conducted with target consumers in August 2001. The meetings were held in Rochester, New York at a central interviewing facility equipped for focus group research with screening areas, conference rooms, observation rooms, and recording equipment. All participants were offered an incentive of $50 for their participation.

Each group consisted of six mothers of children five to 11 years old. Additional screening criteria included:

- Participants personally and purchased fresh fruit and vegetable for their families in a supermarket.
- Participants purchased three or more varieties of fresh fruit, including peaches, at least twice in the previous three months for their families to consume.
- In each group, the educational level of participants ranged from high school graduates to those who received post-college education.
- In each group, the employment status of participants included women working full-time, part-time, and not working outside the home.

- In each group, the household income levels of participants were spread across a range of $25,000 to $75,000 and over.
- No one with a household connection to a marketing or graphic arts firm or to a company that distributes or sells fruit or processed fruit products could participate.
- No one with experience with research on any food or beverage product could participate.
- No one with experience with any type of marketing research in the past three months could participate.

The screening guide used to recruit and select participants is included as Appendix 1. During recruitment, each participant was also subjected to an articulation question, which was used to assess potential participants' abilities to describe themselves and express preferences verbally. Recruiting and screening of participants was provided by staff associated with the research facilities where the focus groups were held[1].

The focus groups were led by a professional moderator, Mr. Richard Donovan of Donovan & Associates, and observed by the Cornell research team. A discussion guide for the focus groups was developed by the Cornell researchers in conjunction with the moderator. A copy of the discussion guide is included as Appendix 2. In general, the discussion was designed to cover:

- Consumption of and attitudes towards fresh fruit
- Consumption of and attitudes towards fresh peaches
- Reactions to appearance and taste of:
    - Common peaches purchased in the supermarket – labeled "C"
    - Premium-priced tree-ripened peaches from California – labeled "P"
    - Tree-ripened peaches from New York – labeled "L"

The prototype New York-grown tree-ripened peaches used were the variety Famin'Fury (PF24-007), which was provided by the Cornell Agricultural Experiment Station and produced by Red Jacket Orchard in Geneva, New York. The prototype variety was selected because it was identified by horticulturists at Cornell University and grower representatives as having a high eating quality and good eye-appealing characteristics (red skin), is currently available in commercial production, and well suited to the New York growing environment. Given all these favorable characteristics, this variety was used in the focus group to explore consumer reactions and market potential for New York-grown premium tree-ripened peaches.

The moderator recorded the focus group discussions on audio tapes. Each session was transcribed from the tapes. The moderator analyzed the transcript and submitted a summary report to the Cornell research team based on the information from the tapes, his observations of the sessions, and past experience in similar research projects.

[1] The sessions were held at the facility of Cunningham Research. Arrangements with the facility were made by the moderator.

Results and Analysis

As discussed above, the results drawn from focus group sessions should not be interpreted as a statistically valid representation of the target populations as a whole. Instead, the results offer detailed observations from a limited sample on consumer behaviors and allow identification of issues and opportunities for further research. With this caution in mind, this section reviews the major themes uncovered through the focus group discussions.

The section below also includes some quotes from the participants when the inclusion enhances our understanding of the results. The quotes are taken directly from the focus group transcripts. Most statements did not require clarification, but when needed, clarifications are made in parentheses. It should be noted that the statements were made in a casual conversation. In some cases, the reader might find a statement to be factually incorrect. Some factual errors are expected in this type of discussion, and they can offer valuable data regarding potential consumer misperceptions of a product or a message. Again, although these quotes are accurate, as described above, they do not necessarily represent the thoughts of the target population of consumers at large.

Consumer Use and Attitude Toward Peaches

In both focus group sessions, most of the participants said that they began to eat peaches when they were children, and their associations were varied but generally pleasant. Several remembered their mothers canning peaches, and others remembered how they were prepared:

- "I can see jars of peaches after mom had finished canning them and making peach ice cream from scratch."
- "I remember my grandmother cut them up in a bowl."
- "My mom used to sprinkle sugar on them (*several agreed)* that will bring out more of the juice."
- "Eating them and dripping all over and trying to get to the big pit."
- "With Ice cream..."
- "On cereal…"

When asked to describe what they like about peaches, participants pointed to their sweet and juicy taste as the highest valued features, but color, texture (soft), aroma, vitamins, and size are also liked. However, juiciness can also be a problem. Some participants mentioned that "peaches can be messy, too juicy." On the other hand, participants all agreed with the comment that "there is nothing worse than biting into a peach and not getting the juice." One participant commented that "sometimes you can get a peach that's not very juicy, that's kind of dry, and that turns me off for a while."

When asked what they don't like about peaches, the fuzziness of the skin was mentioned most often. Some peel the skin before eating a peach. Other factors mentioned included unpredictable taste and eating quality, excessive juiciness, cost, and the pits. They said:

- "Peaches are a real tricky fruit because you buy them sometimes, and they are not ripe. Then you have to put them in a brown paper bag. Sometimes in two days they are just perfect, but if you don't eat them that day, the next day they are spoiled, or sometimes they spoil before they get ripe."
- "They can feel ripe and look ripe, so you get it home and cut into it, and it's a big disappointment… not juicy."
- "They are too messy. I don't eat them at work."

The women indicated they would eat more peaches if the peaches were available (all year round or for a longer season), had good and consistent quality, were more ready-to-eat (peeled and pitted), had more consistent quality, longer shelf-life, less fuzz, and were packaged as dry fruit.

According to participants in the focus groups, the ideal "firmness" of peaches is when they have a little "bounce" to them, a little "give". They indicated that when the peaches feel hard they "know" that the fruit is never going to get sweet. Likewise, the focus group participants reported that color is one of the key elements they use in their purchase decision. They concluded that the peaches should have no green on them and should have a shade of red, pink or orange-yellowish color, but never a uniform color. These participants also reported they prize the sweet and juicy taste in peaches, as well as the aroma, size, and vitamins.

The participants from both groups agreed on five characteristics of the ideal peach:

- Juicy but not messy
- Available all the time
- Good eye appeal
- Longer shelf life
- Nutritious

<u>Consumer Knowledge of Where Peaches are Grown and Varietal Differences</u>

Participants in the focus groups showed little knowledge on the different varieties of peaches in the market and on the production areas in the country. However, most of them recognized New York as a region where peaches are grown and referred to these peaches as "local" or "homegrown". It should be noted that the focus groups were held in Rochester, New York, it is close to New York fruit production areas ((Wayne and Niagara counties).

When asked where peaches are grown, respondents mentioned about half a dozen states, but none were widely recognized except for New York State. States mentioned include California, Pennsylvania, Florida, Georgia, Oregon, New York, and "down South." Some women noted their perception of differences by state of origin:

- "California peaches seem larger than homegrown peaches."

- “California peaches have different varieties, whereas local peaches are all the same variety.”
- “The flavor of Pennsylvania peaches seems to be better than New York peaches.”

New York-grown peaches were also referred to by participants as being “local” or “homegrown.” They indicated, too, that the unpredictability of ripeness in peaches from other origins, as well as the expectation of a lower-priced local product, often induced them to buy peaches labeled “local” or “homegrown” in supermarkets. Participants noted advantages of local peaches:

- “They are fresher when they’re homegrown.”
- ‘They are local so that you know that you are getting a fresh peach.”
- “They are ripened on the tree—they are not sitting around in a box somewhere waiting to ripen.”

Peach varieties were also not widely known or recognized among participants. Some mentioned Hale Haven, Red Haven, Georgia, Cling, Freestone, White Flesh, and Donut Peach. “Not really sure” was mentioned most often. Nectarines were not volunteered as a variety of peach. They are considered by the participants as an alternative to peaches.

Consumer Purchasing Behavior for Peaches

Roadside stands were identified by the focus group participants as offering freshness and a degree of certitude regarding quality and value. However, most participants preferred supermarkets over direct marketing outlets for purchasing peaches because they are more convenient.

On any given trip to the supermarket, consumers who like peaches are stimulated to buy them when they are in season. The panelists commented that:

- “It is now or never.”
- “They are special.”
- “They are only around for a short period of time.”

When asked how they determined the condition of the peaches they purchased, “no blemishes” and “appropriate ripeness” were most commonly mentioned. The participants determined the condition of peaches through a combination of all senses:

- by appearance - no spots, the right color such as “no green”, “shades of red or pink”, “orange red or orange yellow, not all one color”;
- by touch – “not mushy”, “not too hard”, “have a little bounce to them”;
- by smell – “the aroma grabs you”, “if they smell sweet, it helps the taste”.

Many panelists would purchase peaches in smaller quantity (four to six at a time) to ensure that the peaches are consumed before the quality deteriorates. Price is a factor to some, but not to others. Once the peaches are brought home, they are most often stored in a bowl on the counter.

Consumer Reaction to Peach Stimuli Presented

The participants were presented with two trays of peaches – a tray (marked "C") comprised California peaches usually found in New York State supermarkets during summer time, and a second tray (marked "L") comprised of New York-grown premium tree-ripened peaches. After sampling and discussing the fruit in these two trays, a third tray (marked "P") containing California tree-ripened peaches was introduced, sampled, and discussed.

Participants responded positively to the appearance of the New York-grown premium tree-ripened peaches ("L"), when compared to the common California peaches ("C"). The comments included:

- The "L" peaches look riper and more ready to eat than the "C" peaches.
- The "L" peaches are more red, more uniform, and more pleasing to the eye.
- The "L" peaches are more consistent in size and color and look fresher.

When asked about prices, there was no consensus on a fair price for peaches. It ranged from $1.29 - $1.79 for the New York premium tree-ripened peaches ("L"), $1 to $1.15 for the common California peaches ("C"), and $1.29 to $2.39 for the California tree-ripen peaches ("P"). In both groups, panelists expected peaches from New York State to be cheaper than their California counterparts. The rationale is that New York suppliers have a much lower transportation cost.

When asked about their interest in buying before handling and tasting the peaches, all preferred the higher quality tree-ripened peaches ("L" and "P") over the commonly available California peaches ("C"). The participants' reactions after tasting the products were generally much better for the two tree-ripened peaches. They also commented that they would be willing to pay higher prices if they knew that the peaches would be this good and have dependable quality. However, they would not buy as many – about three or four peaches per trip.

When asked about how the New York-grown premium tree-ripened peaches presented to them compared to other New York peaches they have had, they responded: "this is what a peach is supposed to look and taste like, but I don't see it available in many venues."

Summary

The focus group consumers indicated liking peaches for their juicy sweetness, aroma, and the pleasant childhood memories they evoked. They disliked peaches for the fuzziness of the skin, the short season, the short shelf life, and the perceived difficulty in determining quality as well as whether and when the unripe peaches they bought would ripen in their home. However, ripeness can be in the eye of the beholder – what is ripe to one may be too firm for someone else. According to focus group participants, the characteristics of an "ideal peach" would be a fruit that is: juicy but not messy, available all the time, eye appealing, prone to longer shelf life, nutritious, and cheap (at least when in-season). Consumers in the focus groups determined ripeness of the peaches by their color, aroma, and skin condition. The participants would buy ripe peaches in the expectation that the peaches would be consumed within a day or two, and they would buy unripe peaches only if they had a good sense of when the peaches would ripen.

