October 2015

Final Report

Consumer Blueberry Purchasing Survey

UF | IFAS
UNIVERSITY *of* FLORIDA

Center for
Public Issues Educatio

PIE2015/16-4

For More Information

Contact the Center for Public Issues Education at piecenter@ifas.ufl.edu or 352-273-2598

Suggested Citation

Taylor, M., Rumble, J., & Anderson, S. (2016) Consumer Blueberry Purchasing Survey. PIE2015/16-4 Gainesville, FL: University of Florida/IFAS Center for Public Issues Education.

About the Authors

Joy Rumble, Ph.D. – Assistant professor, UF/IFAS Center for Public Issues Education and Department of Agricultural Education and Communication

Melissa Taylor – Research Coordinator, UF/IFAS Center for Public Issues Education

Sandra Anderson – Research Coordinator, UF/IFAS Center for Public Issues Education

Acknowledgments

Dr. Allen Wysocki – Associate Dean, UF/IFAS, College of Agricultural and Life Sciences
Tori Bradley –Master's Student, Food and Resource Economics Department, University of Florida
Sonia Tighe – Executive Director, Florida Specialty Crop Foundation
Dr. Alexa Lamm – Assistant Director, UF/IFAS Center for Public Issues Education and Department of Agricultural Education and Communication

This research was funded by an FDACS specialty crop block grant and was completed in collaboration with the Florida Specialty Crop Foundation.

Contents

List of Figures

List of Tables

Executive Summary

Florida Blueberry Growers Association
October 2015

Introduction

The Florida blueberry industry is valued at more than $47 million dollars and ranks 7th in blueberry production throughout the nation. Global competition and a short harvest window continually threaten the Florida blueberry industry. This study was done as part of a larger project to increase the marketability of Florida-grown blueberries by identifying barriers among producers and consumers, while also developing a marketing plan with a unified image and strategy for the industry. Ultimately the goal is to increase the marketability of Florida grown specialty crops and increase consumer knowledge of the nutritional benefits of blueberries.

Findings

Demographics of Purchasers and Non-Purchasers

- Forty-one percent of respondents who purchased blueberries were between the ages of 30 and 49.
- For non-purchasers, the majority (47%) were between the ages of 50 and 69.
- Gender results for purchasers and non-purchasers were similar. In both cases, a quarter of the respondents were male, whereas three-quarters of the respondents were female.
- Only 8% of the purchasers identified as Hispanic and only 5% of the non-purchasers identified as Hispanic.
- The majority of respondents were white (80% purchasers, 77% non-purchasers).
- Less than half (28%) of the respondents who purchased blueberries earned an annual income of less than $30,000, while just more than half (52%) of the non-purchasers made less than $30,000.
- The most common level of education among the purchasers was *some college education, but no degree* (28%), while *high school graduate (including GED)* (31%) was the most common level of education among non-purchasers.
- The most respondents among both the purchasers (35%) and non-purchasers (37%) identified as Democrats. Majority of purchasers and non-purchasers identified as Democrat.
- Most respondents indicated that they had Moderate political beliefs (45% among purchasers and non-purchasers).

Cooking Habits for Respondents

- Purchasers and non-purchasers both agreed or strongly agreed that food quality is very important (97%, 95%), they are interested in health aspects of food products (87%, 68%), and they try new products (85%, 68%).

Statements About Blueberries

- Purchasers and non-purchasers both agreed or strongly agreed that blueberries are a nutritious food (98%, 90%), that blueberries were delicious (97%, 64%), and that blueberries were easy to find (78%, 50%).

Barriers to Blueberry Purchases

- Purchasers identified the following barriers to blueberry purchases: availability of fresh blueberries (60%), followed by price (54%), and quality (46%).
- Non-purchasers identified the following barriers to blueberry purchases: enjoyed other fruits (29%), followed by equal percentages (25%) of non-respondents feeling price and not liking blueberries were barriers.

Purchasing Habits for Blueberries by Purchasers

- The majority (78%) of respondents reported purchasing blueberries from the supermarket followed by a retail store like Target or Wal-Mart (47%), and reported purchasing from a farmers market (33%).
- Locally grown (66%), direct contact with the grower (64%), and high quality (51%) were listed as the top representative characteristics of Farmers Markets where blueberries were purchased.
- Convenience was listed as the top reason for making blueberry purchases at supermarkets (83%) or retail stores like Target or Wal-Mart (72%).
- Equal percentages of respondents (50%) purchased blueberries two to three times a month or more because the blueberries caught their eye in the store or were part of their typical grocery purchases .
- More than half of respondents (54%) indicated they consume blueberries straight out of the container, without adding anything, followed by 50% using blueberries as a supplement, in addition to other food on average of two-three times a month or more.
- Respondents found that freshness, taste, color, nutrition, smell, and size were all slightly important to important when making their blueberry purchasing decisions. Additionally, they reported being slightly satisfied to satisfied with these blueberry attributes when making their purchasing decisions.
- The majority of respondents (92%) reported purchasing blueberries in the summer, followed by 65% in the spring.
- The majority of respondents agreed or strongly agreed that they looked to see where the blueberries were grown (58%), followed closely by 55% agreeing or strongly agreeing that they could easily find the growing location of blueberries on the label.
- When looking at different images of blueberry packages, 71% of respondents preferred the image of blueberries with the "Fresh from Florida" logo on the label.
- Respondents were asked which blueberries they would purchase if they were given a choice of labels with the following growing locations: Florida, United States, Michigan, New Jersey, Georgia, California, North Carolina, New York, Mississippi, Washington, Oregon, or Chile. Thirty percent preferred blueberries grown in Florida, followed by 25% preferring blueberries grown in the United States.

Labels - Purchasers

- Respondents indicated that Grown in the US (92%), All Natural (89%), and Pesticide free (88%), were labels that they felt were slightly important or important.
- Respondents indicated that they were slightly satisfied or satisfied with Grown in the US (89%), All Natural (82%), and locally grown (83%) labels when making purchasing decisions.

Blueberry Purchasing Habits by non-purchasers

- Thirty-one percent of non-purchasers indicated they had consumed blueberries in the past year.
- The majority of respondents (62%,) indicated they used blueberries for an ingredient in a dish once a month or less. Sixty-one percent indicated they consumed blueberries straight out of the container once a month or less.

Packaging

- More than half of respondents (52%) indicated that a 1 pint package was ideal for their household.

Experience with Blueberries

- Less than half (38%) of respondents reported they have handpicked blueberries. Followed by 35% reporting they have seen a blueberry field in person. Only 11% reported having personally grown their own blueberries.

Florida Blueberries

- The majority of respondents (84%) did not know when Florida's blueberry growing season took place.
- Those who reported knowing when Florida's blueberry season was, were asked to indicate which months they believed Florida blueberries were in season. Fifty-six percent reported June, 54% said May, and 49% said April.
- An attitude index was created and we found the respondents had mean score of 4.16 indicating a positive attitude toward Florida blueberries.
- Thirty-four percent responded that they had seen Florida Blueberries for sale in their local area.
- The majority of respondents (58%) reported that they never or rarely looked for Florida grown blueberries.
- Slightly less than half (45%) of respondents reported having tasted Florida blueberries in the past.
- Ninety-two percent indicated that they had never visited a Florida blueberry farm in person.
- Forty-one percent responded that they had seen the Fresh from Florida logo.
- A Fresh from Florida logo attitude index was created and we found a mean of 4.20, indicating that majority of the respondents had a positive attitude toward the Fresh from Florida logo.

Purchasers of Blueberries and those who have seen Florida blueberries sold locally

- Respondents were asked how important the presences of a Fresh from Florida logo on the package was to them. Overall, 78% indicated that the logo was important to slightly important.
- Ninety percent responded that they would prefer to purchase Florida blueberries if given the choice.
- Respondents were asked why they would prefer to purchase Florida blueberries if given the choice. Taste (76%), freshness (75%), and quality (69%) were the top three reasons respondents preferred to purchase blueberries from Florida.
- A transparency index was created with a mean of 3.67 indicating that respondents felt that the information available about Florida blueberries was transparent.

Learning Opportunities about Florida Blueberries

- The majority (57%) of respondents indicated they would prefer to visit a website, followed by read printed fact sheets (41%), and watch TV coverage (29%) to learn more about Florida blueberries.

Background

The Florida blueberry industry is valued at more than $47 million dollars and ranks 7th in blueberry production through the nation. Global competition and a short harvest window continually threaten the Florida blueberry industry. To ensure the future sustainability of the industry, the Florida Blueberry Growers Association sees optimization of marketing, consumer awareness, and industry collaboration as necessary. In the summer of 2015, the PIE center created a survey to send out to states where Florida blueberries are purchased to identify barriers to consumption among consumers, to aid in the development of a marketing plan with a unified image and message strategy for the industry. The research was funded by an FDACS specialty crop block grant and was completed in collaboration with the Florida Specialty Crop Foundation.

Additionally, this survey sought to examine

- Consumers' purchasing habits of blueberries
- Consumers' attitudes toward blueberries (purchasers and non-purchasers)
- Consumers' preferences for different blueberry growing locations
- Consumers' knowledge of blueberry health benefits and Florida blueberry season
- Consumers' familiarity and preference for Florida blueberries
- Consumers' preferences for promoting Florida blueberries

Methods

An online survey was created and distributed to 3,112 residents living in locations receiving shipments of Florida blueberries. Those states were Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Vermont, Pennsylvania, Ohio, West Virginia, Tennessee, Alabama, Mississippi, Louisiana, Arkansas, Missouri, Iowa, Illinois, Wisconsin, Michigan, Minnesota, Indiana, and Kentucky (S. Tighe, personal communications, June 23, 2015). There were a total of 2,100 useable responses. Of the useable responses, 1,569 were from respondents who had purchased blueberries within the past year and 531 were from respondents who had not purchased blueberries within the past year. Since non-probability sampling was used, responses were weighted by regional population according to the 2010 U.S. Census, to reduce any regional bias (Baker et al., 2013). The regions included South Atlantic (FL, GA, SC, NC, VA, WV, MD, DE), Mid Atlantic (PA, NY, NJ, CT), New England (NH, VT, ME, MA, RI), East South Central (AL, MS, TN, KY), East North Central (OH, IN, IL, MI, WI), West South Central (AR, LA), West North Central (MN, IA, MO). The states included in the West South Central and West North Central regions were adapted to include only the states where Florida-grown blueberries were shipped and respondents resided.

The survey questions in the instrument were researcher developed and adapted from a previous survey related to Florida strawberries (Ruth & Rumble, 2015). Additionally, some questions were adapted from Cheryl Brown's 2003 study "Consumers' preference for locally produced food: A study in Southeast Missouri." Prior to distribution, a panel of experts reviewed the survey instrument.

Results

The results to the survey have been described in the following sections.

Purchase Blueberries

At the beginning of the survey, respondents were asked if they had purchased blueberries within the past year. The majority of the respondents answered Yes (75%, *n* = 1569), whereas 25% (*n* = 531) responded no.

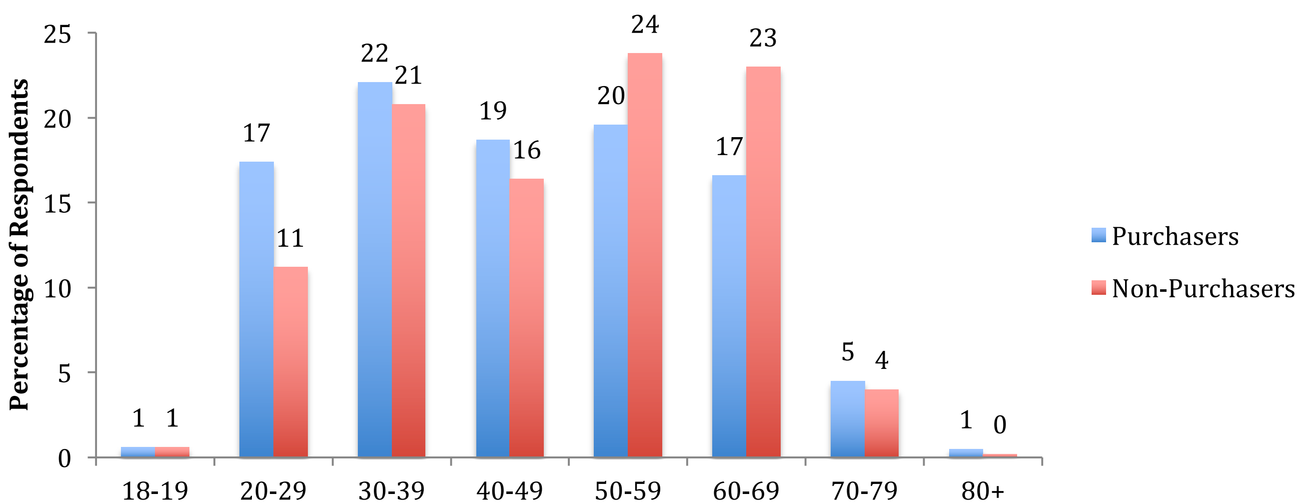
Demographics of Purchasers and Non-Purchasers

The demographic description between purchases and non-purchaser respondents has been included to aid in the interpretation of the results

Age

Of the respondents who purchased blueberries, most of the respondents were between the ages of 30 and 49 (41%), while 37% were between the ages of 50 and 69. Of the non-purchasing respondents, 47% were between the ages of 50-69, while 37% were between 30-49 (Figure 1).

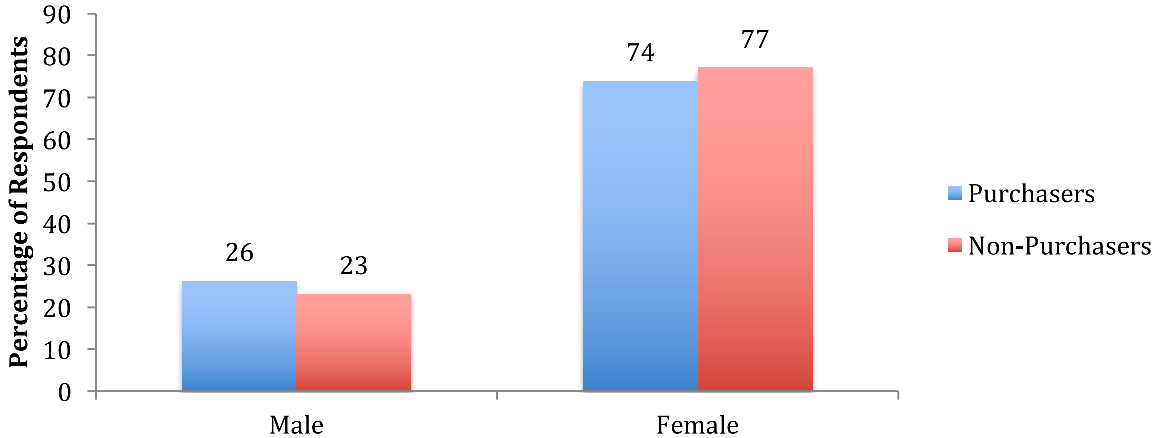
Figure 1. Age of the respondents



Gender

Twenty –six percent of the purchasers were male and 74% were female. Twenty-three percent of the non-purchasers were male and 77% were female (Figure 2).