The main drawbacks of peaches – short season, short shelf life, unpredictability of ripeness – limit the volume of peaches consumers buy by either discouraging purchase or capping the number of peaches purchased on a given trip to the market. The unpredictability of ripeness sometimes drove some women to nectarines whose ripeness is easier to ascertain in consumers' minds, and which have the additional benefit of the absence of fuzz, a major characteristic of peaches which was disliked by some focus group consumers. The unpredictability of ripeness of peaches typically available in supermarkets and the perception of lower prices led some of the focus group consumers to prefer and to buy New York-grown peaches. Peaches grown and sold in New York State are often presumed to be tree-ripened because consumers feel that little or no time is needed to transport the peaches to market, so they can be left on the tree until they are ripe. New York-grown peaches are also expected to be cheaper because they do not have the extra expense of transportation required by peaches grown further away.

At the product presentation and taste testing, the New York premium tree-ripened peaches (Famin'Fury - PF24-007 - produced by Red Jacket Orchard in Geneva, New York) were well received based on their overall appearance and sweet taste. Both tree-ripened peaches presented to the focus groups - the New York peaches "Famin'Fury - PF24-007" and the "Prima" peaches from California - were both preferred over the run-of-the-crop peaches from California.

The focus groups confirmed that peaches are a very appealing fruit for consumers. It evokes excitement and good memories. However, the challenges of selecting good quality peaches are deterrents for higher peach consumption. Disappointing experiences in the past are another reason that has caused consumers to switch to other fruit. The focus group consumers are interested in high quality tree-ripened peaches. Although it is usually recognized that good quality tree-ripened peaches are available in farm stands and farmers' markets, they don't appear to be available in the supermarkets where these consumers typically shop, and going to another venue to buy tree-ripened peaches is perceived as inconvenient. If quality and consistency exist, the focus group consumers seem to be willing to pay higher prices and buy fewer peaches in order to get something they like. Given the results from the focus group discussions, investigation into strategies to promote New York-grown premium tree-ripened peaches in supermarkets should be expanded.

SECTION III: EXPLORING CONSUMER PURCHASE BEHAVIOR - A CONSUMER PHONE SURVEY

Introduction

The participants in the focus group sessions were generally very interested in high quality fresh peaches and provided many ideas on how they would like to purchase high quality fresh peaches. However, as explained previously, results from a focus group study are qualitative and cannot be projected to the population as a whole. To verify what we learned in focus groups, the results from those discussions were used as the base to provide directions for a more detailed and quantitative research approach – the consumer phone survey. The consumer phone survey was designed to better understand consumers' purchase preferences for fresh peaches and to determine consumers' interests in and willingness to pay for quality-guaranteed premium tree-ripened peaches.

Methodology

A random sample of households was selected for telephone interviews from five geographic regions in New York State: Ithaca, Syracuse, Rochester, Buffalo, and Albany. The eligibility screening criteria required that the household member be over the age of 18 and be the primary food shopper in the household in order to respond to the survey. The telephone survey commenced on August 19, 2002 and ended September 21, 2002. The design of the questionnaire as well as the telephone survey procedure conformed to the Total Design Method (TDM) as established by Dillman (1978). A total of 500 interviews were completed. Table 1 shows the response rate by metropolitan region. All telephone interviews were conducted by the Computer-Assisted Survey Team (now Research Survey Institute) at Cornell University using a Computer Assisted Telephone Interviewing System. The survey questionnaire is included in Appendix 3.

The survey data was analyzed by associating responses with demographic characteristics including gender, age, education, employment, family status (with or without children and number of household members), and income. Table 2 shows the profile of surveyed respondents by demographic characteristics. Among the primary food shoppers in the 500 households interviewed, 27% were males and 73% were females, all 18 years of age or older. The higher percentage of female interviewees can be attributed to the fact that typically more females are the primary food shopper in the family.

From the marketing standpoint, fresh peach is considered by many retailers to be a specialty product in the fruit category because it is highly perishable and has a short harvest season. Furthermore, the quality-guaranteed premium tree-ripened peach is a specialty item within the fresh peach category. Therefore, we consider frequent fruit shoppers - defined as purchasing fruit once per week or more often - as the target market of the marketing effort and focused the analysis on this group of consumers. Frequent fruit shoppers accounted for 83% of the participants in this study, or 411 interviewees.

Analysis is separated into the following sections:

- Fresh fruit shopping frequency among all participants;
- Fresh fruit consumption among frequent fruit shoppers;
- Fresh peach consumption among frequent fruit shoppers;
- Tree-ripened fresh peach consumption among frequent fruit shoppers;
- Opportunities and challenges for the New York peach industry.

Table 1. Response Rate by Metropolitan Region

Region	Completed	Refused	Bad phone number	Don't eat fruit	Language problem	Too ill or deceased	Total
	Number of responses						
Albany	104	30	141	5	6	9	295
Buffalo	133	26	158	3	4	10	334
Ithaca	18	2	23	0	1	0	44
Rochester	157	34	136	1	5	14	350
Syracuse	88	31	127	0	3	4	253
Total	**500**	**123**	**585**	**9**	**19**	**37**	**1,276**

Table 2. Profiles of Surveyed Respondents by Demographic Characteristics

Demographic characteristics	Number of respondents	Percent of respondents
Gender (N=500)		
Male	135	27.0
Female	365	73.0
Age (N=495) [a]		
Age Under 25	35	7.0
Age 26-34	72	14.5
Age 35-44	106	21.4
Age 45-54	104	21.0
Age 55-64	76	15.4
Age 65 or older	102	20.6
Education (N=495) [a]		
Some high school	27	5.5
Completed high school	138	27.8
Some college	136	27.5
Completed college or more advanced degrees	194	39.2
Employment (N=495) [a]		
Unemployed	183	37.0
Employed part-time	70	14.1
Employed full-time	242	48.9
Household Characteristics (N=493) [a]		
Adults only	311	63.1
With children under 18	182	36.9
Number of Household Members (N=493) [a]		
1 person	100	20.3
2 persons	158	31.9
3 persons	89	18.1
4 persons	72	14.6
5 persons or more	74	15.0
Income (N=391) [a]		
Under $25,000	87	22.3
Between $25,000 - $49,999	137	35.0
Between $50,000 - $75,000	98	25.1
Over $75,000	69	17.6

[a] Samples do not equal 500 because some participants refused to answer some of the questions.

Results and Analysis

Fresh Fruit Shopping Frequency among Survey Participants

Overall, interviewees reported a high shopping frequency for fresh fruit, with 83% buying fresh fruit at least once a week or more often. A majority (51%) of respondents reported buying fresh fruit once a week, and the predominant shopping frequency for fresh fruit across all sub-groups when analyzed by demographic characteristics is also once a week. Participants buying fresh fruit less than once a week amounted to 17% of the sample. Table 3 compares fresh fruit shopping frequency among consumers of different demographic characteristics. Table 4 shows results from Chi-Square significance tests of consumer demographic characteristics between frequent fruit shoppers (once a week or more) and nonfrequent fruit shoppers (less than once a week).

Female consumers were more likely to purchase fruit more frequently than were male consumers. Eighty-five percent of female shoppers interviewed purchase fresh fruit once per week or more often, compared to 76% of male shoppers. Furthermore, 15% of the male shoppers reported purchasing fresh fruit only once per month or less often, compared to four percent of female shoppers. This could be due to a significant portion of fresh produce promotion targeting female consumers and the typically greater interest and concern on health and diet among female consumers.

When analyzing shoppers by age groups, as the primary household shopper's age increases, a higher proportion of them tend to buy fresh fruit more frequently. The statistical evidence shows that shoppers 45 years and older are more likely than shoppers under 45 years old to purchase fresh fruit at least once a week or more. These results correspond well with health issues becoming more important as consumers age (particularly so among baby-boomers), and the role that fresh fruit are perceived to have in assisting in achieving and maintaining good health.

When analyzing participants by educational levels, there is no statistically significant evidence to show that consumers who reported higher levels of education – with some degree of college education – purchase fresh fruit more or less frequently than consumers who do not have any college education. Although the level of household income does not have a significant impact on determining if a consumer is a frequent fruit shopper (once a week or more), consumers with income levels of $50,000 or above are more likely to purchase fresh fruit more than once a week than are consumers with income less than $50,000. Household characteristics - with or without children and number of members in a household - do not show significant impact on the participating consumers' fresh fruit shopping frequency.

When analyzed on the basis of employment status, 79% of shoppers employed full-time purchase fresh fruit once per week or more often, while 85% of part-time employed shoppers and 86% of unemployed shoppers purchase fresh fruit this frequently. This implies that frequency of purchase is affected by time availability. Shoppers with full- or part-time jobs have less time to make shopping trips for fresh fruit as they are becoming more engaged in their jobs. This finding highlights the importance of providing convenience in shopping for fresh fruit as a marketing strategy to those shoppers who have little time to go shopping,.

Table 3. Comparing Fruit Shopping Frequency Among Consumers by Demographic Characteristics

Demographic characteristics	Shopping Frequency				
	More than once a week	Once a week	Every 2 weeks	Once a month or less	Total
	Percent of respondents				
All (N=499) [a]	32	51	11	6	100
By Gender [a]					
Females (N=364)	33	52	11	4	100
Males (N=135)	29	47	9	15	100
By Age [a]					
<25 yrs (N=35)	20	49	20	11	100
25-34 yrs (N=72)	21	54	15	10	100
35-44 yrs (N=106)	24	58	11	7	100
45-54 yrs (N=103)	41	45	8	6	100
55-64 yrs (N=76)	32	54	8	6	100
65yrs+ (N=102)	42	45	11	2	100
By Income [a]					
Under $25,000 (N=87)	28	46	16	10	100
$25,000-$49,999 (N=137)	27	56	10	7	100
$50,000-$75,000 (N=98)	38	43	11	8	100
Over $75,000 (N=68)	36	51	7	5	100
By Education Level [a]					
Some high school (N=27)	48	29	2	1	100
Completed high school (N=137)	23	54	15	7	100
Some college (N=136)	33	51	10	6	100
Completed college or higher (N=194)	34	51	9	6	100
By Employment Status [a]					
Employed full-time (N=242)	29	50	11	10	100
Employed part-time (N=69)	26	59	12	3	100
Unemployed (N=183)	37	49	11	3	100
By Children [a]					
Households without children (N=311)	32	48	10	9	100
Households with children (N=181)	31	55	13	1	100
By Number of Household Members [a]					
1 person (N=100)	33	41	15	11	100
2 persons (N=158)	28	54	8	9	100
3 persons (N=88)	42	44	10	3	100
4 persons (N=72)	28	58	11	3	100
5 persons or more (N=74)	30	55	15	0	100

[a] Samples do not total 500 because some participants refused to answer some of the questions.

Table 4. Comparison of Frequent and Nonfrequent Fruit Shoppers by Demographic Characteristics

Consumer characteristics	Frequent fruit shoppers [a] (once a week or more)	Nonfrequent fruit shoppers [a] (less than once a week)	Chi-Square (p-value)
	Percent of respondents		
By Gender			
Male (N=135)	75.6	24.4	**5.907**
Female (N=364)	84.9	15.1	**(p=0.015)[b]**
By Age			
Under 45 years old (N=213)	77.0	23.0	**7.507**
Over 45 years old (N=281)	86.5	13.5	**(p=0.006)[b]**
By Income			
Less than $50,000 (N=224)	79.5	20.5	**1.143**
$50,000 or more (N=166)	83.7	16.3	**(p=0.285)**
By Education			
High school education or less (N=164)	78.0	22.0	**3.523**
At least some college education (N=330)	84.8	15.2	**(p=0.061)**
By Employment			
Employed full-time (N=242)	78.5	21.5	**4.913**
Employed part-time and unemployed (N=252)	86.1	13.9	**(p=0.027)[b]**
By Household Characteristics			
Households without children (N=311)	80.4	19.6	**2.670**
Households with children (N=181)	86.2	13.8	**(p=0.102)**

[a] Frequent shoppers are those who purchase fresh fruist at least once a week or more, and nonfrequent shoppers are those who purchase fresh fruit less than once a week.
[b] Chi-square tests significant at p≤0.05.

Fresh Fruit Consumption among Frequent Fruit Shoppers

Before studying fresh peach consumption specifically, we looked at fresh fruit consumption and shopping behaviors in general among frequent fruit shoppers.

- **Where do Frequent Fruit Shoppers Buy Most of Their Fresh Fruit?**

Supermarkets are by far the primary place where most frequent fruit shoppers (72%) purchase their fresh fruit, followed by farm stands (14%), farmers' markets (11%), and "other" outlets (3%). "Other" outlets identified include fruit warehouses, discount stores, organic stores, and public markets. A Chi-Square test was conducted to determine statistically significant differences among purchase locations. As illustrated in Table 5, consumer demographic characteristics, including gender, educational level, income level, and household type, generally have no significant effect on where frequent shoppers purchase most of their fresh fruit. One exception is that frequent shoppers 45 years and older are more likely to make most of their fresh fruit purchases at farm stands or farmers' markets than are those younger than 45 years old. This might indicate that consumers who are 45 years or older may be more likely to want to purchase fresh fruit directly from growers, are more interested in locally-grown produce, or are more concerned about health trends and nutritional issues than are their younger counterparts. This factor should be taken into consideration in developing strategies to promote and market locally-grown fruit through supermarket outlets.

- **Frequent Fruit Shoppers' Fruit Consumption Trends**

Participants were asked if the amount of fresh fruit they consume today is more, about the same as, or less than they consumed 4 or 5 years ago. About half (51%) of the frequent fruit shoppers reported that they are eating more fresh fruit today than 4 or 5 years ago, while 39% reported that they are eating about the same amount, and only 10% reported eating less. These results are promising for promotion of new and high quality fruit such as locally grown premium tree-ripened peaches. Table 6 shows fruit consumption of frequent fruit shoppers today compared to 4 or 5 years ago by shopping outlets and demographic characteristics.

When taking into consideration the places where frequent fruit shoppers purchased most of their fresh fruit, those who bought most of their fruit from "other" outlets had the highest percentage (82%) of eating more fresh fruit today than they did 4 or 5 years ago. However, this result can be misleading given the very small size of the group (only 11 respondents). Although not statistically significant, a slightly higher proportion of supermarket shoppers (52%) are eating more fruit today than 4 or 5 years ago, compared to farmers' market shoppers (48%) and farm stand shoppers (44%). A slightly higher percentage of female frequent fruit shoppers (53%) are eating more fresh fruit today than they did 4 or 5 years ago, compared to male frequent fruit shoppers (44%).

Among all age groups, more respondents are eating more fresh fruit today than 4 or 5 years ago, except for shoppers 65 years and older. The younger shoppers, those under 25 years and those 25-34 years old, are statistically more likely to eat more fresh fruit today than they did 4 or 5 years ago (63% and 65% of respondents, respectively). This may be due to these younger consumers being exposed to more produce promotional campaigns such as “5 a Day” from a younger age and, therefore, they are more inclined to eat more fresh produce items as a result of this exposure.

When analyzing results by income, again a higher percentage of frequent shoppers reported eating more fresh fruit today than 4 or 5 years ago in all income groups. Except for shoppers with income levels between $50,000 and $75,000, the percentage of frequent shoppers eating more fresh fruit today increases as income level increase, from 43% among those with an income of less than $25,000 to 60% for those with an income over $75,000. Moreover, shoppers with income less than $25,000 are more likely to eat less fresh fruit today than they did 4 or 5 years ago. These results might reflect a greater access to product varieties and the ability to purchase higher-priced products (such as exotic and off-season fresh fruit) at higher levels of income.

In terms of household characteristics, households with children (58% of respondents) are statistically more likely to eat more fresh fruit today than 4 or 5 years ago compared to households without children (46% of respondents). This is probably a result of parents’ concern about feeding their children nutritious fresh foods such as fruit. Therefore, households with children are a market worth attention when promoting new and high quality fresh fruit products. Finally, educational level did not have a significant impact on consumption patterns.

- **Do Frequent Fruit Shoppers Purchase Fresh Fruit as Gifts?**

Most frequent shoppers do not buy fresh fruit as gifts; overall, only 32% of frequent shoppers buy fresh fruit as gifts (Table 7). Supermarket shoppers are significantly less likely to buy fresh fruit as gifts than are shoppers of other outlets. Only 28% of the shoppers who buy most of their fresh fruit in supermarkets buy fresh fruit as gifts, compared to 42% for those who purchased most of their fruit from farm stands, 43% for those who buy them at farmers’ markets, and 45% of those who buy them at “other” outlets. This could be due to the availability of fruit gift baskets in most supermarkets, or to the quality, price, or packaging of the fruit or fruit baskets available in supermarkets. This unfilled market implies a marketing opportunity for New York-grown high quality premium tree-ripened peaches to be presented in a “gift container” and promoted through supermarkets, as recommended by the focus group study.

Moreover, most of the demographic characteristics, including gender, level of education, income, employment status, and household characteristics, have no statistically significant effect on the likelihood of shoppers buying fresh fruit as gifts. Nonetheless, some observations are worth noting. Although not statistically significant, a higher percentage of female frequent shoppers than male frequent shoppers purchase fruit as gifts. As the age of shoppers increases, so does the tendency of shoppers to buy fresh fruit as gifts. Frequent fruit shoppers who are 35 years or older are more likely to buy fresh fruit as gifts than are shoppers less than 35 years old. Furthermore, survey results indicated that the lowest income group - shoppers with an income level below $25,000 - are least likely to buy fruit as gifts, while shoppers with the lowest educational level – some high school education – are most likely to purchase fresh fruit as gifts. Employment status and household characteristics do not have an impact on whether consumers buy fresh fruit as gifts or not.

Among shoppers who buy fresh fruit as gifts, the most popular fruit bought for this purpose (in decreasing order of frequency with which they were mentioned) are: oranges, apples, pears, bananas, grapes, and peaches. It is also worth noting that a significant number of these shoppers indicated they buy preassembled fruit baskets. With respect to the occasions for which shoppers buy fresh fruit as gifts, the most frequently mentioned were: Christmas, as the most frequent, followed by birthdays, illness/hospitalization, holidays in general, and funerals.

Table 5. Comparing Shopping Locations for Fresh Fruit among Frequent Fruit Shoppers

Consumer characteristics	Shopping Location for Most of Fresh Fruit				
	Supermarket	Farm stands	Farmers' market	Other	Total
	Percent of respondents				
All (N=411)	72	14	11	3	100
By Gender					
Females (N=309)	72	14	12	2	100
Males (N=102)	72	16	9	3	100
By Age [a, b]					
<25 yrs (N=24)	88	8	4	4	100
25-34 yrs (N=54)	72	9	15	4	100
35-44 yrs (N=86)	79	9	9	2	100
45-54 yrs (N=89)	66	12	19	2	100
55-64 yrs (N=65)	66	23	8	3	100
65 yrs+ (N=89)	70	19	8	3	100
By Education [a]					
Some high school (N=21)	71	5	10	14	100
Completed high school (N=107)	67	20	12	1	100
Some college (N=114)	71	17	11	1	100
Completed college or higher (N=166)	75	11	11	3	100
By Income [a]					
Under $25,000 (N=64)	67	17	11	5	100
$25,000-49,999 (N=114)	71	17	10	2	100
$50,000-75,000 (N=80)	78	12	7	3	100
Over $75,000 (N=60)	68	10	15	7	100
By Children [a]					
Households without children (N=249)	71	16	10	3	100
Households with children (N=156)	73	12	13	2	100
By Employment [a]					
Employed full-time (N=190)	71	11	15	3	100
Employed part-time(N=59)	75	20	3	2	100
Unemployed (N=158)	72	16	9	3	100
By Number of Household Members [a]					
1 person (N=74)	78	15	4	3	100
2 persons (N=131)	66	18	13	3	100
3 persons (N=75)	67	16	16	1	100
4 persons (N=62)	74	15	8	3	100
5 persons or more (N=63)	79	5	14	2	100

[a] Samples do not total 411 because some participants refused to answer some of the questions.
[b] Chi-square tests significant at $p \leq 0.05$.

Table 6. Frequent Fruit Shoppers' Fresh Fruit Consumption Today, Compared to 4 or 5 Years Ago

Consumer characteristics	Consume more today	Consume about the same today	Consume less today	Total
	Fresh fruit consumption trend			
	Percent of respondents			
All (N=411)	51	39	10	100
By location where fruit was bought				
Supermarkets (N = 295)	52	38	10	100
Farm stands (N = 59)	44	37	19	100
Farmers' markets (N = 46)	48	48	4	100
Other (N=11)	82	18	0	100
By Gender [a]				
Females (N=308)	53	36	11	100
Males (N=102)	44	46	10	100
By Age [a, b]				
<25 yrs (N=24)	63 [i]	16	21	100
25-34 yrs (N=54)	65 [i]	33	2	100
35-44 yrs (N=86)	49	37	14	100
45-54 yrs (N=89)	55	40	5	100
55-64 yrs (N=65)	45	41	14	100
65 yrs+ (N=88)	43	44	13	100
By Education [a]				
Some high school (N = 21)	62	24	14	100
Completed high school (N = 106)	49	39	12	100
Some college (N = 114)	48	40	12	100
Completed college or above (N = 166)	53	39	8	100
By Income [a, b]				
<$25,000 (N=63)	43	37	20	100
$25,000 - $49,999 (N=114)	58	32	10	100
$50,000 - $75,000 (N=79)	41	48	11	100
Over $75,000 (N=60)	60	37	3	100
By Children [a, b]				
Households without children (N=249)	46	42	12	100
Households with children (N=156)	58 [i]	34	8	100
By Employment [a]				
Employed full-time (N=190)	54	37	8	100
Employed part-time (N=59)	58	27	15	100
Unemployed (N=157)	45	44	11	100
By Number of Household Members [a]				
1 person (N=74)	50	16	34	100
2 persons (N=131)	48	8	44	100
3 persons (N=76)	43	13	43	100
4 persons (N=62)	56	10	34	100
5 persons or more (N=63)	60	6	33	100

[a] Samples do not total 411 because some participants refused to answer some of the questions.
[b] Chi-square tests significant at p≤0.05.