Figure 2. Gender

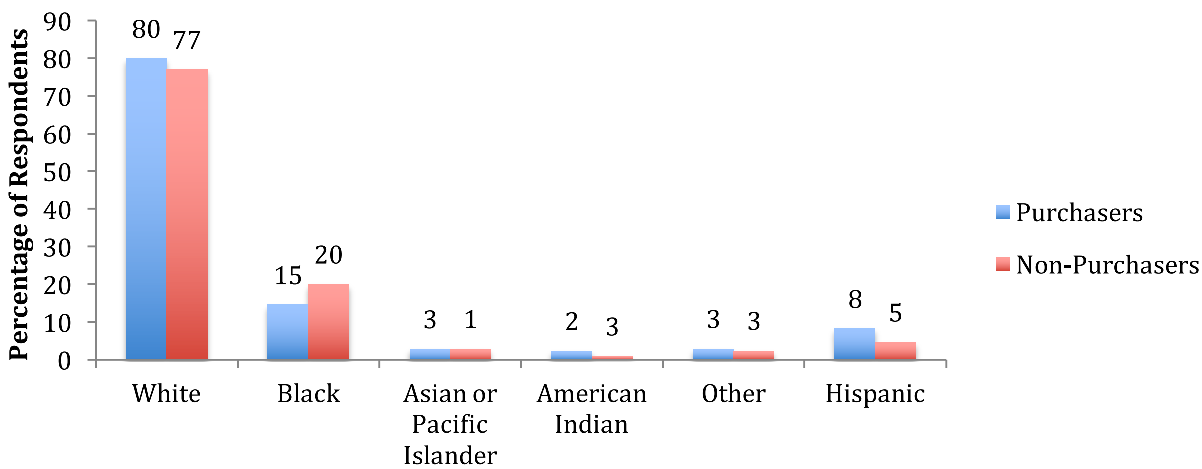


Race and Ethnicity

Respondents were asked to identify their ethnicity. Only 8% of the purchasers identified as Hispanic and only 5% of the non-purchasers identified as Hispanic (Figure 3).

Additionally, Figure 3 shows that in both categories the majority of respondents were White (purchasers 80%; non-purchasers 77%) followed by African American (purchasers 15%; non-purchasers 20%).

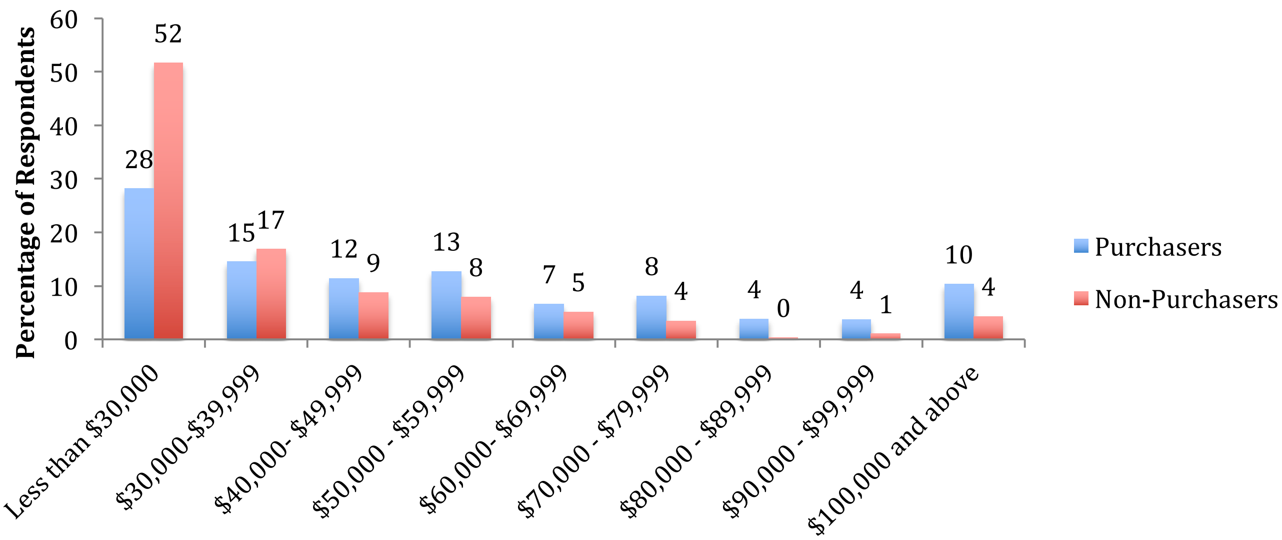
Figure 3. Race and Ethnicity



Income

The most common annual income among respondents was less than $30,000. Of purchasers, 28% were identified as making less than $30,000. Of non-purchasers, 52% made less than $30,000 (Figure 4).

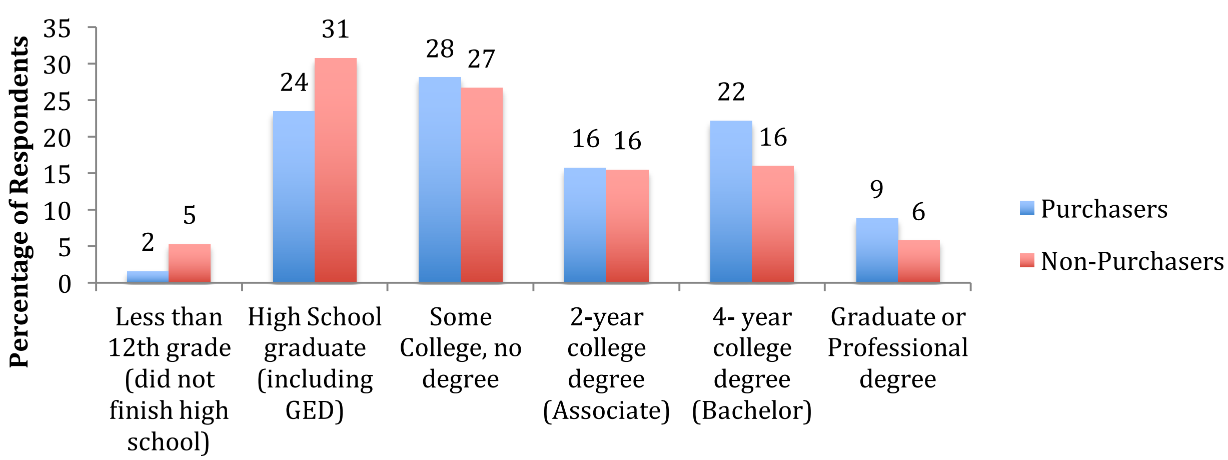
Figure 4. Income



Education

Respondents were asked the highest level of education they have obtained. The most common highest level of education among non-purchasers (31%) was High School Graduates (including GED). Some college education, but no degree was the most common level of education among purchasers (28%) (Figure 5).

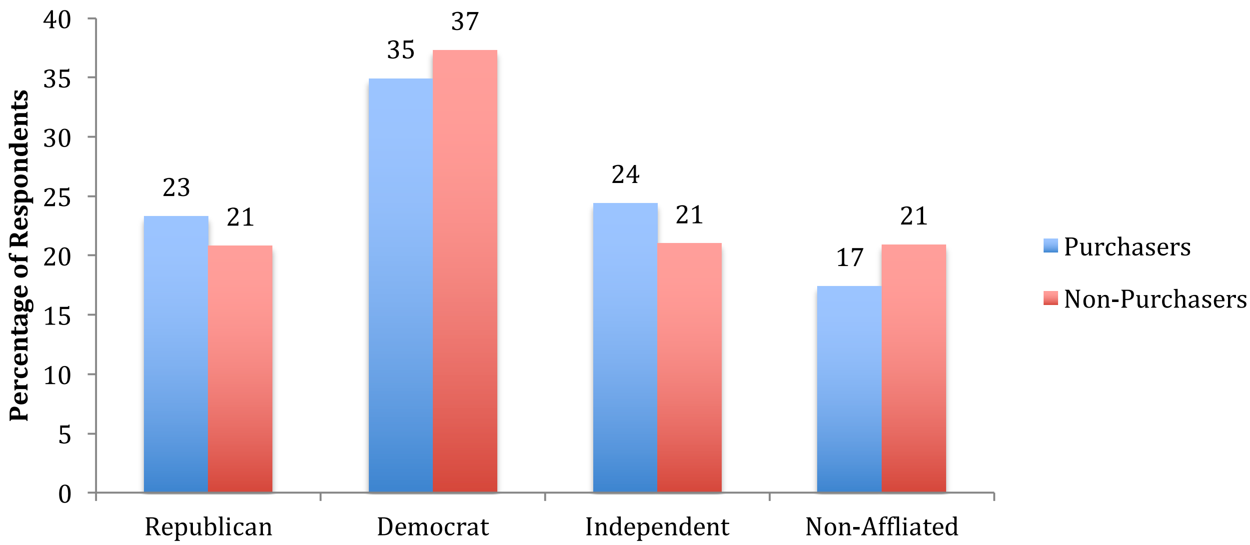
Figure 5. Education



Political Affiliation

Respondents were also asked about their political affiliation. Of the purchasers, 35% and of the non-purchasers, 37% identified as Democrat (figure 6).

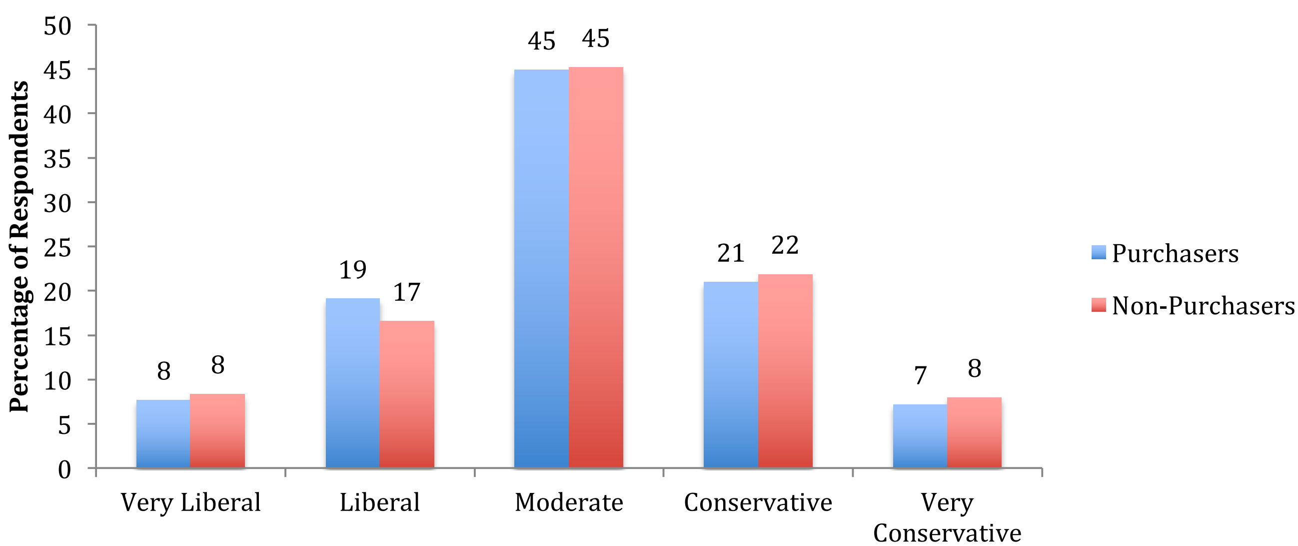
Figure 6. Political Affiliation



Political Beliefs

Respondents were asked their political beliefs. Forty-five percent of purchasers and non-purchasers identified their political beliefs as Moderate (Figure 7).

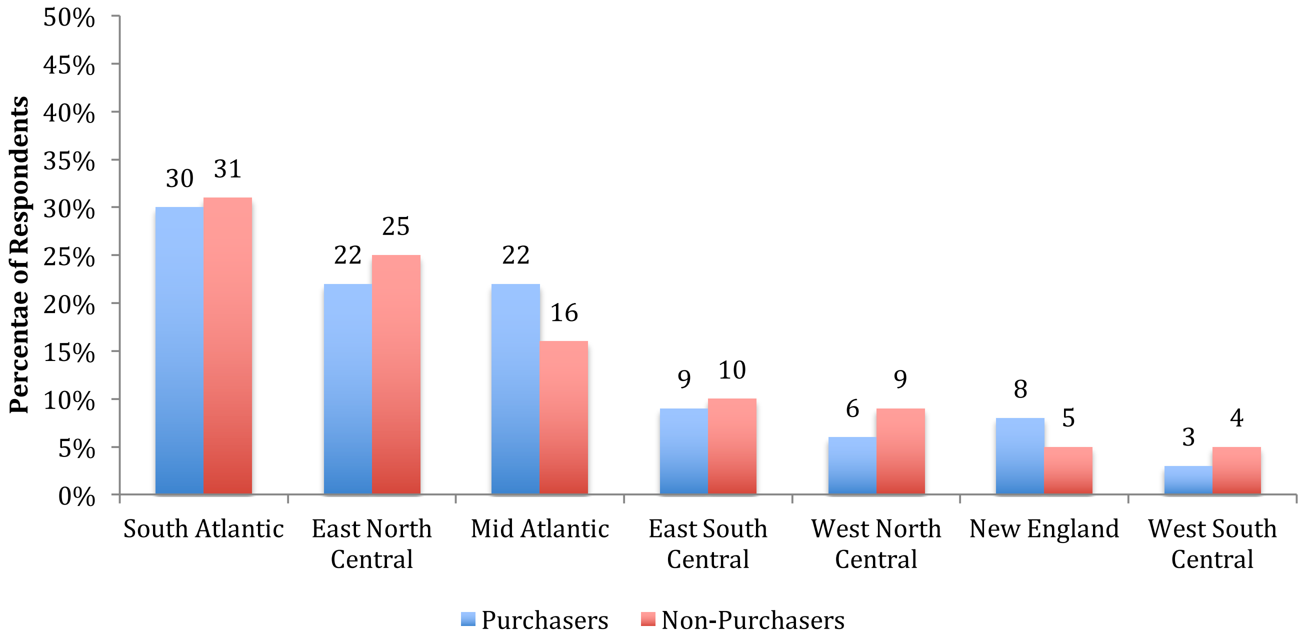
Figure 7. Political Beliefs



Regions and States

The survey was sent to states receiving shipments of Florida blueberries (Figure 8). The highest percentage of respondents were located in the South Atlantic Region, which included Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

Figure 8. Regions and States



Cooking Habits for Respondents (*All Respondents, n = 2100)*

A researcher created question was developed to identify common cooking habits for respondents. For purchasers the majority of respondents agreed or strongly agreed that food quality is very important (97%), cooking interest them a great deal (83%), they plan their meals (78%), try new products (85%), read product information when grocery shopping (78%), look for new recipes (82%), look for new ways of cooking (80%), and are interested in health aspects of food products (87%) (Figure 9).

For non-purchasers, the majority of respondents agreed or strongly agreed that food quality was important (95%), cooking interested them a great deal (64%), they planned their meals (57%), they try new products (68%), read product information while grocery shopping (54%), look for new recipes (65%), look for new ways of cooking (59%), and are interested in the health aspects of food products (68%) (Figure 10).

Figure 9. Purchasers' Cooking Habits (n = 1569)

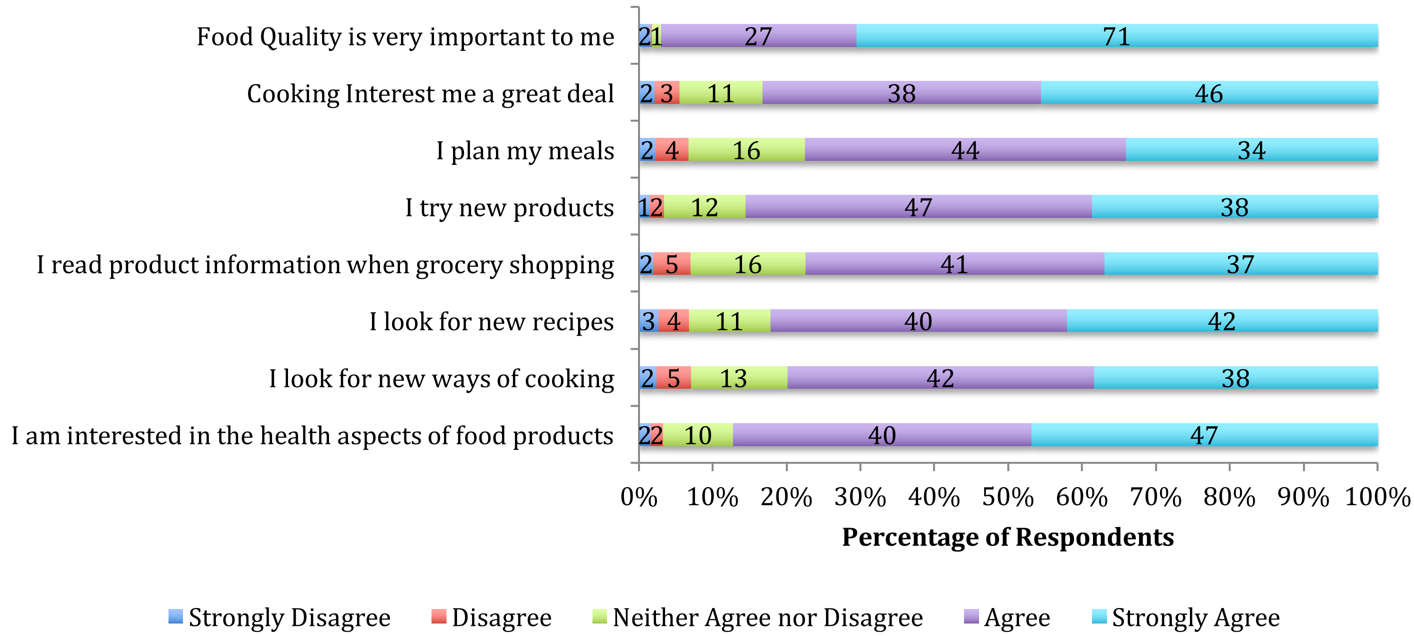
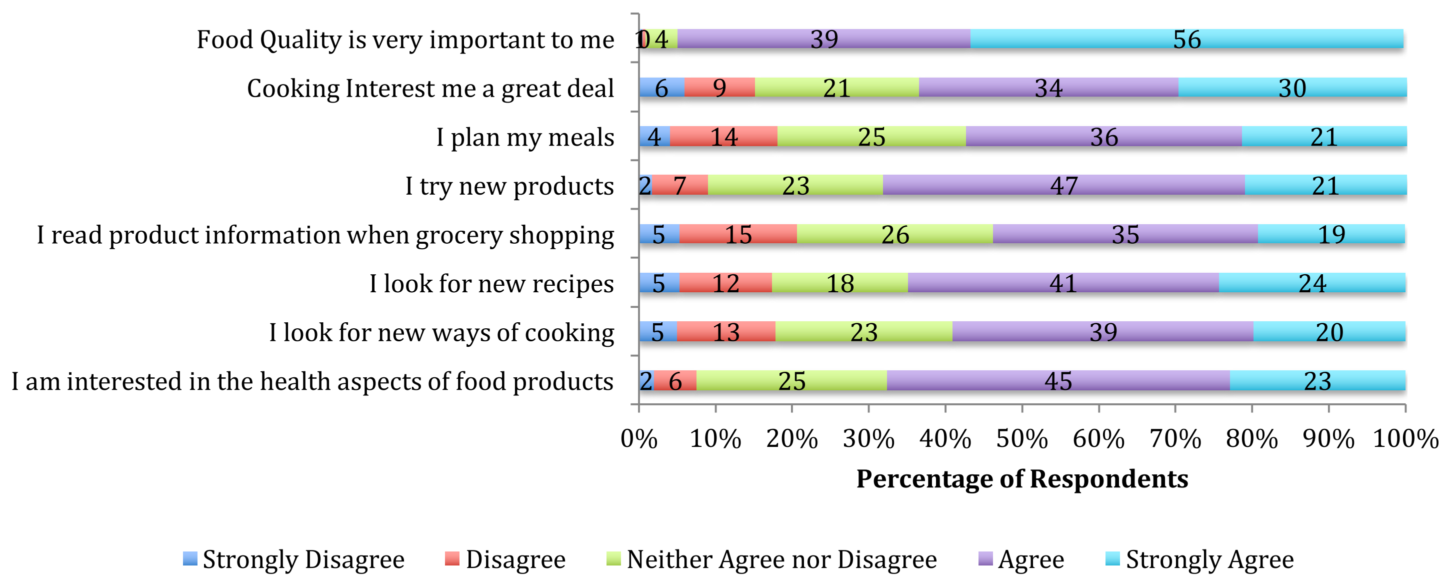


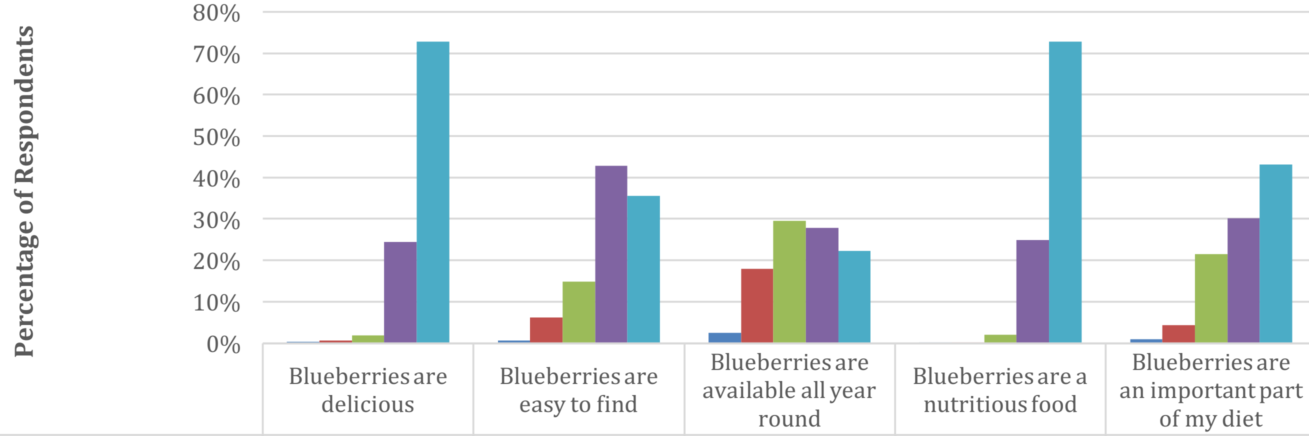
Figure 10. Non- Purchasers' Cooking Habits (n = 531)



Statements about Blueberries *(All respondents, n = 2100)*

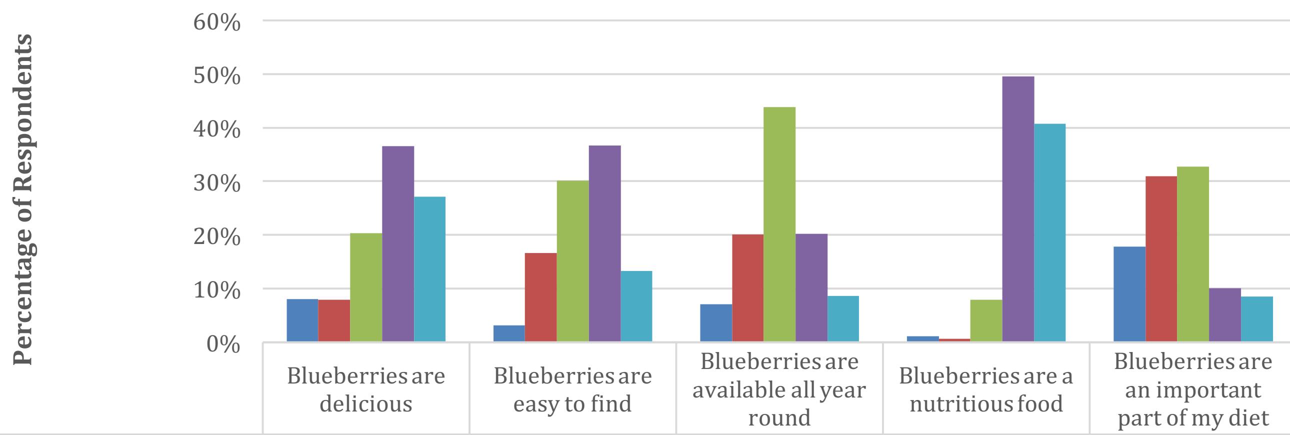
All respondents were asked their level of disagreement or agreement with statements about blueberries. Ninety-eight percent of purchasers agreed or strongly agreed that blueberries are a nutritious food, 97% agreed or strongly agreed that blueberries were delicious, and 78% agreed or strongly agreed they were easy to find (Figure 11). Ninety percent of non-purchasers agreed or strongly agreed that blueberries are a nutritious food, 64% agreed or strongly agreed that blueberries were delicious, and 50% agreed or strongly agreed they were easy to find (Figure 12).

Figure 11. Statements about Blueberries (Purchasers, n = 1569)



	Blueberries are delicious	Blueberries are easy to find	Blueberries are available all year round	Blueberries are a nutritious food	Blueberries are an important part of my diet
Strongly Disagree	0%	1%	3%	0%	1%
Disagree	1%	6%	18%	0%	4%
Neither Agree nor Disagree	2%	15%	30%	2%	22%
Agree	24%	43%	28%	25%	30%
Strongly Agree	73%	36%	22%	73%	43%

Figure 12. Statements about Blueberries (Non-purchasers, n = 531)

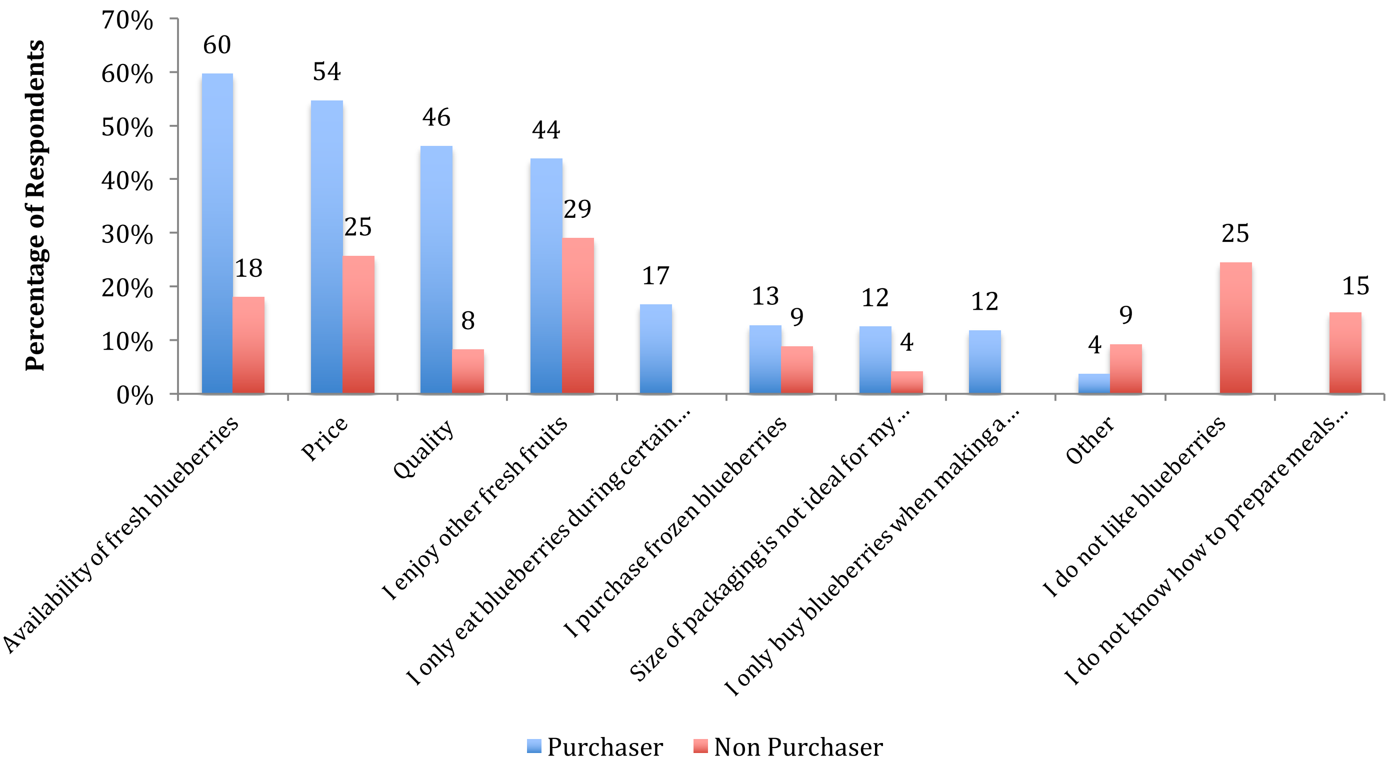


	Blueberries are delicious	Blueberries are easy to find	Blueberries are available all year round	Blueberries are a nutritious food	Blueberries are an important part of my diet
Strongly Disagree	8%	3%	7%	1%	18%
Disagree	8%	17%	20%	1%	31%
Neither Agree nor Disagree	20%	30%	44%	8%	33%
Agree	37%	37%	20%	50%	10%
Strongly Agree	27%	13%	9%	41%	9%

Barriers to Blueberry Purchases *(All Respondents, n = 2100)*

Respondents were asked to identify what barriers existed that limited their ability to purchase blueberries (Figure 13). For purchasers, availability of fresh blueberries (60%), price (54%), and quality (46%) were the most common barriers. Only 4% indicated other as a reason for not purchasing blueberries. Some of the reasons listed included not in season and grow them personally. For non-purchasers, enjoying other fruits (29%) was the most common barrier. Equal percentages (25%), indicated that the price and not liking blueberries were common barriers. Of the 9% of non-purchasers who chose other, some of the reasons included allergies, diverticulitis, or growing them personally.

Figure 13. Barriers to blueberry purchases



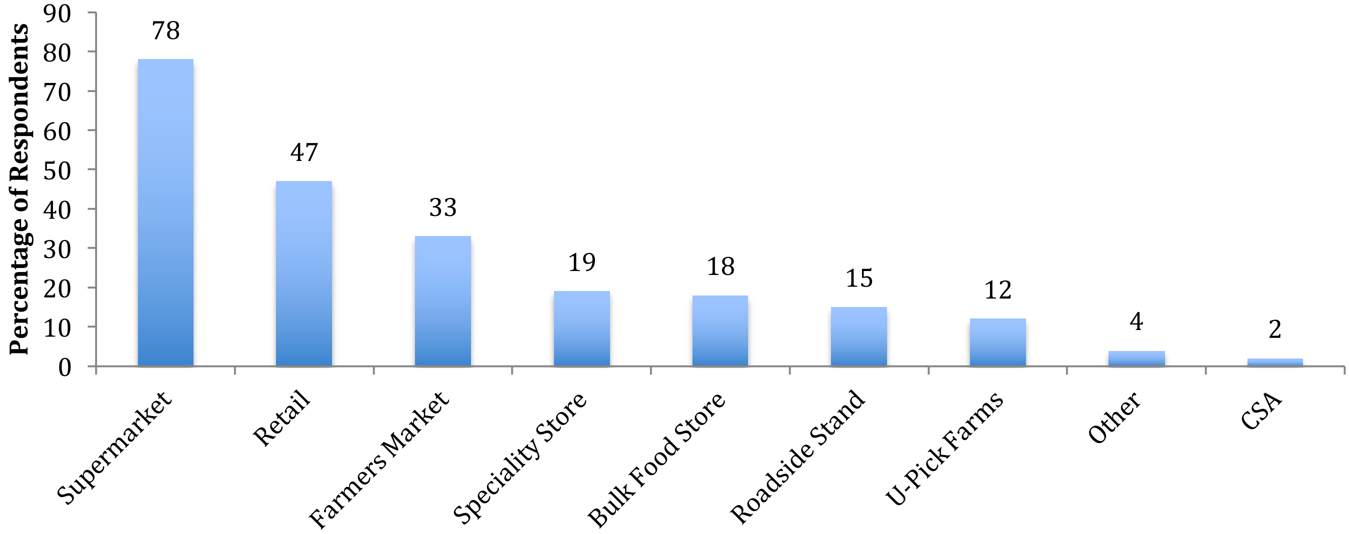
Purchasing Habits for Blueberries by Purchasers

The respondents were asked to answer a variety of questions regarding their purchasing habits of blueberries. These questions were only given to those who were identified as purchasers of blueberries.