Table 7. Characteristics of Frequent Fruit Shoppers Who Buy Fresh Fruit as Gifts

Consumer characteristics	Consumers who buy fresh fruit as gifts	Consumers who don't buy fresh fruit as gifts	Total
	Percent of respondents		
All (N=411)	32	68	100
By location where majority of fruit were purchased [b]			
Supermarket (N = 295)	28	72[g]	100
Farm stands (N = 59)	42	58	100
Farmers' market (N = 46)	43	57	100
Other (N=11)	45	55	100
By Gender			
Females (N=309)	35	65	100
Males (N=102)	25	75	100
By Age [a, b]			
<25 yrs (N=24)	21	79	100
25-34 yrs (N=54)	15	85	100
35-44 yrs (N=86)	31	69	100
45-54 yrs (N=89)	39	61	100
55-64 yrs (N=65)	37	63	100
65 yrs+ (N=89)	37	63	100
By Education [a]			
Some high school (N=21)	43	57	100
Completed high school (N=107)	30	70	100
Some college (N=114)	32	68	100
Completed college or higher(N=166)	33	67	100
By Income [a, b]			
<$25,000 (N=64)	23	77	100
$25,000 - $49,999 (N=114)	34	66	100
$50,000 - $75,000 (N=79)	35	65	100
Over $75,000 (N=60)	35	65	100
By Children [a]			
Households without children (N=250)	35	65	100
Households with children (N=156)	29	71	100
By Employment [a]			
Employed full-time (N = 190)	32	68	100
Employed part-time (N = 59)	34	66	100
Unemployed (N = 158)	32	68	100
By Number of Household Members [a]			
1 person (N=74)	31	69	100
2 persons (N=131)	34	66	100
3 persons (N=75)	25	75	100
4 persons (N=74)	35	65	100
5 persons or more (N=63)	38	62	

[a] Samples do not total 411 because some participants refused to answer some of the questions.
[b] Chi-square tests significant at $p \leq 0.05$.

Fresh Peach Consumption among Frequent Fruit Shoppers

Questions analyzed in this section were designed to better understand consumers' purchase behaviors and preferences for fresh peaches.

- **Fresh Peach Purchases among Frequent Shoppers**

Overall, 79% of frequent fruit shoppers interviewed (322) had bought fresh peaches during the 3 months prior to the telephone interview (July, August and September). Most frequent fruit shoppers purchased their peaches in the same outlet where they bought most of their fresh fruit. Analysis of their responses by outlet where they bought most of their fresh fruit indicates that consumers who use farm stands and farmers' markets as their main sources for fresh fruit are more likely to purchase fresh peaches during the summer season than fruit shoppers in supermarkets and "other' outlets. Ninety-two percent of farm stand shoppers and 87% of farmers' market fruit shoppers bought fresh peaches in the three months before the survey (July, August and September), while 75% and 73%, respectively, of supermarket shoppers and shoppers using "other" outlets purchased fresh peaches during the same period of time. As mentioned by focus group participants, this could be the result of consumers' perception of better quality and better prices for fresh peaches available in farm stands and farmers' markets compared to peaches offered for sale in supermarkets.

- **Consumer Satisfaction with the Fresh Peaches They Purchased**

Overall, almost 90% of frequent fruit shoppers who had bought fresh peaches over the three months prior to the interview (July, August and September) reported being "very satisfied" or "satisfied" with the peaches they purchased (Table 8). It is worth noting that while 16% of the shoppers who bought peaches in supermarkets and 8% of shoppers who bought them at farmers' markets were "dissatisfied" or "very dissatisfied" with their purchase, only 2% of consumers were dissatisfied with fresh peaches they purchased from a farm stand. Different demographic characteristics tested, including gender, income level, educational level, employment status, and household characteristics (with children or without children), do not seem to affect the level of satisfaction with fresh peaches purchased, based on the Chi-Square tests at a 0.05 significance level.

Among shoppers who were "very satisfied" or "satisfied" with the fresh peaches they purchased, the most frequently mentioned positive attributes of the peaches were: their good taste and flavor, followed by their sweetness, their juiciness, and the fact that they were ripe or "ready to eat." Among shoppers who were "dissatisfied" or "very dissatisfied" with the peaches they purchased, the most frequently mentioned complaint about the peaches was: too hard/not ripe enough/not ready to eat. Some interviewees even added that when left to ripen on the counter, the peaches would often spoil before becoming ripe or would never ripen at all. The next three most frequently mentioned complaints were: lack of taste/flavor, lack of sweetness (or not sweet enough) and not juicy enough. These results confirmed the opinions expressed by the focus group participants on the importance of taste, sweetness, and juiciness in the level of satisfaction level with fresh peaches.

It is worth pointing out that all the factors that "dissatisfied" consumers complained about were directly related to the degree of ripeness of the peaches. This is a particularly critical aspect for supermarkets where the supply chain is longer than most of the other outlets where fresh peaches are bought. It is, therefore, critical for the industry to develop handling protocols for harvest and post-harvest stages to ensure that fresh peaches have the characteristics expected by consumers at the moment of purchase. In supermarkets located within the geographical area where they are grown, this clearly represents a market opportunity for high quality, tree-ripened peaches, such as New York-grown premium tree-ripened peaches,.

Table 8. Satisfaction with Fresh Peaches Consumers Purchased During the Three Months Prior to the Interview

	Level of Satisfaction with Fresh Peaches Purchased				
Consumer characteristics	**Very satisfied**	**Satisfied**	**Dissatisfied**	**Very dissatisfied**	**Total**
	Percent of respondents				
All (N=322)	**38**	**51**	**9**	**2**	**100**
Place Where Peaches Are Bought [b]					
Supermarkets (N=185)	26	58	13	3	100
Farm stands (N=59)	64	34	2	0	100
Farmers' markets (N=64)	47	45	8	0	100
Other (N=14)	50	50	0	0	100
By Gender					
Females (N=249)	37	53	8	1	100
Males (N=73)	39	50	9	2	100
By Age [a]					
<25 yrs (N=19)	37	63	0	0	100
25-34 yrs (N=38)	32	55	11	3	100
35-44 yrs (N=61)	33	56	10	2	100
45-54 yrs (N=73)	45	45	10	0	100
55-64 yrs (N=54)	37	46	11	6	100
65 yrs+ (N=74)	42	50	7	1	100
By Income [a]					
<$25,000 (N=43)	40	56	5	0	100
$25,000 - $49,999 (N=87)	43	47	8	2	100
$50,000 - $75,000 (N=65)	28	60	11	2	100
Over $75,000 (N=49)	35	49	14	2	100
By Education [a]					
Some high school (N=15)	40	53	7	0	100
Completed high school (N=81)	46	48	6	0	100
Some college (N=91)	45	46	7	2	100
Completed college or higher(N=133)	29	55	13	3	100
By Employment [a]					
Employed full-time (N=139)	36	51	11	2	100
Employed part-time (N=52)	44	42	12	2	100
Unemployed (N=128)	38	54	6	2	100
By Household Characteristics [a]					
Households without children (N=197)	39	49	10	3	100
Households with children (N=120)	37	54	8	1	100

[a] Samples do not total 322 because some participants refused to answer some of the questions.
[b] Chi-square tests significant at $p \leq 0.05$.

- **Fresh Peach Consumption Trend and Willingness-to-Pay Among Frequent Fruit Shoppers**

Survey respondents were asked if they are eating more, about the same, or less fresh peaches today compared to 4 or 5 years ago. Among frequent fruit shoppers, 39% reported eating more fresh peaches today than 4 or 5 years ago, 43% reported eating the same amount, and only 18% reported eating less. However, there is a clear link between the level of satisfaction with the fresh peaches consumed and consumption trends among the frequent fruit shoppers interviewed. The more satisfied the frequent fruit shoppers were with the fresh peaches consumed, the more likely they were to eat more fresh peaches today than they did 4 or 5 years ago. Fifty-four percent of the very satisfied shoppers and 33% of the satisfied shoppers reported eating more fresh peaches today, and only 14% of those who were either dissatisfied or very dissatisfied reported such a trend. Moreover, while only 11% of the very satisfied and 16% of the satisfied consumers reported eating less fresh peaches today than 4 or 5 years ago, more than half of the dissatisfied (55%) and very dissatisfied (57%) shoppers reported eating less today.

Shoppers who purchased their fresh peaches from farm stands and "other" outlets were more likely to increase their fresh peach consumption than were those who purchased their fresh peaches from supermarkets and farmers' markets (Table 9). Results indicate that 44% of frequent fruit shoppers who buy fresh peaches in farm stands and 43% of frequent fruit shoppers who buy them in "other" places are eating more fresh peaches today than 4 or 5 years ago. Only 38% and 35% of shoppers buying fresh peaches in supermarkets and farmers' markets, respectively, reported such a trend. This again confirms the relationship between level of satisfaction and the likelihood of increasing consumption. Level of satisfaction is, therefore, a key factor that should be taken into account when developing marketing strategies for fresh peaches or New York-grown specialty peaches through supermarkets.

Except for income level, most of the demographic characteristics explored in this study, including gender, age, educational level, employment status, and household characteristics, do not seem to affect fresh peach consumption (Table 9). Frequent fruit shoppers with lower income ($50,000 or less annual household income) are statistically more likely than shoppers with higher income (more than $50,000) to eat more peaches today than 4 or 5 years ago. This could be due to increased access to a wide selection of high-end exotic and specialty fruit by shoppers with higher income.

Frequent fruit shoppers' willingness to pay for fresh peaches is again a function of their level of satisfaction with the peaches they have purchased. As the level of satisfaction decreases, so does the price that shoppers perceive as a fair price. On average, shoppers who were very satisfied with the peaches they consumed reported $1.38/lb as a fair price for fresh peaches. The satisfied shoppers, on average, reported $1.14/lb as a fair price. The dissatisfied shoppers reported an average price of $1.25/lb as a fair price for fresh peaches, and shoppers who were very dissatisfied with the peaches they consumed reported an average fair price of only $0.74/lb. The most commonly mentioned price (the mode) was $0.99/lb among the first three groups of shoppers (very satisfied, satisfied and dissatisfied), while the mode was $0.69/lb among the group of very dissatisfied shoppers.

Table 9. Frequent Fruit Shoppers' Fresh Peach Consumption Today Compared to 4 or 5 Years Ago

Consumer characteristics	Fresh Peach Consumption Trend			
	Consume more today	Consume about the same today	Consume less today	Total
	Percent of respondents			
All (N=322)	39	43	18	100
By location where fruit was bought [b]				
Supermarkets (N=184)	38	43	19	100
Farm stands (N=59)	44	42	14	100
Farmers' markets (N=65)	35	42	23	100
Other (N=14)	43	50	7	100
By Gender				
Females (N=249)	41	42	17	100
Males (N=73)	33	45	22	100
By Age [a]				
Under 45 years old (N=118)	41	39	20	100
45 years and older (N=201)	38	45	17	100
By Education [a]				
High school (N=96)	45	42	14	100
Some college and higher (N=224)	37	43	21	100
By Income [a, b]				
$50,000 or less (N=130)	46	37	17	100
Over $50,000 (N=114)	31	50	19	100
By Children in the Household [a]				
Households without children (N=197)	38	42	20	100
Households with children (N=120)	40	43	17	100
By Employment [a]				
Employed full-time (N=139)	37	44	19	100
Employed part-time (N=52)	38	37	25	100
Unemployed (N=128)	41	44	15	100
By Number of Household Members [a]				
1 person (N=54)	41	35	24	100
2 persons (N=108)	36	46	18	100
3 persons (N=61)	39	44	18	100
4 persons (N=50)	36	42	22	100
5 persons or more (N=44)	45	43	11	100

[a] Samples do not total 322 because some participants refused to answer some of the questions.
[b] Chi-square tests significant at $p \leq 0.05$.

- **Factors Impacting Frequent Fruit Shoppers' Purchase Decisions for Fresh Peaches**

Participants were asked to identify the three most important factors or qualities that influence their decision to purchase fresh peaches. Table 10 shows that among frequent fruit shoppers who purchased fresh peaches in the three months prior to the survey, the three most important factors are "color", "firmness" and "price". Furthermore, the three most important factors reported by very satisfied and satisfied frequent fruit shoppers when making the decision to purchase fresh peaches were: "firmness", "color" and "taste", all related to quality. This is similar with the responses from participants in the focus group sessions. Dissatisfied and very dissatisfied shoppers also identified firmness and color as the key elements they use in their purchase decision; however, price becomes an important factor in their decision process too.