Where Fresh Blueberries are Typically Purchased (*n* = 1569)

Respondents were given a check all that apply question to identify where they typically purchased fresh blueberries (Figure 14). The majority (78%) of respondents reported purchasing blueberries from the supermarket. Forty-seven percent reported purchasing them from a retail store like Target or Wal-Mart, and 33% reported purchasing them from a farmers' market.

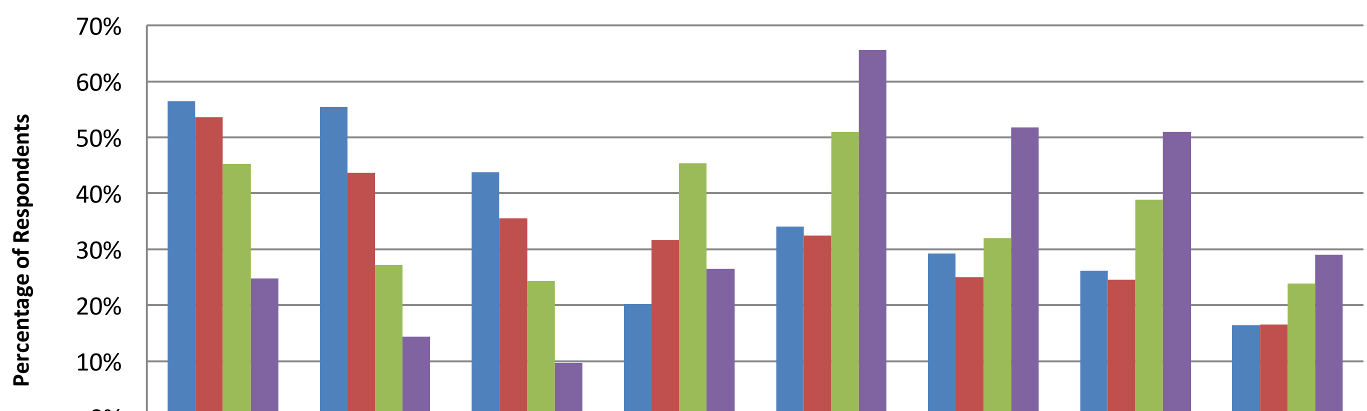
Figure 14. Location where fresh blueberries are typically purchased



Representative Characteristics of Supplier Locations (*Purchasers, n = 1569*)

This question was adapted from the Brown (2003) study. Purchasers were asked what characteristics were representative of the location they purchased blueberries from. They could select as many answers that applied. Supermarkets ranked highest in affordable price (57%) and availability (54%). Retail stores ranked highest in affordable price (55%) and availability (44%). Farmers markets were ranked highest in locally grown (66%) and high quality (51%). Additional data can be found in Figure 15.

Figure 15. Representative Characteristics of Retail Locations

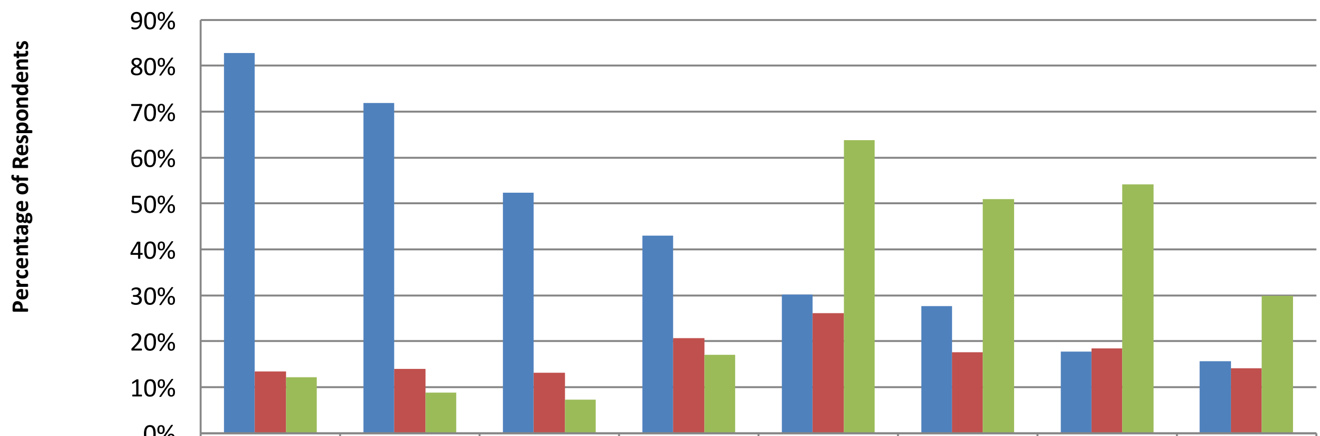


	Supermarket	Retail	Bulk Food Store	Speciality Store	Farmers Market	Roadside Stand	Upick Farms	CSA
Affordable Price	57%	55%	44%	20%	34%	29%	26%	16%
Available	54%	44%	36%	32%	33%	25%	25%	17%
High Quality	45%	27%	24%	45%	51%	32%	39%	24%
Locally Grown	25%	14%	10%	27%	66%	52%	51%	29%

Reasons for Purchasing Blueberries from Supplier Locations (*Purchasers, n = 1569*)

This question was adapted from the Brown (2003) study. Purchasers were asked about the reasons they chose to purchase blueberries from different suppliers. They could select as many answers that applied. Supermarkets (83%) and retail stores (72%) ranked highest in convenience. Farmers markets (64%), Upick farms (54%) and roadside stands (51%) were ranked highest in direct contact with the grower. Additional data can be found in Figure 16.

Figure 16. Reasons for purchasing blueberries from supplier locations

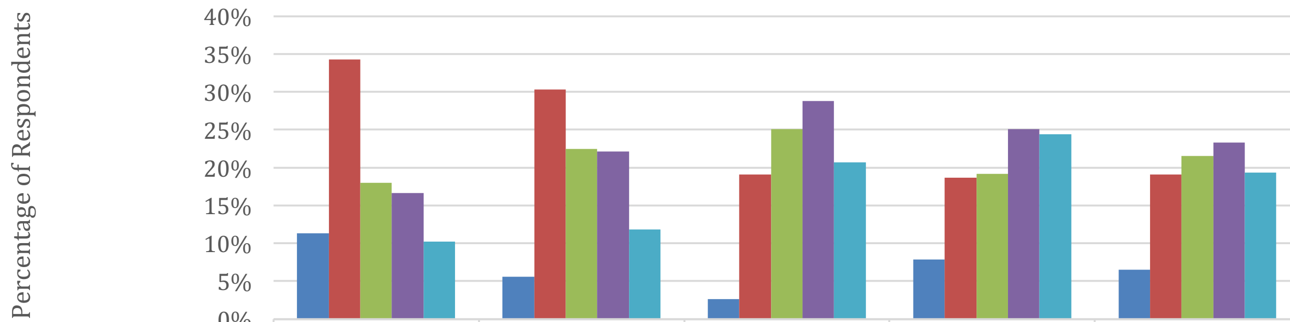


	Supermarket	Retail	Bulk Food Store	Speciality Store	Farmers Market	Roadside Stand	Upick Farms	CSA
Convenience	83%	72%	52%	43%	30%	28%	18%	16%
Social Atmosphere	13%	14%	13%	21%	26%	18%	19%	14%
Direct Contact with Grower	12%	9%	7%	17%	64%	51%	54%	30%

Why Purchasers Buy Fresh Blueberries (*Purchasers, n = 1569*)

The respondents were asked under what circumstance they purchased blueberries during a typical month. Respondents purchased blueberries two or three times a month or more because blueberries caught their eye in the store (50%) or were part of their typical grocery purchases (49%). Respondents indicated they were buying blueberries less than once a month or never for a special occasion (45%) or for a specific recipe (36%). More data can be found in Figure 17.

Figure 17. Why purchasers buy fresh blueberries

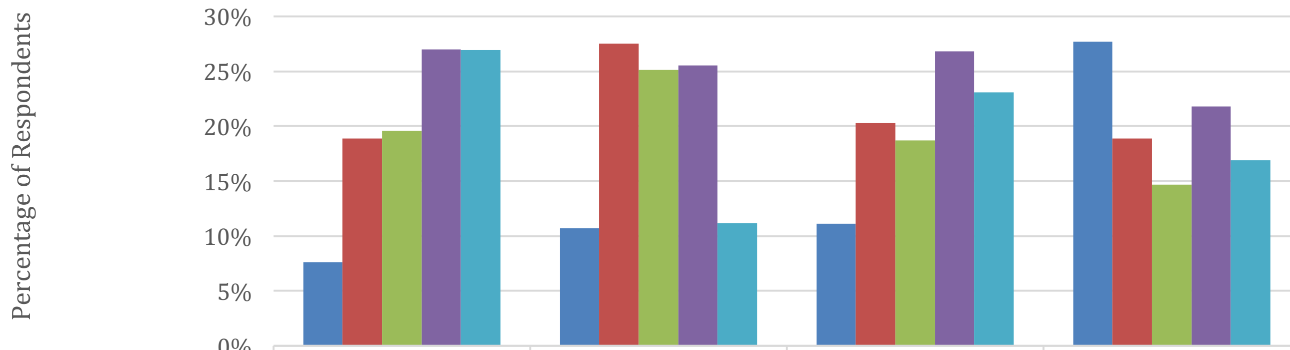


	For a special occasion	When they are needed for a specific recipe	When they catch my eye in the store	As a part of my typical grocery purchases	When they have been requested by someone in my home
Never	11%	6%	3%	8%	7%
Less than once a month	34%	30%	19%	19%	19%
Once a month	18%	23%	25%	19%	22%
2-3 Times a Month	17%	22%	29%	25%	23%
Once a Week or more Often	10%	12%	21%	24%	19%

How often fresh blueberries are Consumed/Prepared (*Purchasers, n = 1569)*

Respondents were asked how often they prepared/consumed their blueberries during a typical month (Figure 18). Just over half of respondents (54%) indicated they consume blueberries straight out of the container, without adding anything two-three times a month or more. Fifty percent indicated they used blueberries as a supplement, in addition to other food two- three times a month or more. Forty-seven percent indicated that less than once a month they used blueberries in addition to drinks or smoothies.

Figure 18. How often fresh blueberries are consumed/prepared



	Consume straight out of the container, without anything added	Ingridient for a dish (pancakes, jams)	Supplement/added to other food (cereal, yogurt)	In addition to drinks (smoothie)
Never	8%	11%	11%	28%
Less than once a month	19%	28%	20%	19%
Once a month	20%	25%	19%	15%
2-3 Times a Month	27%	26%	27%	22%
Once a Week or more Often	27%	11%	23%	17%

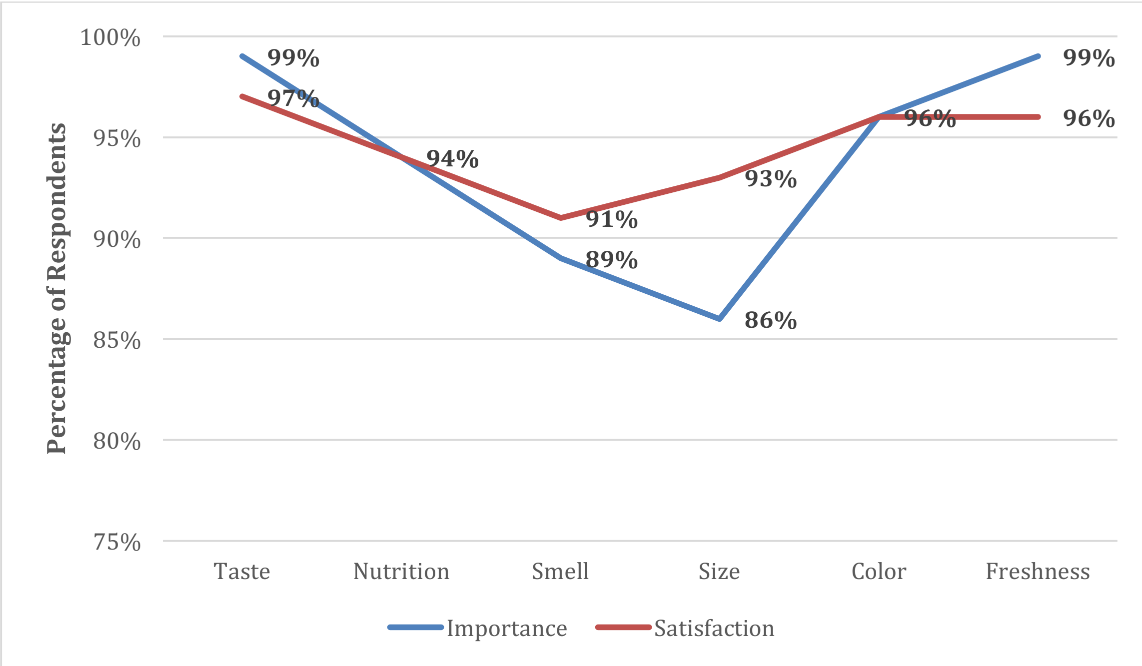
Physical Attributes

Respondents were asked to indicate how important/unimportant and how satisfied unsatisfied the following physical attributes were to their purchase of blueberries.

Physical Blueberry Attributes (*Purchasers, n = 1569*)

Respondents were asked if they considered different physical attributes of blueberries when making their purchasing decisions (Figure 19). The overwhelming majority of respondents found that taste, nutrition, smell, size, color, and freshness were all slightly important or important to their blueberry purchases and they were slightly satisfied or satisfied with these attributes.

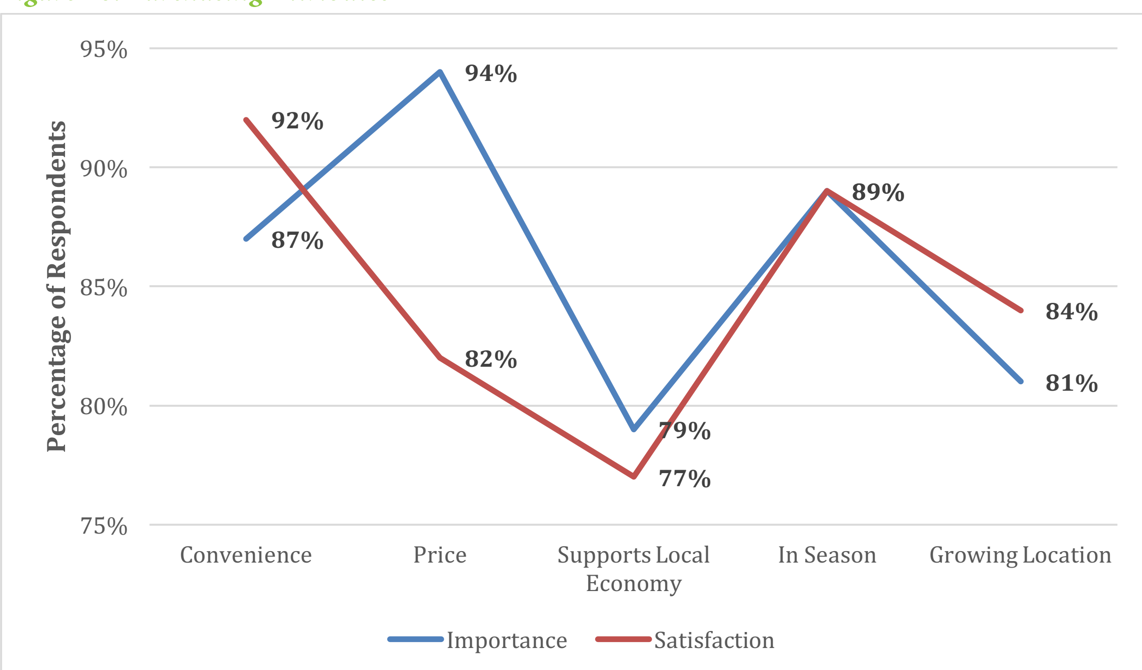
Figure 19. Physical Attributes



Purchasing Attributes (*Purchasers, n = 1569)*

Respondents were asked to identify if the following purchasing attributes were important or unimportant and satisfied or unsatisfied when purchasing blueberries (Figure 20). Again the majority found that Convenience, Price, Supporting Local Farmers, in season, and growing location were slightly important to important and they were slightly satisfied to satisfied with these attributes when making their purchasing decisions.

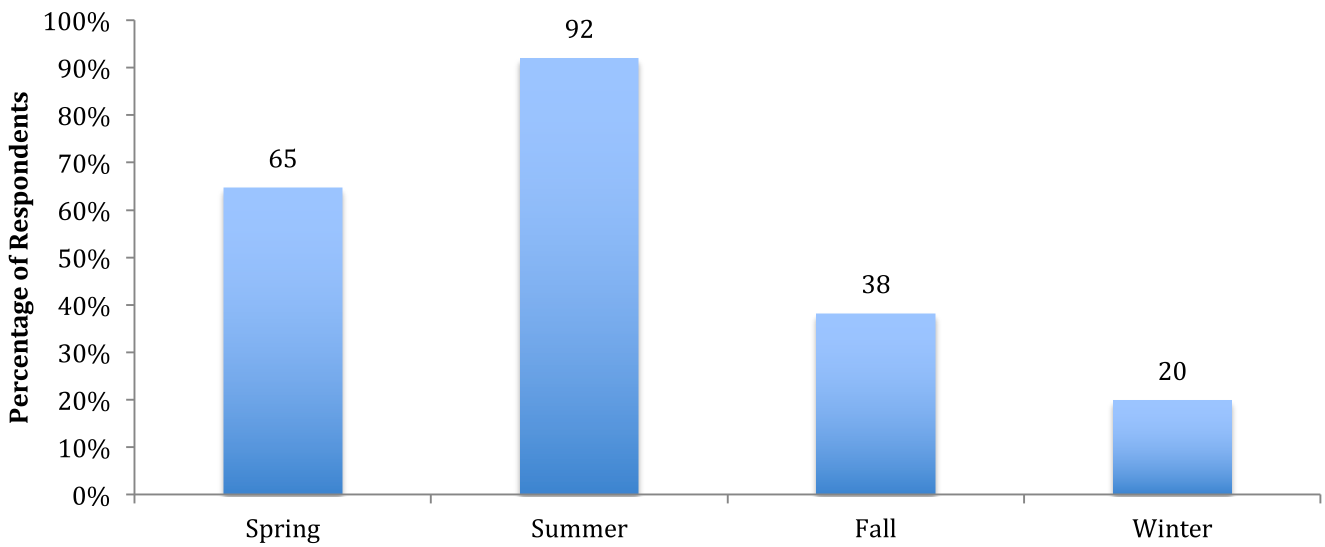
Figure 20. Purchasing Attributes



Seasons (*Purchasers, n = 1569)*

Respondents were asked to report which seasons they purchased fresh blueberries (Figure 21). The question was a check all that apply question, and the majority of respondents (92%) reported purchasing them in the summer, followed by 65% purchasing in the spring. Twenty- percent reported purchasing in the winter.

Figure 21. When Fresh Blueberries are purchased



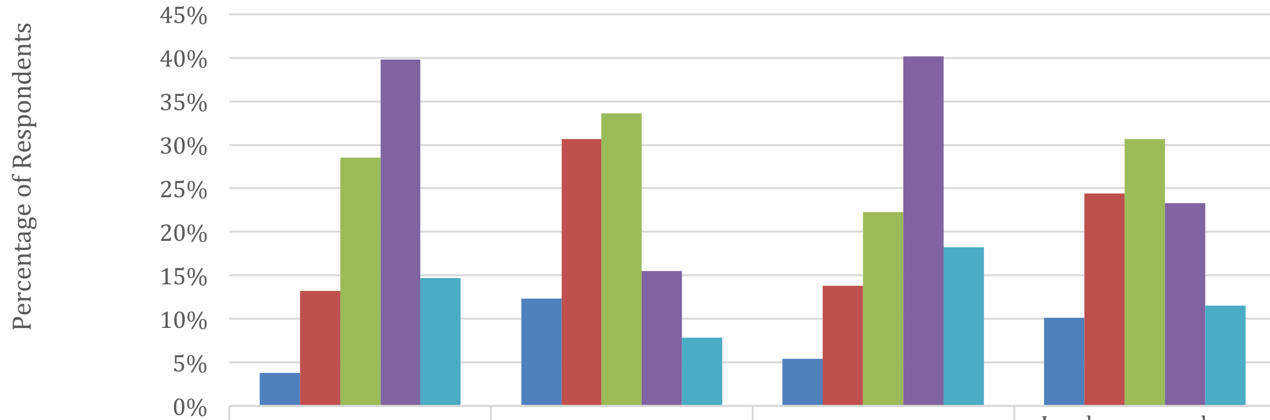
Packaging (*Purchasers)*

After respondents answered questions about how, why, and when they typically purchased blueberries, they were given specific questions related to the packaging and labels of fresh blueberries.

Information on Label (*Purchasers, n = 1569)*

Respondents were asked how they used labels when making blueberry purchasing decisions (Figure 22). The majority of respondents agreed or strongly agreed that they looked to see where the blueberries were grown (58%). This was followed closely by 55% agreeing or strongly agreeing that they could easily find the growing location of blueberries on the label. Forty-three percent strongly disagreed or disagreed that they were loyal to specific blueberry brands.

Figure 22. Label Usage

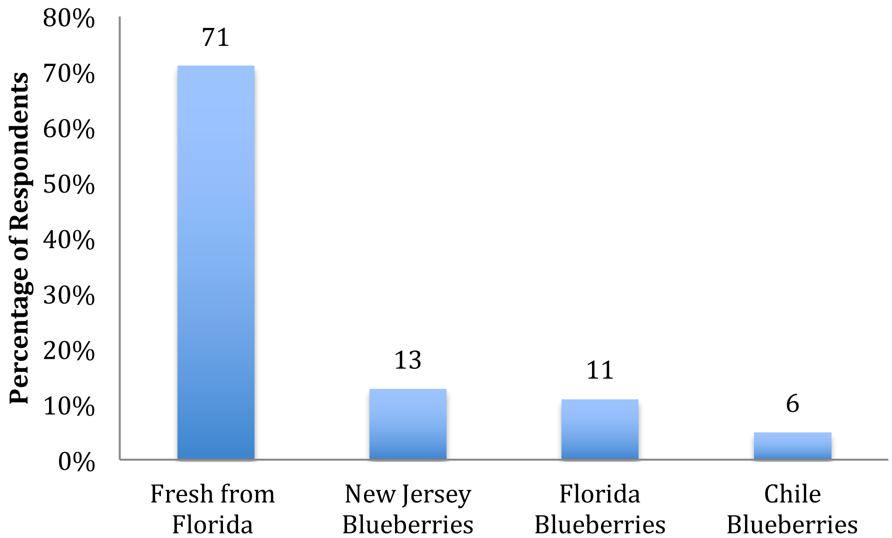


	I can easily find the growing location of blueberries on the label	I am loyal to specific blueberry brands	I look on the label to see where the blueberries are grown	I make my purchase based on where the label says the blueberries were grown
Strongly Disagree	4%	12%	5%	10%
Disagree	13%	31%	14%	24%
Neither Agree nor Disagree	29%	34%	22%	31%
Agree	40%	16%	40%	23%
Strongly Agree	15%	8%	18%	12%

Label Choice (*Purchasers, n = 1569)*

Respondents were given the choice between four different packages of blueberries (Figure 23). All were identical, except the growing locations were different: Chile, Florida, and New Jersey. There were two packages from Florida, one looked like the packages from Chile and New Jersey, and the other had the Fresh from Florida logo on the label. These pictures can be found in Appendix A. Respondents were asked to act like they were in a grocery store and take no more than 10 seconds to select a package they would purchase. The majority (71%) selected the package with the Fresh from Florida logo.

Figure 23. Label Choice



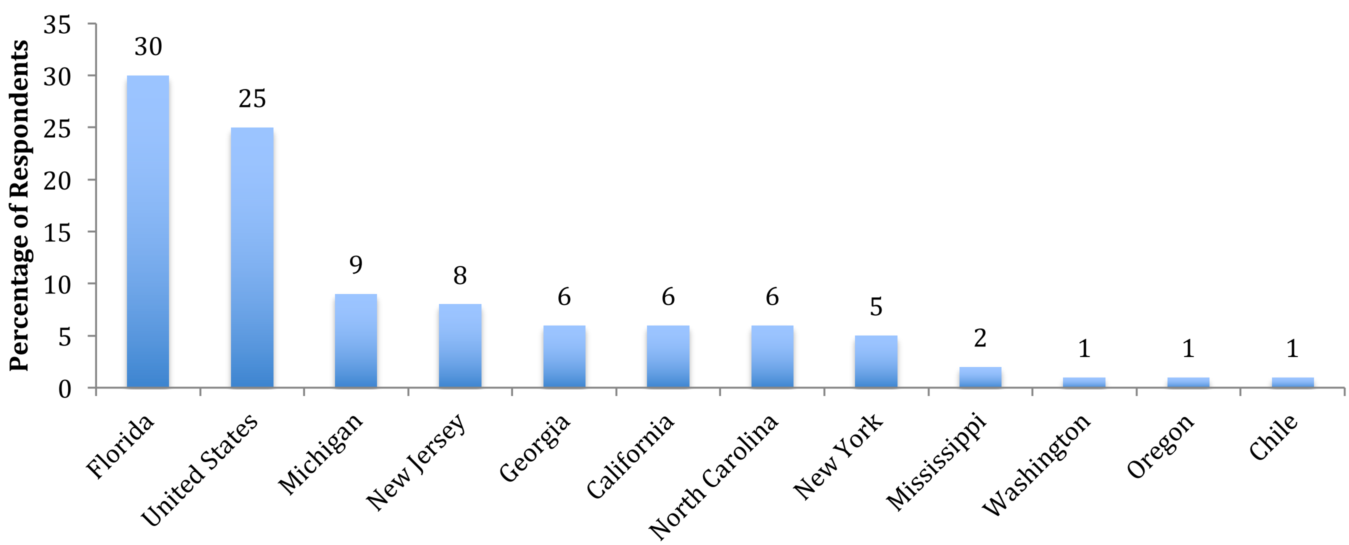
Location Preferences (*Purchasers, n = 1569)*

Respondents were asked a series of questions to determine their preference for different growing locations of blueberries.

Growing Location

Respondents were asked which blueberries they would purchase if they were given a choice of labels with the following growing locations: Florida, United States, Michigan, New Jersey, Georgia, California, North Carolina, New York, Mississippi, Washington, Oregon, or Chile (Figure 24). The highest percentage of respondents (30%) said they would prefer blueberries grown in Florida, followed by 25% preferring a United States label. Only 9% preferred blueberries grown in Michigan.

Figure 24. Blueberry Location Preferences based on label



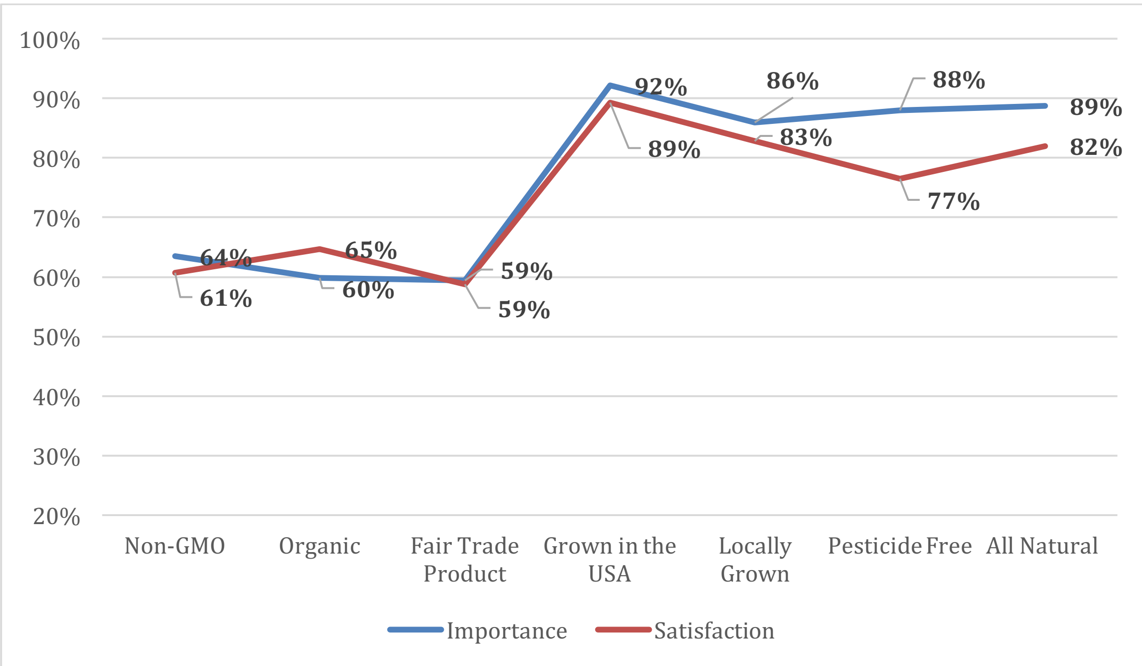
Labels: Importance and Satisfaction *(Purchasers)*

Respondents were asked to identify their level of importance and satisfaction of blueberry packaging labels.

Labels: Importance and Satisfaction *(Purchasers)*

Respondents indicated that Grown in the US (92%), All Natural (89%), and Pesticide free (88%), were slightly important or important labels (Figure 25). Respondents indicated that they were slightly satisfied or satisfied the presence of Grown in the US (89%), locally grown (83%), and All Natural (82%) labels when making purchasing decisions

Figure 25. Blueberry Preferences based on Labels



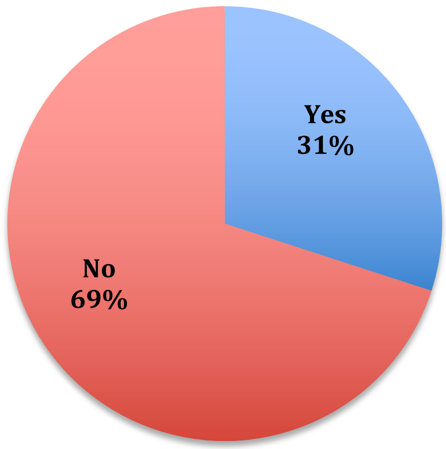
Blueberry Eating Habits by non-purchasers

Part of the survey was given to respondents who may not have purchased blueberries in the past year, but have eaten blueberries in the past year. Their results are as follows.