Table 10. Three Most Important Factors in Making Fresh Peach Purchase Decisions Among Fresh Fruit Shoppers

Level of satisfaction on fresh peaches purchased in the 3 months prior to the interview	**Three Most Important Factors in Making Fresh Peach Purchase Decision**		
	Most important	**Second most important**	**Third most important**
	Percent of respondents		
Very satisfied (N=123)	Firmness (15%)	Color (14%)	Taste (13%)
Satisfied (N=164)	Color (18%)	Firmness (27%)	Size (9%)
Dissatisfied & very dissatisfied (N=34)	Color (19%)	Firmness (22%)	Price (16%)
All	**Color (16%)**	**Firmness (17%)**	**Price (9%)**

Tree-Ripened Fresh Peach Consumption among Frequent Fruit Shoppers

Questions analyzed in this section were designed to explore consumers' interests in tree-ripened peaches and their reaction to New York-grown premium tree-ripened fresh peaches.

- **Frequent Fruit Shoppers' Experience with Tree-Ripened Fresh Peaches**

Overall, about half (47%) of frequent fruit shoppers interviewed had purchased tree-ripened fresh peaches in the past, 40% had not purchased them, and 13% reported not knowing whether they had or not. Table 11 compares frequent fruit shoppers' experience with tree-ripened fresh peaches by demographic characteristics, excluding shoppers who answered "don't know" to this question. Gender, employment status, and household characteristics (with or without children) did not have a statistically significant impact on whether these consumers had purchased tree-ripened peaches in the past or not.

Older frequent fruit shoppers were more likely to have experience with tree-ripened peaches than were younger shoppers. Sixty-one percent of frequent fruit shoppers 45 years and older had purchased tree-ripened fresh peaches in the past, compared to 44% of shoppers less than 45 years old. Frequent fruit shoppers with annual income less than $25,000 were less likely to have experience with tree-ripened peaches than shoppers in other income groups. While only 41% of frequent fruit shoppers with an annual income of less than $25,000 reported having purchased tree-ripened peaches in the past, 58% of shoppers with an annual income of $25,000 or more had purchased tree-ripened peaches in the past. Moreover, as annual income increases, shoppers are more likely to have purchased tree-ripened peaches in the past. These results indicate that the higher price of tree-ripened peaches might be restricting their purchase by shoppers with lower incomes. Finally, educational level also has an impact on the likelihood of frequent fruit shoppers having experienced tree-ripened peaches. Respondents with only some high school education were least likely to have had experience with tree-ripened peaches.

- **Locations Where Frequent Fruit Shoppers Purchase Tree-Ripened Fresh Peaches**

Supermarkets do not play a significant role as a source for tree-ripened peaches (Table 12). While frequent fruit shoppers are most likely to purchase tree-ripened peaches from the same place where they buy most of their fresh fruit, except for shoppers who buy most of their fruit from "other" outlets, farm stands and farmers' markets become more important when consumers are looking for tree-ripened peaches. Only 46 percent of consumers who purchase most of their fresh fruit in supermarkets reported buying their tree-ripened peaches from supermarkets. Sixty-five percent of frequent shoppers purchased tree-ripened fruit from farm stands and farmers' markets. However, consumers might assume that peaches they purchase at a farm stand or a farmers' market are tree-ripened just because they are buying directly from farmers.

Table 11. Frequent Fruit Shoppers' Experience with Tree-Ripened Peaches

Demographic characteristics	Consumers have purchased tree-ripened peaches	Consumers have not purchased tree-ripened peaches	Total
	Percent of respondents		
All (N=359)	54	46	100
By Gender			
Females (N=267)	52	48	100
Males (N=92)	58	42	100
By Age[a, b]			
Less than 45 years old (N=140)	44	56	100
45 years and older (N=215)	61	39	100
By Education[a, b]			
Some high school (N=19)	37	63	100
Completed high school (N=96)	51	49	100
Some college (N=102)	67	33	100
Completed college or higher (N=139)	50	50	100
By Income[a, b]			
<$25,000 (N=58)	41	59	100
$25,000 - $49,999 (N=99)	55	45	100
$50,000 - $75,000 (N=70)	57	43	100
Over $75,000 (N=53)	64	36	100
By Household Characteristics[a]			
Households without children (N=217)	56	44	100
Households with children (N=137)	53	47	100
By Employment[a]			
Employed full-time (N=161)	53	47	100
Employed part-time (N=54)	56	44	100
Unemployed (N=140)	55	45	100
By Number of Household Members[a]			
1 person (N=63)	46	54	100
2 persons (N=117)	55	45	100
3 persons (N=67)	67	33	100
4 persons (N=54)	57	43	100
5 persons or more (N=53)	47	53	100

[a] Samples do not total 322 because some participants refused to answer some of the questions.
[b] Chi-square tests significant at p≤0.05.

Table 12. Locations Where Frequent Fruit Shoppers Purchase Most Fruit vs. Location Where They Purchase Tree-Ripened Peaches

Location where most fruit were bought	Location where tree-ripened peaches were bought				
	Supermarket	Farm stand	Farmers' market	Other	Total
	Percent of respondents				
Supermarket (N=114)	46	27	21	6	100
Farm stand (N=39)	5	61	26	8	100
Farmers' market (N=32)	6	22	72	0	100
Other (N=6)	0	0	67	33	100
Total (N=191)[a]	29	33	32	6	100

[a] Four interviewees failed to report where they purchased tree-ripened peaches.

- **Satisfaction of Frequent Fruit Shoppers with Tree-Ripened Peaches**

Over 90% of the frequent fruit shoppers who had experience with tree-ripened peaches reported that they were "very satisfied" or "satisfied" with the product they bought. This clearly indicates that the tree-ripened peaches available in the market place are satisfying the expectations of the majority of consumers who bought them. However, as illustrated in Table 13, the level of satisfaction with tree-ripened peaches is higher for products purchased at farm stands and farmers' markets with 65% and 52% of respondents, respectively, reporting being "very satisfied" with the product. On the other hand, consumers who bought tree-ripened peaches in a supermarket are less likely to report being "very satisfied." Although most of the shoppers who bought tree-ripened peaches in supermarkets (70%) reported they were "satisfied" with the product, only 26% reported they were "very satisfied."

The attributes most frequently mentioned by shoppers who were satisfied (satisfied and very satisfied) with the tree-ripened peaches they consumed were: good taste and flavor, sweeter, juicier, and adequate ripeness (not too hard/not too soft). Dissatisfied shoppers (dissatisfied and very dissatisfied) indicated that the product was not up to their level of expectations. The most commonly mentioned complaints were: fruit too hard (not ripe enough), unsatisfactory taste and flavor, and fruit not sweet enough.

Table 13. Frequent Fruit Shoppers' Satisfaction with Tree-Ripened Peaches, by Purchase Location

Location Where Tree-Ripened Peaches Were Purchased	**Level of Satisfaction on Tree-Ripened Peaches Purchased**				
	Very satisfied	**Satisfied**	**Dissatisfied**	**Very dissatisfied**	**Total**
	Percent of respondents				
Supermarket (N=53)	26	70	2	2	100
Farm Stands (N=63)	65	33	2	0	100
Farmers' markets (N=61)	52	44	3	0	100
Other (N=11)	40	50	10	0	100
Total (N=188) [a]	46	50	3	1	100

[a] Seven interviewees failed to report level of satisfaction.

- **Factors Impacting Frequent Fruit Shoppers' Purchase Decisions for Tree-Ripened Peaches**

Respondents were asked to rate the importance of different factors to them when making decisions to purchase tree-ripened peaches. The list of factors presented include: packaged well and appealing; guaranteed good quality and flavor; an identifiable label or brand; locally grown (i.e. grown in New York); available in the supermarket where they shop; available in local farm stands or farmers' markets; and "other". When answering "others", respondents were asked to specify the factor. The respondents rated each characteristic on a scale of 1 to 5, where 1 is not important at all, and 5 is very important.

With respect to the importance of these factors in the purchasing decision process of tree-ripened peaches, the ratings were very similar for frequent fruit shoppers who have purchased tree-ripened peaches in the past, for those who haven't, and for those who don't know whether they have or not. The results indicate that these characteristics are important for shoppers when buying fresh fruit in general, and not specifically when buying tree-ripened peaches. According to their relative ratings, the two most important factors shared by all frequent fruit shoppers are "guaranteed good quality" and "locally grown". Frequent fruit shoppers who had purchased tree-ripened peaches in the last year rated "available in the local farm stand and/or farmers' markets" more important than frequent fruit shoppers who had not purchased tree-ripened peaches in the last year and frequent fruit shoppers who don't know if they had purchased tree-ripened peaches or not. On the other hand, the latter two groups rated "available in the supermarket where I shop" more important. Clearly, these results indicate that there exists a good opportunity to sell locally-grown, good quality premium tree-ripened peaches from New York State through supermarkets in New York and other neighboring states. Moreover, frequent fruit shoppers who are willing to pay more for quality guaranteed tree-ripened peaches rated "guaranteed good quality and flavor", "an identifiable label and brand", "locally grown in New York", and "available in local stands or farmers markets" statistically more important than consumers who were not willing to pay more for this product (Table 14).

Table 14. Rating the Importance of Factors When Making Purchase Decisions for Tree-Ripened Peaches Among Frequent Fruit Shoppers

	Frequent Fruit Shopper's Experience with Tree-Ripened Peaches		
Characteristics of Tree-Ripened Peaches	**Have purchased in the past (N=194)**	**Have not purchased in the past (N=165)**	**Don't know**
	Average rating[a]		
Packaged well and appealing	3.2	3.3	3.1
Guaranteed good quality and flavor	4.6	4.6	4.6
An identifiable label or brand	2.6	2.7	2.7
Locally grown (i.e., grown in NY)	4.0	3.7	3.9
Available in the supermarket where I shop	3.9	4.2	4.5
Available in local farm stands and/or farmers' markets	4.2	3.6	3.8
Others	4.6	3.2	2.8

[a] The rating is on a scale of 1 to 5, where 1 is not important at all, and 5 is very important.

- **Frequent Fruit Shoppers' Willingness to Pay for Quality-Guaranteed Tree-Ripened Fresh Peaches**

Respondents were asked if they would be willing to pay a higher price for quality-guaranteed premium tree-ripened peaches. Most shoppers who had purchased tree-ripened fresh peaches in the past, regardless of their level of satisfaction with them, indicated that they were willing to pay more for this product under certain conditions. If quality is guaranteed, 76% of shoppers who were "very satisfied" and "satisfied" with the tree-ripened peaches they had bought were willing to pay more for the product. An amazing 94% of shoppers who were either "dissatisfied" or "very dissatisfied" with the tree-ripened peaches they had purchased were also willing to pay more for the quality-guaranteed product. Perhaps these shoppers believe that higher prices will deliver a product with the characteristics they expect.

Again, the demographic characteristics explored generally do not affect frequent fruit shoppers' willingness to pay more for quality guaranteed tree-ripened peaches (Table 14). Older consumers (45 years or older) and consumers who were dissatisfied with fresh peaches purchased in the past are more likely to be willing to pay more for quality guaranteed tree-ripened peaches. Frequent fruit shoppers who purchased a majority of fresh peaches from supermarkets also showed a slightly higher level of willingness to pay more for quality guaranteed tree-ripened peaches. However, this could be correlated to the fact that supermarket shoppers reported a lower level of satisfaction with the fresh peaches they had consumed in the past.