Consumed Blueberries this year *(Non- Purchasers, n = 531)*

The non-purchasers (n = 531) were asked if they had eaten fresh blueberries in the last year. Seventy percent indicated that they had not and 31% responded yes.

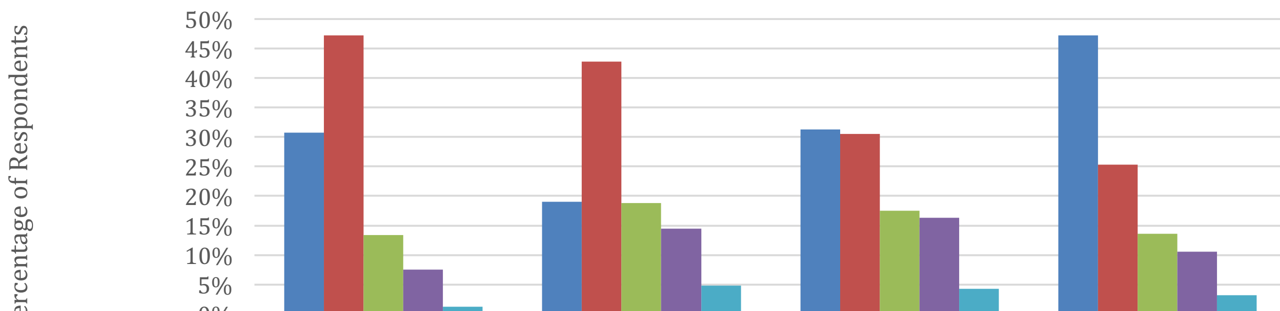
Figure 26. Have eaten fresh blueberries



How often Fresh blueberries are Consumed/Prepared *(Non-Purchasers who have eaten blueberries in the past year, n = 164)*

Respondents who reported they had eaten blueberries in the past year (*n* = 164), were asked how they prepared/consumed their blueberries during a typical month (Figure 27). The majority of respondents (62%) indicated they used blueberries for an ingredient in a dish once a month or less. Sixty percent indicated they consumed blueberries straight out of the container once a month or less.

Figure 27. How fresh blueberries are consumed/prepared

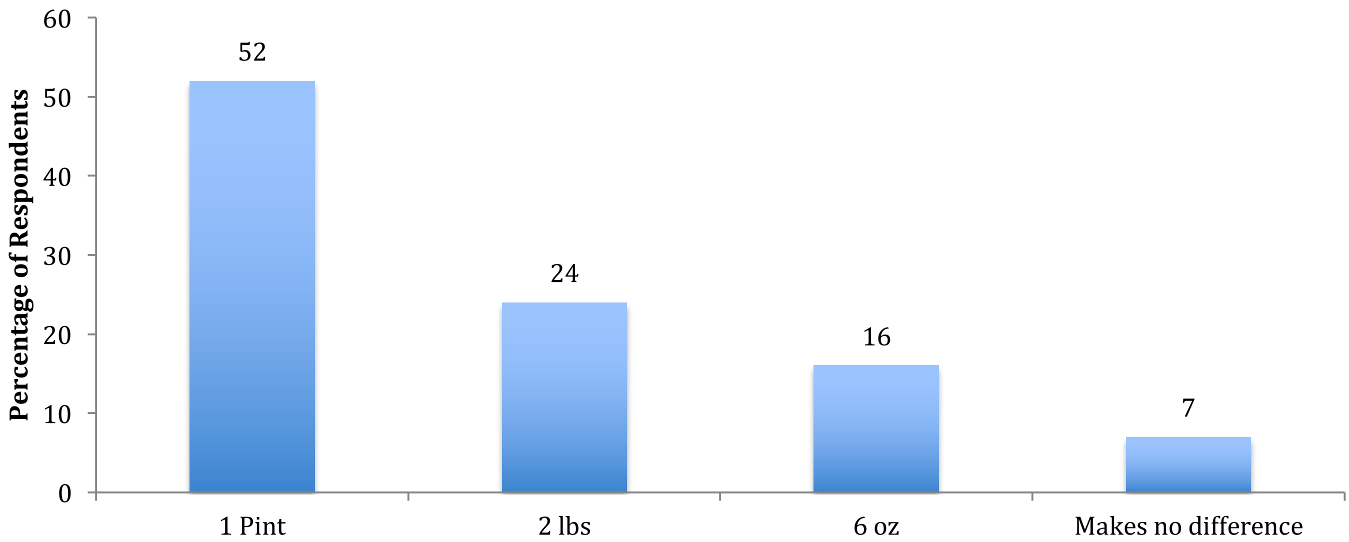


	Consume straight out of the container, without anything added	Ingridient for a dish (pancakes, jams)	Supplement/added to other food (cereal, yogurt)	In addition to drinks (smoothie)
Never	31%	19%	31%	47%
Less than once a month	47%	43%	31%	25%
Once a month	13%	19%	18%	14%
2-3 Times a Month	8%	15%	16%	11%
Once a Week or more Often	1%	5%	4%	3%

Packaging *(All Respondents, n = 2100)*

All respondents were asked to identify which packaging would be ideal for their household (Figure 28). They were shown images of a 6oz package, 1-pint package, and a 2lb package. These images can be found in Appendix B. Just more than half of respondents (52%) indicated that a 1-pint package was ideal for their household. Whereas, 7% said the package size makes no difference.

Figure 28. Packaging



Knowledge of Blueberry Health Benefits *(All Respondents, n = 2100)*

Respondents were asked a series of questions about their knowledge of blueberry health benefits. These questions asked respondents to determine whether the statements were true of false where 1 = *True* and 2 = *False* (Table 1). The majority of respondents exhibited a good understanding of the health benefits of blueberries. However, 56% of respondents were incorrect in their belief that the statement “Blueberries help with achy joints” was true and 48% of respondents were incorrect in their belief that the statement “Blueberries help strengthen eyesight” was untrue.

Table 1. Knowledge of Blueberry Health Benefits

	True	False
Blueberries help revert aging	65%	35%
Blueberries help ward off heart disease	83%	17%
Blueberries lower risks to cancer	82%	18%
Blueberries strengthen eyesight	52%	48%
Blueberries can improve memory	64%	36%
Blueberries decrease hearing loss*	34%	66%
Blueberries help with achy joints*	56%	44%

*Indicates false statement

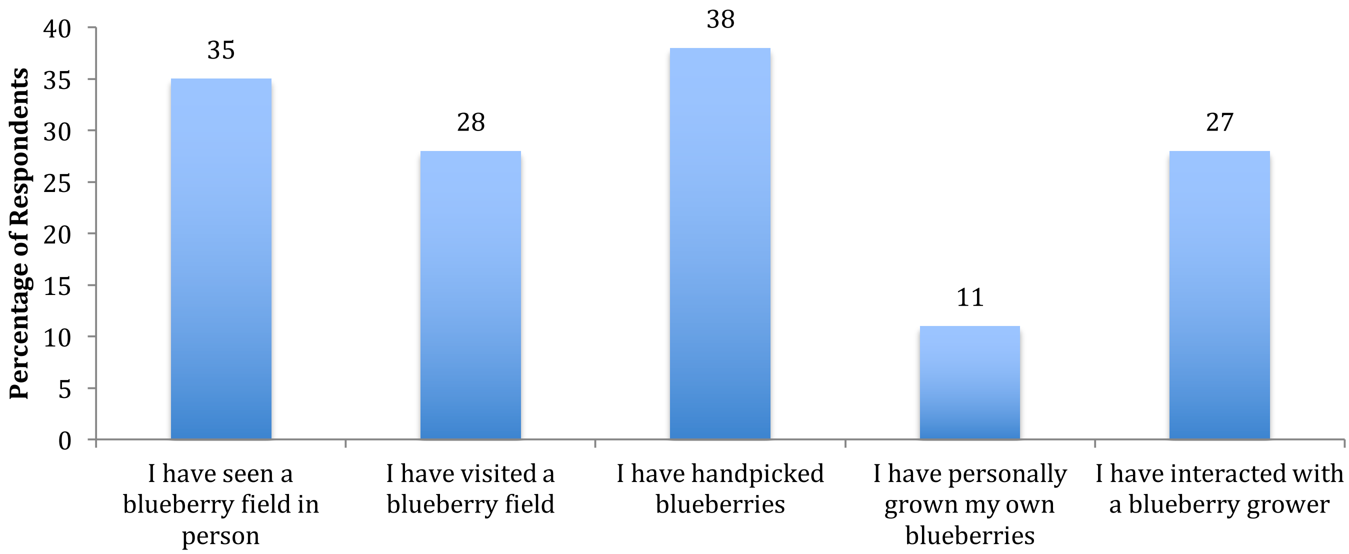
Florida Blueberries *(All Respondents, n = 2100)*

At the end of the survey, respondents were asked specific questions about Florida blueberries to understand the respondents’ awareness, preferences, and purchasing intent toward Florida-grown blueberries.

Personal Experience with Blueberries *(All Respondents, n = 2100)*

The respondents were asked a number of questions to better understand their past experience with blueberries (Figure 29). The majority (38%) of respondents reported they have handpicked blueberries. Followed by 35% reporting they have seen a blueberry field in person. Only 11% reported having personally grown their own blueberries.

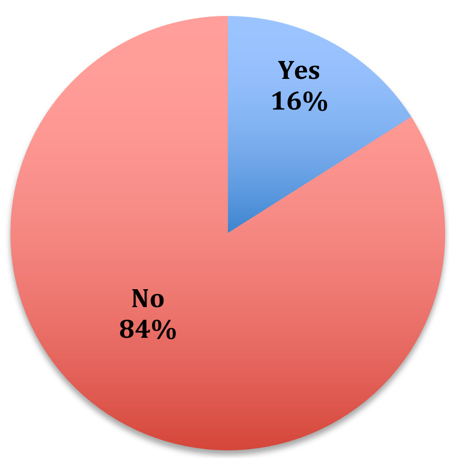
Figure 29. Personal Experience with blueberries



Florida's Blueberry Growing Season *(All Respondents)*

Respondents were asked if they knew when Florida blueberries were in season. The majority of respondents (84%) did not know. Only 16% indicated that they knew when Florida's blueberry season took place (Figure 30).

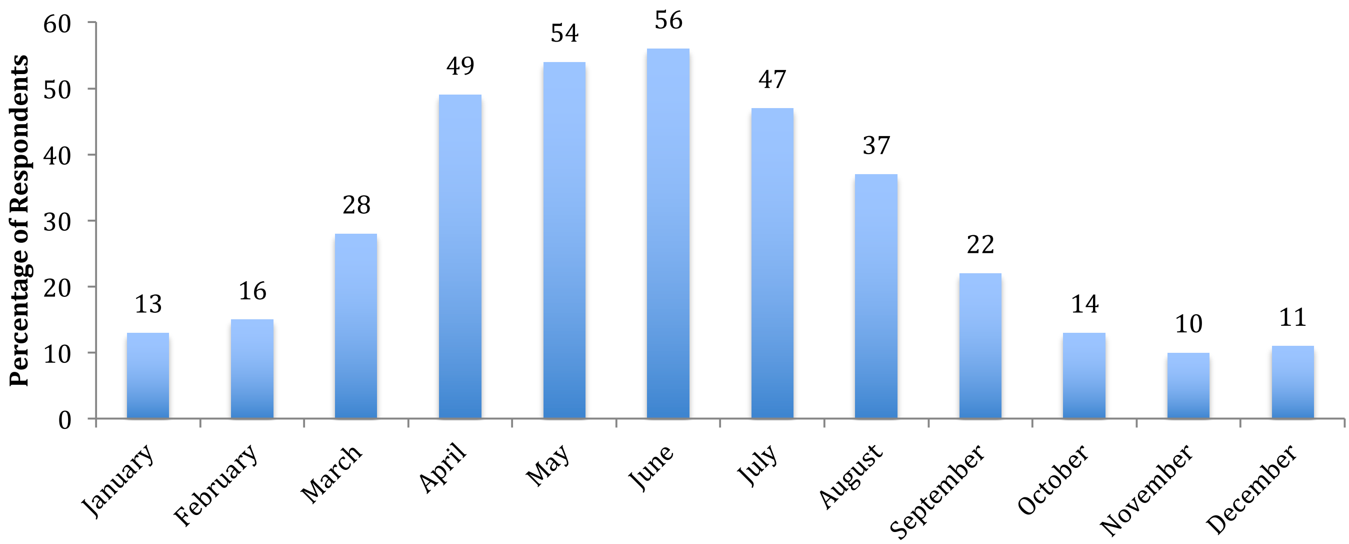
Figure 30. Florida Blueberry Season



Months Blueberries are in Season (Respondents who knew when Florida blueberry season was, *n* = 332)

Those respondents who knew when Florida's blueberry season was (*n* = 332), were asked to indicate which months they believed Florida blueberries were in season (Figure 31). Fifty-six percent reported June, 54% said May, and 49% said April. Responses can be seen in the figure below. Respondents could select more than one month.

Figure 31. Months Florida's Blueberries are in Season



Attitude Toward Florida Blueberries *(All Respondents, n = 2100)*

Respondents were asked about their attitudes toward blueberries grown in Florida. They were asked on five point semantic scale with paired adjectives such as 1) unsweet, sweet, 2) not nutritious, nutritious, 3) unsafe, safe, 4) not fresh, fresh, 5) dirty, clean, 6) inconvenient, convenient, 7) low quality, high quality, 8) from small farms, from large farms, and 9) not affordable, affordable. Respondents were asked to indicate which adjective in each pair most closely aligned with their attitudes toward Florida blueberries. An attitude index was created and based on these findings, respondents had mean score of 4.16 indicating a positive attitude toward Florida blueberries.

Table 2. Attitude Index

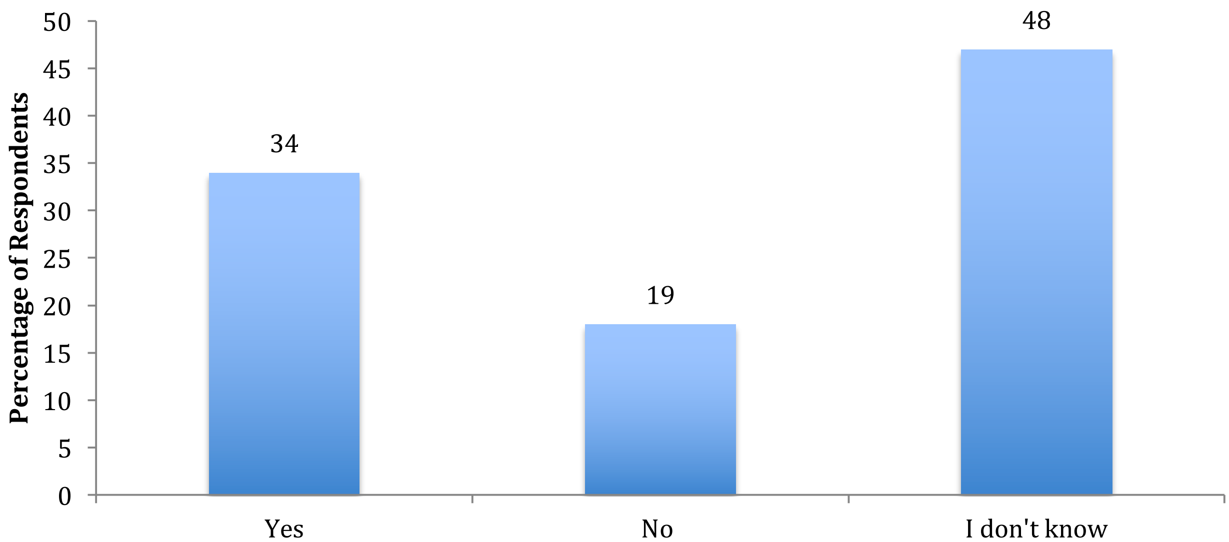
	N	Mean	Std. Deviation
Unsweet: Sweet	2100	4.29	.849
Not Nutritious: Nutritious	2100	4.49	.754
Unsafe: Safe	2100	4.46	.847
Not Fresh: Fresh	2100	4.37	.899
Dirty: Clean	2100	4.28	.891
Inconvenient: Convenient	2100	4.04	1.03
Low Quality: High Quality	2100	4.28	.866
From Small Farms: From Large Farms	2100	3.47	1.19
Not Affordable: Affordable	2100	3.78	1.04

** Note: Real Limits of the scale were 1.00 – 1.49 = strongly negative, 1.50 – 2.49 = negative, 2.50 – 3.49 = neither positive nor negative, 3.50 – 4.49 = positive, 4.50 – 5.00 = strongly positive

Seen Florida Blueberries in local area *(All Respondents, n = 2100)*

Respondents were asked if they had seen blueberries for sale in their local area (Figure 32). Forty-eight percent were not sure. Only, 34% said that they had seen Florida Blueberries for sale in their local area.

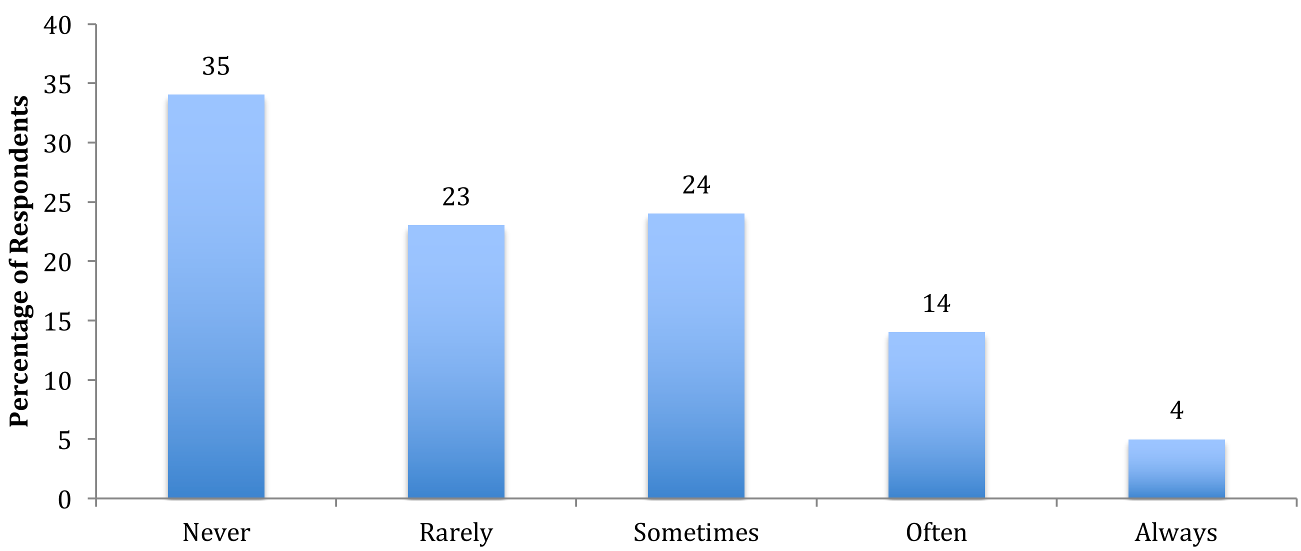
Figure 32. Frequency of Florida Blueberries seen in local area



Actively look for Florida Blueberries in local area ***(All Respondents, n = 2100)***

Respondents were asked how often they actively look for Florida grown blueberries (Figure 33). The majority of respondents (58%) reported that they never or rarely looked for Florida grown blueberries. However, 18% stated that they often or always looked for Florida grown blueberries.

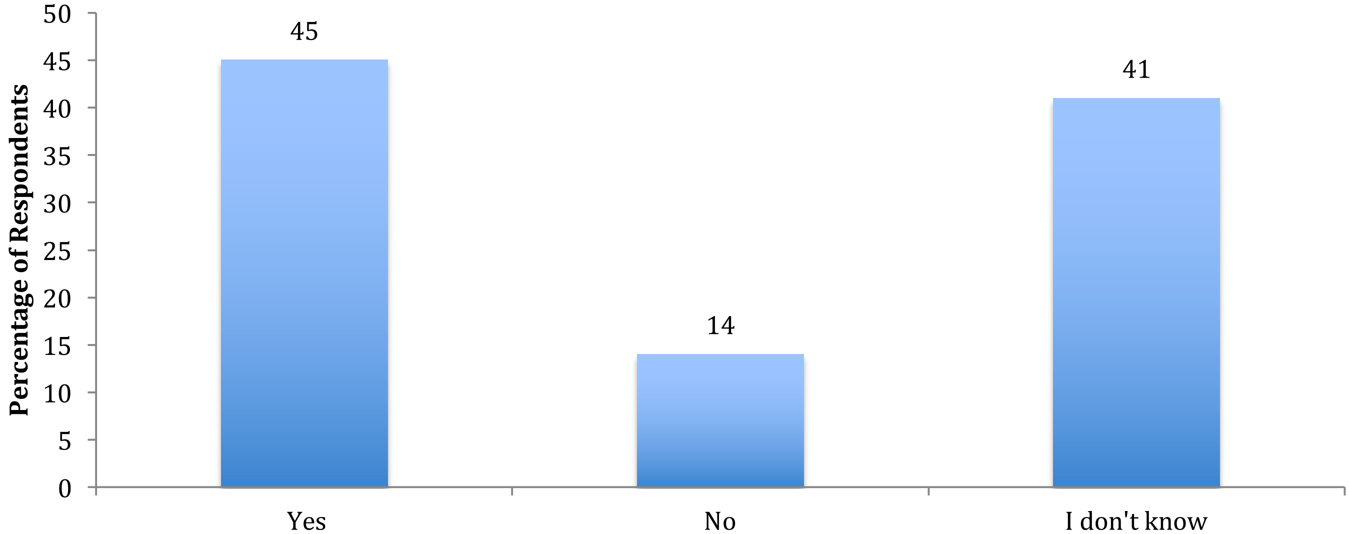
Figure 33. Frequency of actively looking for Florida blueberries in local areas.



Tasted Florida Blueberries ***(All Respondents, n = 2100)***

Respondents were asked if they had ever tasted Florida blueberries (Figure 34). Just under half (45%) of respondents responded yes, followed by 41% responding that they did not know if they had tasted Florida blueberries.

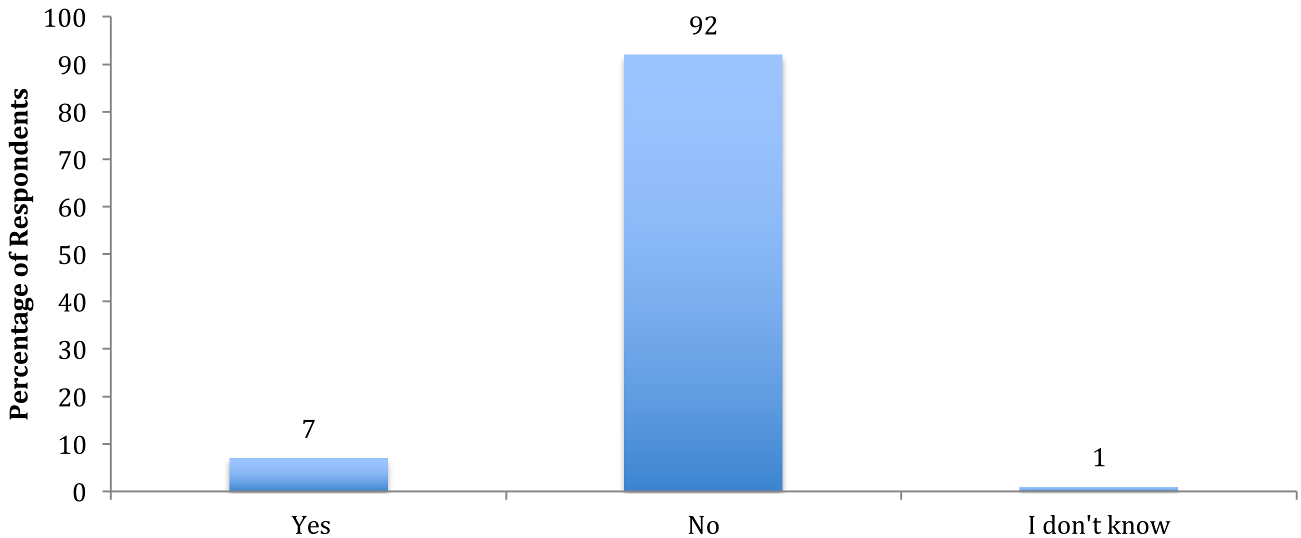
Figure 34. Frequency tasted Florida Blueberries



Visited a Florida Blueberry Farm ***(All Respondents, n = 2100)***

The respondents were also asked if they had ever visited a Florida Blueberry farm (Figure 35). Ninety-two percent responded with no. This was followed by 7% responding yes, they had visited a Florida blueberry farm

Figure 35. Visited a Florida blueberry Farm



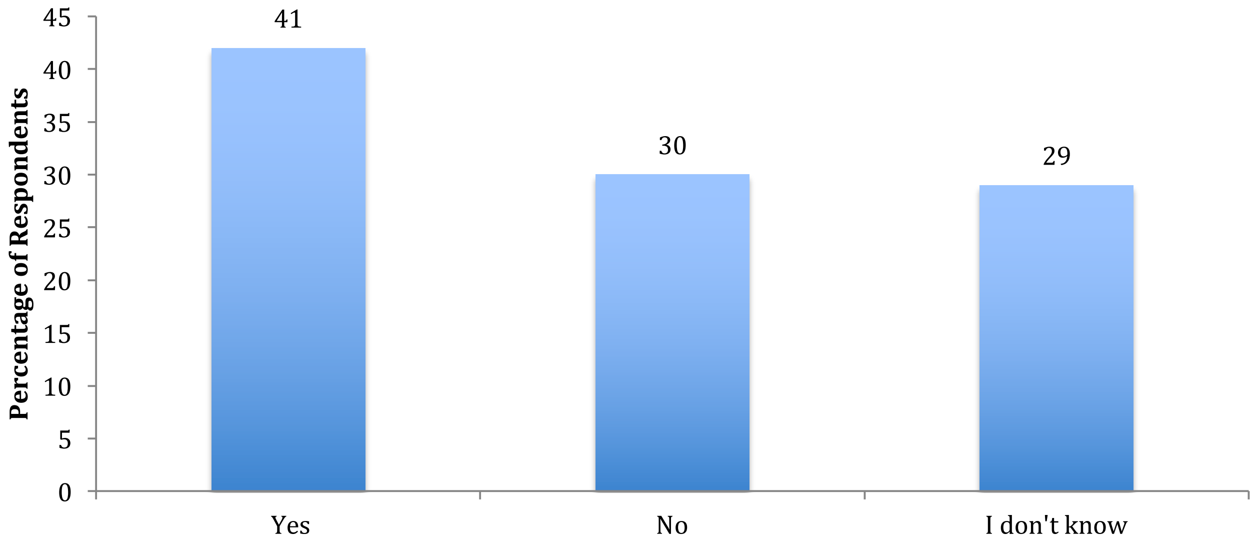
Fresh from Florida Label

The next part of the survey focused on the Fresh from Florida label. This section was given to all survey participants.

Seen Fresh from Florida Label ***(All Respondents, n = 2100)***

Respondents were asked if they had ever seen a package of blueberries with the Fresh from Florida label (Figure 36). Forty-one percent responded yes to seeing the label.

Figure 36. Seen Fresh from Florida Label



Attitude Toward Fresh from Florida Logo ***(All Respondents, n = 2100)***

Respondents were asked about their attitudes toward blueberries with the Fresh from Florida logo on the label (Table 3). They were asked on five-point semantic scale with paired adjectives such as 1) unsweet, sweet, 2) not nutritious, nutritious, 3) unsafe, safe, 4) not fresh, fresh, 5) dirty, clean, 6) inconvenient, convenient, 7) low quality, high quality, 8) from small farms, from large farms, and 9) not affordable, affordable. Respondents were asked to indicate which adjective in each pair most closely aligned with their attitudes toward blueberries with the Fresh from Florida logo on the label. An attitude index with an overall mean of 4.20 indicating that respondents had a positive attitude toward Florida blueberries with the Fresh from Florida logo on the label.

Table 3. Attitude toward blueberries with Fresh from Florida logo

	N	Mean	Std. Deviation
Unsweet: Sweet	2100	4.37	.809
Not Nutritious: Nutritious	2100	4.48	.760
Unsafe: Safe	2100	4.43	.840
Not Fresh: Fresh	2100	4.40	.863
Dirty: Clean	2100	4.34	.878
Inconvenient: Convenient	2100	4.12	.970
Low Quality: High Quality	2100	4.33	.846
From Small Farms: From Large Farms	2100	3.52	1.18
Not Affordable: Affordable	2100	3.80	1.03

** Note: Real Limits of the scale were 1.00 – 1.49 = strongly negative, 1.50 – 2.49 = negative, 2.50 – 3.49 = neither positive nor negative, 3.50 – 4.49 = positive, 4.50 – 5.00 = strongly positive

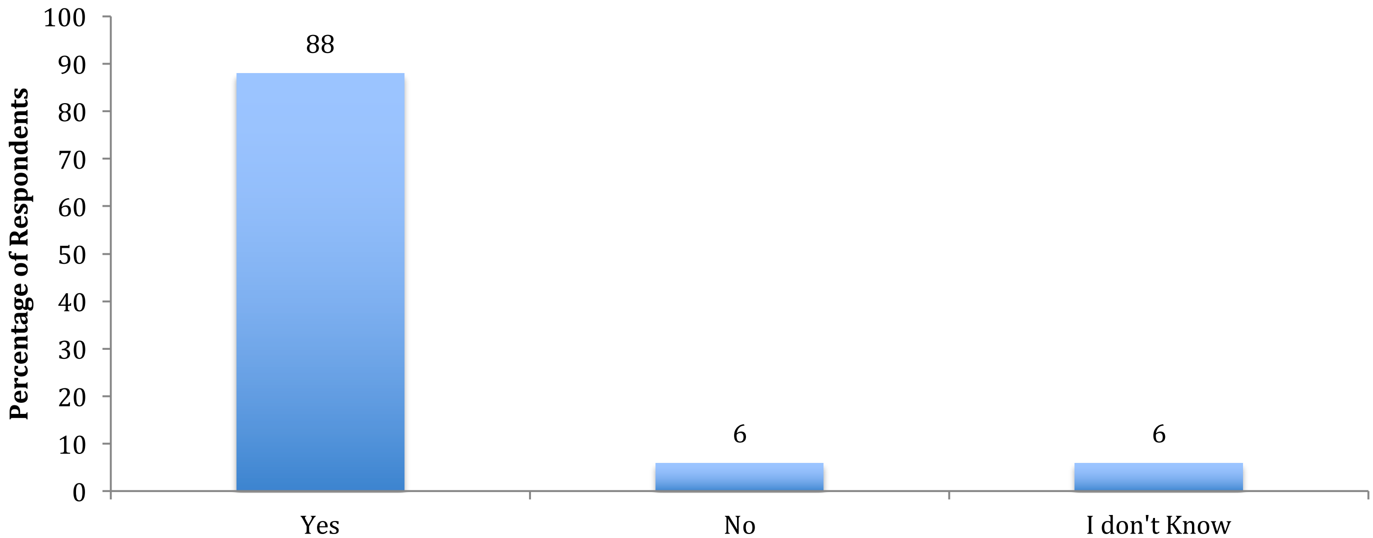
Purchaser of blueberries and seen Florida blueberries sold in local area (*n* = 650)

The following questions were given to survey respondents who answered "yes" to both having purchased blueberries in the past year and seen Florida blueberries sold locally (*n* = 650).