Table 15. Frequent Fruit Shoppers' Willingness to Pay a Higher Price for Quality-Guaranteed Tree-Ripened Peaches

Consumer characteristics	Willing to pay more	Not willing to pay more	Chi-square (P-Value)
	Percent of respondents		
By Age [a]			
<25 yrs (N=24)	88	12	
25-34 yrs (N=52)	71	29	
35-44 yrs (N=81)	68	32	
45-54 yrs (N=89)	87	13	
55-64 yrs (N=61)	79	21	**13.532**
65 yrs+ (N=85)	68	32	**(p=0.019)[b]**
By Gender [a]			
Females (N=298)	76	24	**0.760**
Males (N=98)	72	29	**(p=0.383)**
By Education [a]			
High school education or lower (N=125)	71	29	**1.462**
Some college education or more (N=268)	77	23	**(p=0.227)**
By Employment [a]			
Unemployed (N=153)	70	30	**3.434**
Employed full-time or part-time (N=239)	78	22	**(p=0.064)**
By Children [a]			
Households without children (N=241)	76	25	**0.114**
Households with children under 18 (N=150)	74	26	**(p=0.736)**
By Number of Household Members [a]			
1 person (N=70)	73	27	
2 persons (N=128)	71	29	
3 persons (N=75)	79	21	
4 persons (N=60)	78	22	**2.309**
5 persons or more (N=58)	78	22	**(p=0.679)**
By Income [a]			
Under $25,000 (N=61)	74	26	
Between $25,000 - $49,999 (N=112)	71	29	
Between $50,000 - $75,000 (N=77)	77	23	**6.273**
Over $75,000 (N=59)	88	12	**(p=0.099)**
Buy Fresh Fruit as Gifts [a]			
Yes (N=130)	78	22	**0.889**
No (N=266)	73	27	**(p=0.346)**
Satisfaction with Fresh Peaches Consumed [a]			
Satisfied and very satisfied (N=277)	76	24	**6.157**
Dissatisfied and very dissatisfied (N=35)	94	6	**(p=0.013)[b]**
Location to Purchase Majority of Fresh Peaches [a]			
Supermarkets (N=181)	74	26	**3.208**
Non-Supermarkets (N=132)	83	17	**(p=0.073)**
Fresh Peach Consumption Today Compared to 4 or 5 Years Ago [a]			
More (N=128)	78	22	
About the same (N=171)	71	29	**4.232**
Less (N=91)	81	19	**(p=0.121)**
Buy Tree Ripened Peaches in the Past [a]			
Yes (N=189)	81	19	**10.018**
No (N=159)	66	34	**(p=0.002)[b]**

[a] Samples do not total 411 because some participants refused to answer some of the questions.
[b] Chi-square tests significant at p≤0.05.

Summary

Overall, consumers surveyed in this study reported a high shopping frequency for fresh fruit, with 83% buying fresh fruit at least once a week or more often. The most common shopping frequency for fresh fruit is once a week (51% of respondents). Female shoppers, shoppers 45 years and older, shoppers with an income level of $50,000 or more, and shoppers who are not employed full-time are more likely to purchase fresh fruit more frequently (once a week or more).

Seventy-two percent of consumers, or 79% of frequent fruit shoppers surveyed, purchased fresh peaches during the 3 months prior to the interview. Forty-four percent of consumers, or 54% of frequent fruit shoppers surveyed, purchased tree-ripened peaches during the past year. In general, consumer demographic characteristics do not significantly affect consumer shopping patterns for fresh fruit, or more specifically fresh peaches or tree-ripened peaches.

Fresh Fruit Buying Behavior Among Frequent Fruit Shoppers

When analyzing the buying behavior of frequent fruit shoppers (once a week or more), most of frequent fruit shoppers (72%) purchased the majority of their fruit from supermarkets. The only statistically significant demographic characteristic found is that frequent shoppers 45 years and older are more likely to make most of their fresh fruit purchases at direct marketing outlets (farm stands or farmers' markets) than were those less than 45 years old.

About half (51%) of the frequent fruit shoppers reported that they are eating more fresh fruit today than they did 4 or 5 years ago, and only 10% reported eating less. Statistically, younger consumers (less than 35 years old) and households with children are more likely to report eating more fresh fruit today. On the other hand, low income shoppers (less than $25,000) are more likely to be eating less fresh fruit today.

Most of the frequent fruit shoppers (68%) do not buy fresh fruit as gifts. Shoppers who buy the majority of their fruit from supermarkets are less likely to buy fresh fruit as gifts than are shoppers of other outlets. Frequent fruit shoppers who are 35 years or older are more likely to buy fresh fruit as gifts than are shoppers less than 35 years old. The most popular fruit that frequent fruit shoppers purchased as gifts are oranges, followed by apples, pears, bananas, grapes, and peaches; and the most frequently mentioned occasions for which shoppers buy fresh fruit as gifts are Christmas, followed by birthdays, illness/hospitalization, holidays in general, and funerals (sympathy). Many shoppers indicated that they purchased these fruit in a pre-assembled fruit basket form.

Fresh Peach Buying Behavior Among Frequent Fruit Shoppers

Most shoppers are likely to buy fresh peaches when they are in season. Seventy-nine percent of frequent fruit shoppers interviewed had bought fresh peaches during the three months prior to the telephone interview (July, August, and September). Most of them purchase their peaches at the same outlet where they buy most of their fresh fruit. While most of the frequent fruit shoppers (90%) who had bought fresh peaches during the three months prior to the interview reported being satisfied or very satisfied with the peaches they had purchased, shoppers who bought their peaches in supermarkets and farmers' markets were more likely to report being dissatisfied or very dissatisfied than were shoppers buying them at farm stands and "other" outlets.

The most frequently mentioned reason for being satisfied or very satisfied with the peaches they had bought was their good taste and flavor, followed by sweetness, juiciness, and the fact that they were ripe or "ready to eat." The most commonly mentioned complaint for being dissatisfied or very dissatisfied with the peaches purchased included that the peaches were too hard, not ripe enough or not ready to eat, followed by lack of taste/flavor, not sweet, and not juicy.

Among frequent fruit shoppers, 39% reported eating more fresh peaches today than they did 4 or 5 years ago. The more satisfied the frequent fruit shoppers were with the fresh peaches they purchased, the more likely they are to eat more fresh peaches today. Moreover, frequent fruit shoppers who purchased their fresh peaches from farm stands and "other" outlets are more likely to increase their fresh peach consumption than are those who purchased their fresh peaches from supermarkets and farmers' markets. This again confirms the relationship between the level of satisfaction with the peaches consumed and the likelihood of increasing consumption. Moreover, frequent fruit shoppers' willingness to pay for fresh peaches is a function of their level of satisfaction with the peaches they have purchased. As the level of satisfaction decreases, so does the level of prices perceived as fair by shoppers.

The three most important attributes to frequent fruit shoppers when buying fresh peaches are color, firmness, and price. More importantly, price was not mentioned as an important factor by consumers who were satisfied with peaches they purchased, only by dissatisfied consumers.

Tree-Ripened Peaches Buying Behavior Among Frequent Fruit Shoppers

About half of the frequent fruit shoppers interviewed (47%) had purchased tree-ripened fresh peaches during the last year. However, 13% of frequent fruit shoppers did not know whether they had or not. Older frequent fruit shoppers (45 years and older) are more likely to have experience with tree-ripened fresh peaches than younger shoppers. As annual income increases, frequent fruit shoppers are more likely to have purchased tree-ripened peaches. Again, frequent fruit shoppers are more likely to purchase tree-ripened peaches from the same place where they buy most of their fresh fruit. However, about half of frequent fruit shoppers who purchase the majority of their fruit from supermarkets switched to farm stands or farmers' markets to purchase their tree-ripened peaches.

Ninety percent of frequent fruit shoppers who had purchased tree-ripened peaches in the year prior to the interview reported that they are satisfied or very satisfied with the product they had bought. Again, the level of satisfaction with tree-ripened peaches is lower for products purchased in supermarkets than for those purchased at farm stands and farmers' markets.

Similar to the attributes mentioned by fresh peach consumers, the attributes most frequently mentioned by shoppers who were satisfied and very satisfied with the tree-ripened peaches they purchased were: good taste and flavor, juicier product, and adequate ripeness (not too hard or too soft). The most commonly mentioned complaints from shoppers who were dissatisfied and very dissatisfied with the tree-ripened peaches they had purchased were: too hard (not ripe enough), disappointed in taste and flavor, not sweet enough.

Most of the frequent fruit shoppers who had purchased tree-ripened peaches are willing to pay more for quality-guaranteed tree-ripened peaches. Moreover, older consumers (45 years or older) and consumers who were dissatisfied or very dissatisfied with the tree-ripened peaches they had bought are more willing to pay a higher price for quality guaranteed tree-ripened peaches. The most important attribute when frequent fruit shoppers are making purchase decisions for tree-ripened peaches are guaranteed good quality and flavor. "Available in the local farm stands or farmers' markets" and "locally grown" are more important to frequent fruit shoppers who have purchased tree-ripened peaches during the year prior to the interview, while "available in the supermarket where they shop" is more important to frequent fruit shoppers who had not purchased tree-ripened fruit during the year prior to the interview.

SECTION IV: CONCLUSIONS AND RECOMMENDATIONS

The focus groups and the consumer phone survey show that consumers, especially frequent fruit shoppers, are generally very interested in good quality peaches as well as quality guaranteed premium tree-ripened peaches. Although consumers usually recognized that good quality tree-ripened peaches can be found in farm stands or farmers' markets, they appear to be less available in the supermarkets where respondents in this study typically shop. The majority of consumers surveyed in this study buy most of their fruit in supermarkets, and going to another venue to buy peaches or tree-ripened peaches is perceived as inconvenient. Furthermore, consumers are interested in locally grown peaches when they are in season. All these factors represent opportunities for New York stone fruit growers to supply good and consistent quality fresh peaches through the supermarket channel.

Peaches are prized for its juicy sweetness and good flavor. It evokes pleasant childhood memories and excitement when it is in season. However, consumers are frustrated by the difficulty they have in selecting peaches at the proper stage of ripeness and with the qualities they like. According to the focus group participants, the characteristics of an "ideal peach" would be a fruit that is: juicy but not messy, available all the time, eye appealing with a longer shelf life, nutritious, and a good value. The important peach qualities identified by phone interview participants are firmness, color, and taste. The main things which participants in the focus groups don't like about peaches are the fuzziness of the skin and the unpredictability of ripeness and eating quality, and the main complaint about peaches by frequent fruit shoppers in the phone survey is that the peaches were not ripe enough.

Quality and consistency of the product are the most important factors for consumer satisfaction, and a high level of satisfaction in turn increases consumer demand for fresh peaches. If quality and consistency exist, consumers seem to be willing to pay higher prices and buy fewer pieces of fruit in order to get the peaches they like. Although consumers in this study were generally satisfied with the peaches or tree-ripened peaches they had consumed, they also reported a high degree of difficulty in determining whether the peaches are ripe and/or when they will ripen when buying them in supermarkets. Dissatisfaction with peaches commonly available in supermarkets (usually from the West Coast) and the expectation of lower prices for locally-grown products often leads shoppers to prefer and to buy peaches grown locally. This presents a marketing opportunity for direct marketing outlets such as farm stands and farmers' markets, as well as for marketing high quality New York-grown peaches through supermarkets.

Participants in the focus groups showed little knowledge on the different varieties of peaches available in the market and of the production areas in the country. Most of them recognized New York (Wayne and Niagara counties) as a region where peaches are grown and referred to these peaches as being "local" or "homegrown." Awareness of peaches from New York and of their "local" nature among these shoppers clearly constitutes an advantage to build upon when marketing New York-grown peaches. However, there are several challenges in designing a marketing program targeted at getting a premium price for high quality New York-grown tree-ripened peaches.

Although consumers identify tree-ripened peaches as better quality than the run-of-the-mill peaches, many did not know if the peaches they bought were tree-ripened or not, while others assumed that the peaches are tree-ripened if they were grown in New York or locally. Additionally, the expectation of a lower price for locally-grown products constitutes a significant marketing challenge for selling them at a premium price. It is worth mentioning, too, that in spite of the preference for the local product reported by focus group participants, New York peaches face significant competition from California and Pennsylvania peaches. Participants in the focus groups view California peaches as larger and Pennsylvania peaches as more flavorful and predictable than New York peaches. This constitutes a challenge for the New York peach industry to develop varieties that can deliver better on consumers' expectations, such as the New York-grown quality guaranteed premium tree-ripened peaches.

An adequate positioning statement, as well as clear labeling at the point of purchase, would be required to overcome these challenges. Therefore, when promoting quality-guaranteed New York-grown premium tree-ripened peaches in supermarkets, packaging and labeling will be the major means to inform and influence a potential buyer. Advertising should emphasize high quality and be used as intrusively and as creatively as possible to justify a higher price and to stimulate sales for the New York-grown quality guaranteed premium tree-ripened peaches.

Some suggestions for packaging and labeling of the quality guaranteed premium New York-grown tree-ripened peaches include:

- Clearly identify the fruit as being different from run-of-the-crop peaches commonly available in supermarkets.
- Use a descriptor that can justify the higher price and tap into the wellsprings of remembrances that people have about peaches.
- Communicate their local origin and thus underscore their freshness and dependability of quality and ripeness through labels such as "Premium Old-Fashioned Peaches", "Truly-Tree Ripened in XXXX County, New York", "Quality Guaranteed".

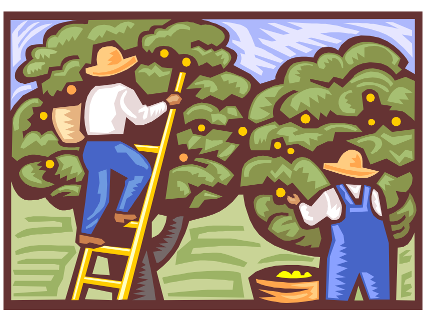
To further support the premium image of these peaches, two additional pieces of marketing communication should be considered:

- <u>A "Picked on (DATE)" sticker</u>**:** This date emphasizes their freshness versus a "Sale by (DATE)" which points out the end of the freshness period.
- <u>A "Peach Caddy"</u> with 3-4 individual compartments to enable the buyer to get the peaches bagged and home without being bruised. The caddy may also provide a venue for sell-copy.

Participants in the focus groups also indicated that the short season, the short shelf life, and the unpredictability of ripeness typical for peaches tend to limit the volume of peaches they buy overall and the number of peaches they purchase on a given trip to the supermarket. However, some indicated that the short season actually stimulates them to buy peaches when they are available as they know they have to take advantage of the season or they will have to wait for a full year. Given the narrow marketing window when fresh New York peaches are available and the interest that their arrival seems to generate, both run-of-the-crop and premium varieties can benefit from promoting their arrival. Stores might even have "tastings" to create excitement and to help consumers identify the quality of peaches.

Demographic characteristics generally do not affect consumer behavior in terms of purchasing fresh peaches or tree-ripened peaches. Therefore, promotional programs targeting specific consumer groups are not necessary. Generating consumer satisfaction through good quality and consistency is the key. Offering good quality, pre-assembled gift baskets and making them available at supermarkets is an untapped market that represents an opportunity for New York-grown quality guaranteed premium tree-ripened peaches. Female and older shoppers would be a good target market for this product.

While consumers are generally willing to pay more for quality guaranteed tree-ripened peaches, consumers who had not purchased tree-ripened peaches in the past or who were disappointed by the peaches or tree-ripened peaches they had purchased are even more willing to pay more to get something they like. This shows the positive feeling peaches have on consumers. Although they are less willing to purchase peaches after they are disappointed by the products they had consumed, they are willing to pay a higher price and give it another try when quality is guaranteed. Many supermarket frequent fruit shoppers are in this category. The New York stone fruit industry should capture this marketing opportunity and develop a holistic production and marketing plan with supermarkets that are interested in differentiating themselves as suppliers of premium produce supplier for their customers.



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APPENDICES

Appendix 1

Screening Guide for Recruitment of Consumer Focus Group Participants

08/09/01

Fruit Exploratory
Screener

Recruit 8	Recruit 8
[ ]6:00 p.m.	[ ]8:00 p.m.

NAME: ______________________________ **TEL # [ ]** ______________
ADDRESS: ____
CITY: ____________________________ **STATE:** ____ **ZIP:** ___________
INTERVIEWER: __________________________________ **DATE:** ___________

Hi! My name's from . We are conducting a brief study in your area among female heads of households and would like to ask you a few questions.

1. **Are you the primary shopper for your household?**

   Yes [ ] No [ ] ASK TO SPEAK TO THE PRIMARY SHOPPER

2. **Are you, or is any member of your household or are any close personal friends employed by or in any other way affiliated with READ LIST:**

An advertising agency	Yes	No	
A public relations firm	Yes	No	THANK & TERMINATE
A marketing research company	Yes	No	IF "YES"
In the graphic arts including package or industrial design	Yes	No	TO ANY.
A company that manufactures, distributes or sells fruit or processed fruit products	Yes	No	

3a. **When was the last time that you, personally, participated in a marketing research survey or focus group discussion?**

Within the past 3 months	**[ ] THANK & TERMINATE**
More than 3 months ago	**[ ] ASK Q3b**
Never	**[ ] SKIP TO Q3c**

3b. **What was the subject or subjects being discussed?**

____
TERMINATE IF THE SUBJECT WAS ANY KIND OF FOOD OR DRINK

3c. **Including yourself, how many members are there presently living in your household?**

1 member	**[ ] THANK & TERMINATE**
More than 1 member SPECIFY # [___]	**[ ] ASK Q3d**

3d. How many of these household members are?
READ LIST AND CIRCLE APPROPRIATE ANSWER

Adults [18 yr. +]	0 1 2 3 4 5 6 7 8
Children 4 and under.	0 1 2 3 4 5 6 7 8
Children 5 - 11 years	0 1 2 3 4 5 6 7 8
Children 12 - 17	0 1 2 3 4 5 6 7 8

IF 1 OR MORE CHILDREN 5 -11, ASK Are you the mother of the children 5-11? YES [ ] No [ ]

IF RESPONDENT IS NOT THE MOTHER OR HAS NO CHILDREN IN THIS AGE CATEGORY THANK & TERMINATE

3e. What is the gender of your child/children 5 - 11? CIRCLE ANSWER

Both male and female Only male Only female

TRY FOR SPREAD OF GENDERS

4a. Which of the following fresh fruit have you personally bought in a supermarket for consumption in your household at least twice in the past three months? READ LIST

4b. Which of the following fresh fruit that you have bought in a supermarket have you personally eaten at least twice in the past three months? READ LIST

4c. For each fruit I say, I would like you to tell me whether 4 to 5 years ago you regularly bought that fruit for your household in a supermarket? READ EVERY FRUIT ON LIST

4d. FOR EACH FRUIT THAT WAS PURCHASED IN A SUPERMARKET 4 TO 5 YEARS AGO ASK Now today, compared to 4-5 years ago, do you think you purchase more EACH FRUIT from a supermarket, less EACH FRUIT from a supermarket or about the same amount of EACH FRUIT from a supermarket. CIRCLE ANSWER IN COL 4d.

	In Past 3 Months				4-5 Years Ago Household				
	4a. Personally Bought from Supermarket?		4b. Personally Consumed?		4c. Purchased?		4d. Purchase:		
Products	Yes	No	Yes	No	Yes	No	More	Same	Less
Apples for Eating	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Bananas	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Cherries	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Grapes	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Nectarines	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Oranges for eating	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Peaches	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Pears	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
Plums	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	M	S	L
TOTAL YESs IN EACH COL									

RESPONDENT IS DEFINITELY QUALIFIED IF SHE DOES ALL THREE OF THE FOLLOWING:

A. SAYS "YES" TO BUYING AND EATING AT LEAST 3 FRUIT FROM SUPERMARKETS INCLUDING PEACHES IN COLS 4a. & 4b. [ ]

B. REGULARLY BOUGHT THOSE SAME FRUIT 4 TO 5 YEARS AGO FROM A SUPERMARKET [COL 4c.], BUT EXCEPT FOR PEACHES NOW BUYS "MORE" OF THEM [COL 4d.] [ ]

C. REGULARLY BOUGHT PEACHES 4-5 YEARS AGO FROM A SUPERMARKET [COL 4c.], BUT NOW BUYS THE "SAME" AMOUNT OR "LESS" PEACHES [COL 4d] [ ]

RECRUIT IF SHE MEETS OTHER QUALIFICATIONS

RESPONDENT MAY BE QUALIFIED IF SHE DOES ALL THREE OF THE FOLLOWING:

A. SAYS "YES" TO BUYING AND EATING AT LEAST 2 FRUIT FROM A SUPERMARKET IN COLS 4a. & 4b., BUT NOT PEACHES [ ]

B. BOUGHT THOSE SAME FRUIT FROM A SUPERMARKET 4 TO 5 YEARS AGO [COL 4c.], BUT NOW BUYS "MORE" OF THEM FROM A SUPERMARKET [COL 4d.] [ ]

C. BOUGHT PEACHES 4-5 YEARS AGO FROM A SUPERMARKET [COL 4c.], BUT DOES NOT NOW BUY OR EAT ANY PEACHES FROM A SUPERMARKET ["NO" in COLS 4a & 4b.] [ ]

FINISH SCREENER AND IF SHE QUALIFIES DO NOT RECRUIT BUT HOLD ASIDE IN CASE SHE IS NEEDED.