Purchased Florida Blueberries in local area ***(Purchased and has seen Florida blueberries sold in local area, n = 650)***

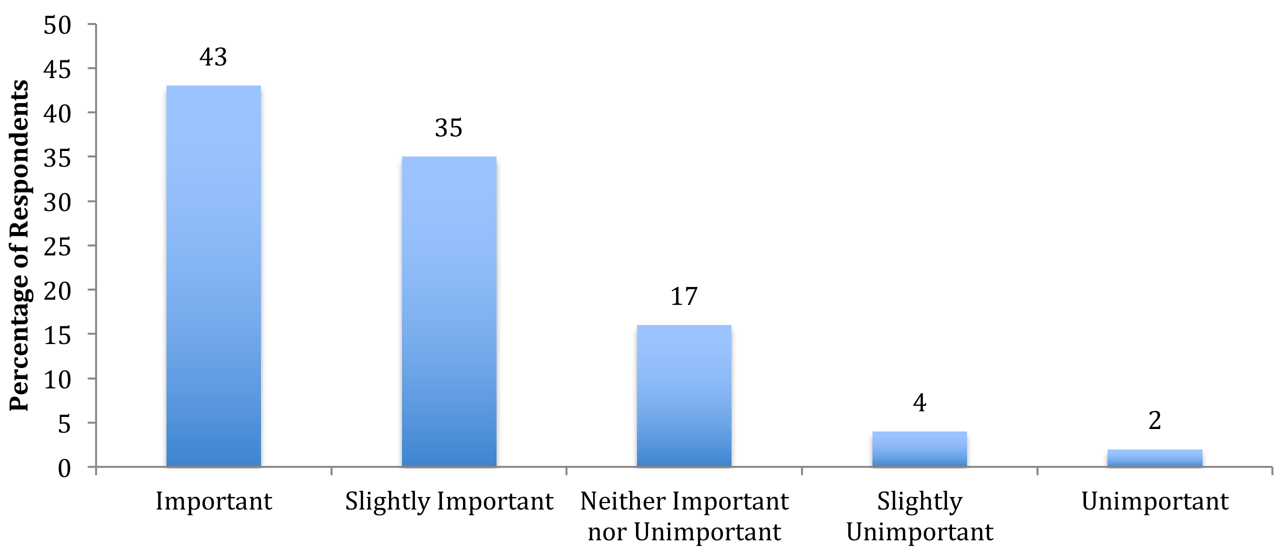
The respondents were also asked if they had purchased Florida Blueberries in their local area during the past year (Figure 37). The majority (88%) responded yes. The other 12% were equally split between no and I don't know.

Figure 37. Purchased Florida Blueberries in local area



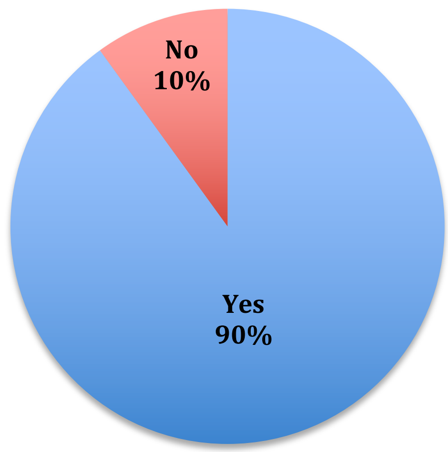
Importance of Fresh from Florida Label ***(Purchased and has seen Florida blueberries sold in local area, n = 650)***
Additionally, respondents were asked how important the presence of a Fresh from Florida logo on the package was to them (Figure 38). Overall, 78% indicated that the logo was important or slightly important. Only 6% said that it was unimportant or slightly unimportant.

Figure 38. Importance of Fresh from Florida Label



Prefer to Purchase Florida Blueberries ***(Purchased and has seen Florida blueberries sold in local area, n = 650)***
Respondents were asked about their preference of purchasing Florida blueberries (Figure 39). Ninety percent responded that they would prefer to purchase Florida blueberries if given the choice.

Figure 39. Preference of purchasing Florida blueberries



Reasons Florida Blueberries are Preferred ***(Purchased and has seen Florida blueberries sold in local area, n = 650)***
Respondents were asked why they would prefer to purchase Florida blueberries if given the choice (Figure 39). Freshness, taste, and quality were the top three reasons respondents preferred to purchase blueberries from Florida. Seventy-six percent of respondents selected both freshness and taste. Food miles traveled was less important to respondents with only 26% indicated it as a reason for purchasing Florida blueberries.

Figure 39. Reasons for Florida preferences

Transparency of Florida Blueberry Information ***(All Respondents, n = 2100)***
Respondents were asked about the information they had seen or accessed related to Florida blueberries (Table 4). These questions were created to determine how purchasers viewed the transparency of the Florida blueberry industry. The questions were phrased on a five-point semantic scale with values between one and five, with one being very opaque and five representing very transparent. The word choices were 1) incomplete, complete, 2) irrelevant, relevant, 3) unclear, clear, 4) inaccurate, accurate, 5) unreliable, reliable, 6) untimely, timely, 7) difficult to find, easy to find, 8) not detailed,

detailed, 9) unbalanced, balanced, 10) unbiased, biased, 11) incorrect, correct, and 12) not transparent, transparent. Respondents were asked to indicate which adjective in each pair most closely aligned with their perceptions of the transparency of Florida's blueberries.

The items were indexed with a mean of 3.67 indicating that respondents felt that the information available about Florida blueberries was transparent.

Table 4. Transparency of Florida Blueberry Information

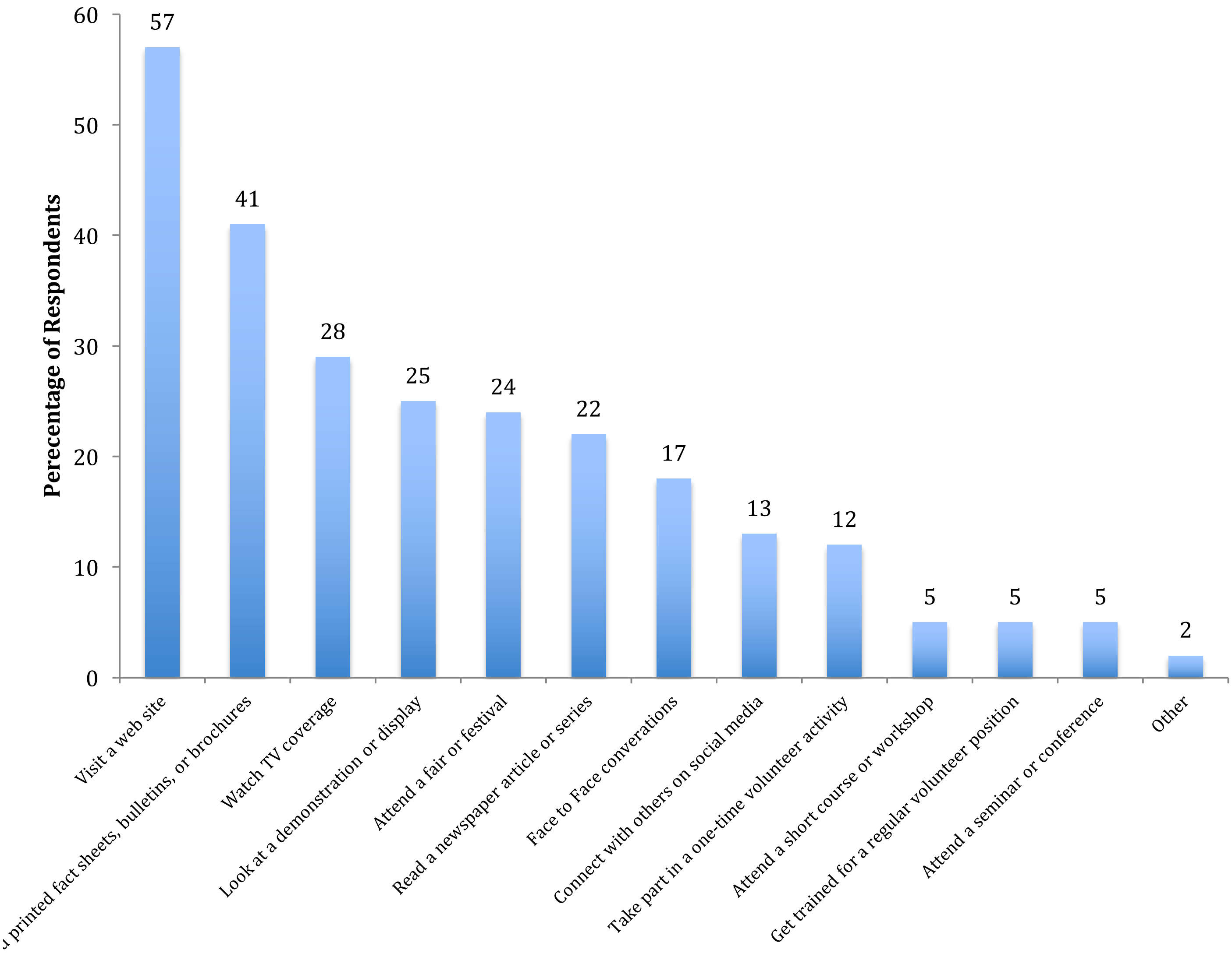
	N	Mean	Std. Deviation
Incomplete: Complete	2100	3.51	1.30
Irrelevant: Relevant	2100	3.86	1.09
Unclear: Clear	2100	3.84	1.09
Inaccurate: Accurate	2100	3.89	.925
Unreliable: Reliable	2100	3.93	.938
Untimely: Timely	2100	3.80	.955
Difficult to Find: Easy to find	2100	3.53	1.20
Not detailed: Detailed	2100	3.64	1.04
Unbalanced: Balanced	2100	3.76	.951
Unbiased: Biased	2100	2.90	1.17
Incorrect: Correct	2100	3.85	.922
Not transparent: Transparent	2100	3.49	1.02

** Note: Real Limits of the scale were 1.00 – 1.49 = Very Opaque, 1.50 – 2.49 = Opaque, 2.50 – 3.49 = neither Opaque or transparent, 3.50 – 4.49 = Transparent, 4.50 – 5.00 = Very Transparent

Learning Opportunities About Florida Blueberries *(All Respondents, n = 2100)*

At the end of the survey, all respondents were asked if they had the opportunity to learn more about Florida blueberries, what would action would they choose to take (Figure 40). The majority (57%) of respondents indicated they would prefer to visit a website, followed by read printed fact sheets (41%), and watch TV coverage (28%). Two percent indicated other opportunities like free samples or tastings in a store.

Figure 40. Learning Opportunities about Florida Blueberries



Works Cited

Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., Gile, K. J., & Tourangeau, R. (2013). Report of the AAPOR task force on non-probability sampling. American Association for Public Opinion Research. Retrieved at http://www.aapor.org/AM/Template.cfm?Section=Reports1&Template=/CM/ContentDisplay.cfm&ContentID=6055

Brown, C. (2003) *Consumers preferences for locally produced food: A study in Southeast Missouri.* American Journal of Alternative Agriculture. 18(04):213 -224.

Ruth, T. K., Rumble, J. N., & Anderson, S. (2015). *Eastern United States' consumer perceptions of Florida strawberries-Survey*. PIE2015/14-5a. Gainesville, FL: University of Florida/IFAS Center for Public Issues Education.

Appendix A.

Image 1: Chile Blueberries

Image 2: New Jersey Blueberries

Image 3: Florida Blueberries

Image 4: Fresh from Florida Blueberries

Appendix B.

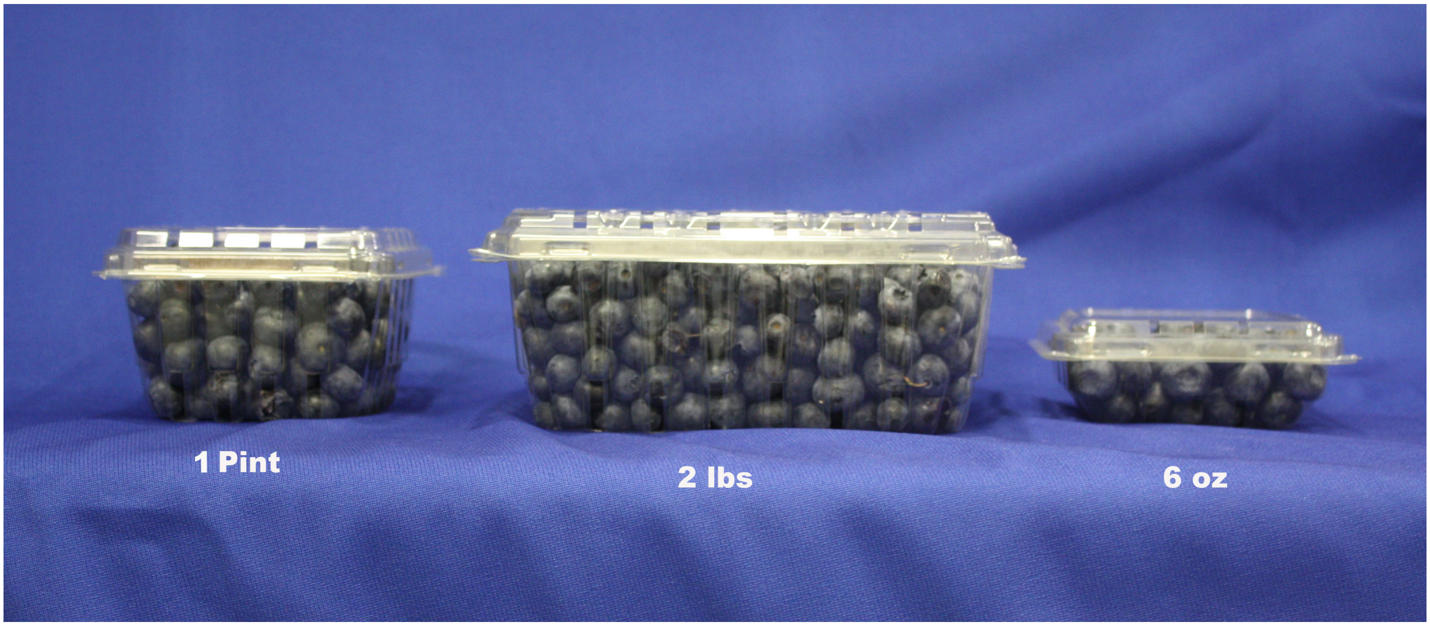


Image 5: Blueberry packaging size