6. Into which of the following groups does your age fall? READ LIST

Under 25	[ ]	THANK & TERMINATE
25 - 34	[ ]	
35 - 44	[ ]	
45 - 54	[ ]	
55 - 64	[ ]	THANK & TERMINATE
65 +	[ ]	THANK & TERMINATE

7. What is the last grade of school that you completed?

Some high school	[ ]	THANK & TERMINATE
Completed high school	[ ]	SPREAD
Some college	[ ]	
Completed college	[ ]	
Graduate school	[ ]	
Other technical/ business/ trade school	[ ]	THANK & TERMINATE

8. What is your employment status? Are you presently:

Employed full-time	[ ]	ABOUT HALF IN EACH GROUP SHOULD BE EMPLOYED
Employed part-time	[ ]	
Not employed	[ ]	ABOUT HALF IN EACH GROUP

9. What is your marital status?

Married	[ ]
Living with a significant other	[ ]
Single	[ ]
Divorced/Widowed/Separated	[ ]

10. Which of the following groups represents your household's total annual income before taxes? READ LIST

Under $25,000	[ ]	THANK & TERMINATE
$25,000 - $49,999	[ ]	SPREAD
$50,000 - $74,999	[ ]	
$75,000 or more	[ ]	

11. I'd like you to think for a moment about your favorite book or movie. What is it? AFTER RESPONDENT REPLIES WRITE IT DOWN AND PROBE What do you get from this [book / movie] that you don't get from others? (WRITE DOWN RESPONSE AS CLOSE TO VERBATIM AS POSSIBLE)

____

____

____

____

____

THE PURPOSE OF THIS QUESTION IS TO MAKE SURE THAT THE RESPONDENT IS ARTICULATE, THAT IS, THAT THE RESPONDENT CAN EXPRESS HER THOUGHTS AND FEELINGS FREELY WITHOUT EXTENSIVE PROBING. IF RESPONDENT GIVES VERY BRIEF ANSWERS - "MUSIC," "SINGING," "PLOT," ETC. - THAT DON'T DISCRIMINATE ONE TITLE FROM ANOTHER OR SAYS "I DON'T KNOW", OR SEEMS UNCOMFORTABLE TALKING TO YOU, TERMINATE. THE SUPERVISOR SHOULD REVIEW ALL THESE ANSWERS AND THEY SHOULD BE FAXED ON A DAILY BASIS AS RECRUITING IS COMPLETED TO DONOVAN & ASSOCIATES.

FINALLY, QUALIFIED RESPONDENTS MUST BE:

[ ] Fluent in English

[ ] Articulate

[ ] Unknown to the recruiter

[ ] Ethnically diverse, i.e., last name

FOR EACH GROUP, RECRUIT 8.

CHECK QUOTAS AND TIMES; INVITE QUALIFIED RESPONDENTS TO PARTICIPATE IN FOCUS GROUP LASTING TWO HOURS AT YOUR FACILITY ON AUGUST 28.

Appendix 2
Consumer Focus Group Discussion Guide

CORNELL UNIVERSITY
DEPARTMENT OF APPLIED ECONOMICS AND MANAGEMENT
EXPANDING THE CONSUMER MARKET FOR FRESH PEACHES
FOCUS GROUP DISCUSSION GUIDE

I INTRODUCTION & WARMUP

Introduction of environment: audio taping. . . associates behind mirror, . . video taping. . .no nodding. . .no talking all at once. . .assurance of complete confidentiality. . .not selling anything. . .strictly for marketing research purposes.

Explanation of focus group techniques/objectives. . .no right or wrong answers. . .freedom, safety and importance to express only your personal opinions and attitudes, not what you think most people would say. . .not a consensus. . .not a survey . . an opinion expressed by one person is as important as a different opinion expressed by five. . .my role: to keep the discussion moving, to obtain your true reaction to everything put before you whether it is positive, neutral or negative

Why you're here - discussion about fresh fruit that you regularly purchase at the supermarket. . . Therefore, need to confirm that each of you regularly purchases and eats fresh fruit. . LIST DIFFERENT FRUIT THAT THEY REGULARLY EAT THAT THEY PURCHASE FROM THE SUPERMARKET. CONFIRM THAT ALL CURRENTLY EAT PEACHES

Introduce yourselves. . .name, current occupation, how often you eat fresh fruit that you purchase at the supermarket, whether you also purchase fruit from a roadside stand, your three most favorite fruit.

II USE OF AND ATTITUDES TOWARD FRUIT IN GENERAL

Why do you eat fruit in general? Why do you eat your favorite fruit? What changes have occurred in your consumption of various fruit in general in the past four or five years? PROBE Do you consume more or less and why? How would you describe the "ideal" fruit? Which fruit come closest to the "ideal."

III USE OF AND ATTITUDES TOWARD PEACHES

DISTRIBUTE AND ASK RESPONDENTS TO COMPLETE STATEMENTS: "What I like most about peaches is…" "What I dislike most about peaches is…" "I would eat more peaches if …" REVIEW AND DISCUSS ANSWERS PROBING WHERE NECESSARY.

When did you start eating peaches? Do you eat more or less than you did five years ago and why? Why do you eat peaches? Nutritional benefits? Taste benefits? Competitive context? How do peaches compare with your ideal fruit? Can you recall the best peach you ever had - where did you buy it? What was it like? Please describe it? How close to the "ideal" fruit was that peach? How would you describe the "ideal" peach? What products would you like to see made with peaches? IF NECTARINES NOT MENTIONED How would you compare peaches with nectarines - how are they alike? Different? Which do you prefer and why?

IV SHOPPING FOR PEACHES

Where do you usually buy peaches - supermarkets? Roadside stands? How would you describe the differences in the peaches that you usually buy at the supermarket and the peaches that you usually buy at roadside stands? IF NECESSARY PROBE FOR PERCEPTIONS OF DIFFERENCES IN PRICE, APPEARANCE, SIZE, FLAVOR, JUICINESS, TEXTURE, ETC.

Consider the last time you bought peaches in a supermarket - why did you buy them? How did you choose the peaches that you put in your plastic bag? IF NOT VOLUNTEERED EXPLORE IMPORTANCE OF AND HOW THEY DESCRIBE THEIR APPEARANCE, TOUCH, COLOR, AROMA, PERCEIVED VALUE.

How many did you buy? How long will they last? Where were they stored? Who ate them?

V REACTIONS TO "PREMIUM TREE RIPENED PEACHES" AND TO THOSE FROM SUPERMARKET

ASK AND EXPLORE REACTIONS TO AND PREFERENCE FOR APPEARANCE… AROMA…TACTILE EXPERIENCE…TASTE…EXPECTED COST…THE EXTENT TO WHICH THEY APPROACH THE "IDEAL" PEACH…PURCHASE INTEREST…OVERALL PREFERENCE.

Appendix 3
Consumer Phone Survey Questionnaire

Upstate NY Consumer Survey on NY Premium Tree Ripened Fresh Peaches: Survey Questions

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Revised 7/19/02 by CAST

Section I. Fresh Fruit Consumption Questions

ELIGIBILTY: Ask to speak with the person in the household who does the majority of the food shopping (for that household).

1. How often do you shop for **fresh fruit?** (CHOOSE ONE)
   A. More than once a week
   B. Once a week
   C. Every two weeks
   D. Once a month or less
   E. Never – end survey – thank respondent – not eligible

2. Where do you buy most of your **fresh fruit?** (CHOOSE ONE)
   A. Supermarkets
   B. Farm stands
   C. Farmers' markets
   D. Others (specify): ___________________________
   E. NONE

3. Would you say the amount of **fresh fruit** you consume today is more, about the same or less than you did 4 or 5 years ago? (CHOOSE ONE)
   A. More
   B. About the same
   C. Less
   D. Not Applicable

4. Do you purchase **fresh fruit** as gifts? (CHOOSE ONE)
   ___ **Yes**, please answer Question 5a & 5b, ____ **No**, please skip to Question 5

   5a. What **fresh fruit** have you purchased as gifts? ____

   5b. What were the occasions? ____

Section II. Fresh Peach Consumption Questions

5. During the past 3 months, have you purchased **fresh peaches**? (CHOOSE ONE)

 ___ **Yes**, please answer Questions 6a & 6b, ____ **No**, please skip to Question 6

 If you purchased fresh peaches at least once in the past 3 months:

 6a. Where did you purchase most of your **fresh peaches**? (CHOOSE ONE)
 - A. Supermarkets
 - B. Roadside stands
 - C. Farmers' markets
 - D. Others (specify): ________________________
 - E. NONE

 6b. Were you very satisfied, satisfied, dissatisfied, or very dissatisfied with the **fresh peaches** you purchased? (CHOOSE ONE)
 - A. Very satisfied, Why? __________________________
 - B. Satisfied, Why? __________________________
 - C. Dissatisfied, Why? __________________________
 - D. Very dissatisfied, Why? __________________________
 - E. Others (specify): ____________________________

6. Would you say that you consume more, about the same or less **fresh peaches** today than you did 4 or 5 years ago? (CHOOSE ONE)
 - A. More
 - B. About the same
 - C. Less
 - D. Not Applicable

7. What do you consider to be a "fair" price for fresh peach? $ ____________________ a pound.

8. What are the three most important factors or qualities to you as a consumer when you are deciding to purchase **fresh peaches**? Examples to give to the subject if asked: flavor, color of skin, unblemished, fruit size, juicy, smell, price, specific varieties, where the peaches were from (i.e. California, Georgia, New York, etc.), how the peaches were grown (i.e. organic).
 1) The most important factor: ____________________________________
 2) The second most important factor: ______________________________
 3) The third most important factor: ________________________________

Section III. Questions on Tree-Ripened Fresh Peaches

9. Have you purchased **tree-ripened fresh peaches** in the past?

   ___ **Yes,** please answer Questions 10a & 10b, ____ **No,** please skip to Question 10

   10a. If Yes, where did you purchase them? (CHOOSE ALL APPLICABLES)
   - A. Supermarkets
   - B. Roadside stands
   - C. Farmers' markets
   - D. Others (specify): ___________________________

   10b. Were you very satisfied, satisfied, dissatisfied, or very dissatisfied with the **tree-ripened peaches** you purchased?
   - A. Very satisfied, & Why? _____________________________
   - B. Satisfied, & Why? _____________________________
   - C. Dissatisfied, & Why? _____________________________
   - D. Very dissatisfied, & Why? _____________________________
   - E. Other (specify): _____________________________________

10. If the **tree-ripened peaches** are guaranteed to have the most important qualities you identified for fresh peaches in Question 8 (remind them the qualities identified in Q8 if necessary), would you be willing to pay a higher price for these **premium** **truly-tree ripened peaches**?

   ___ Yes, please answer 11a, ____ No, please skip to 11

   11a. If Yes, How much do you think these quality guaranteed premium-tree ripened peaches will cost?
   $ _____________________________ per pound

11. On a scale of 1 to 5 where **1 is not important at all** and **5 is very important**, how important are the following characteristics to you as a consumer when you are deciding to purchase the **premium truly tree-ripened peaches**:

Rating (1 – 5)	**Characteristic**
_________	Packaged well and appealing
_________	Guaranteed good quality and flavor
_________	An identifiable label or brand
_________	Locally grown (i.e. grown in New York)
_________	Available in the supermarket that I shop at
_________	Available in the local farm stands or farmers' markets
_________	Others, Please Specify ___________________________________

Section IV. Demographic Information

12. Are you currently (Age): (CHOOSE ONE)
    A. Under 25
    B. 25-34
    C. 35-44
    D. 45-54
    E. 55-64
    F. 65 or older

13. Sex (DO NOT READ, JUST CODE)
    A. Male
    B. Female

14. What is the highest level of schooling you have completed? (CHOOSE ONE)
    A. Some high school
    B. Completed high school
    C. Some college
    D. Completed college or more advanced degrees

15. What is your present employment status? (CHOOSE ONE)
    A. Employed full-time
    B. Employed part-time
    C. Not employed

16. How many of these following members are in your household?
    A. Adults 18 and older ___________
    B. Children under 10 _____________
    C. Children between 10 to 14 _____________
    D. Children between 15 to 17 _______________

17. What was your 2001 household income (before tax)?(CHOOSE ONE)
    A. Under $25,000
    B. Between $25,000 - $50,000
    C. Between $50,000 - $75,000
    D. More than $75,000

***** **Thank You Very Much.** *********