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Narrowing the Gap: Preference and Awareness of Florida Strawberries

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Abstract

Consumers may prefer local food but do not always purchase it. A mixed methods research design was used to determine if there were differences between consumers' preferences for Florida strawberries and their awareness of the state's strawberry season. Using focus groups, researchers found that consumers preferred to purchase Florida strawberries but did not seek them out. In addition, consumers had limited knowledge of Florida's strawberry season. Five hundred Floridians were surveyed to understand their knowledge of and preferences for Florida berries. Findings indicate that food distributors should use advertisements that reinforce the positive attributes of Florida produce, along with information on the growing season, in order to increase awareness and promote sales of Florida strawberries.

Keywords: strawberries, local food, attitude-behavior gap, marketing

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Introduction

In recent years, there has been a substantial increase in consumer demand for locally-grown food (Becot, Conner, Nelson, Buckwater, and Erickson 2014; Conner, Colasanti, Ross, and Smalley 2010; Jefferson-Moore, Robbins, Johnson, and Bradford 2014). Some studies indicate this increase was driven by the perception that locally-grown food is healthier (The Hartman Group 2008). Other studies found that consumers purchased locally-grown food to support the economy and provide environmental benefits (Zepeda and Leviten-Reid 2004). As consumers continue to seek high quality, healthy food (Verbeke 2005), it is important to expand local markets (Zepeda and Li 2006). Global competition has also resulted in the promotion of U.S. products through state branding programs, such as Fresh from Florida (Zepeda and Li 2009). These programs increased in number from 23 in 1995 to 48 in 2010 (Onken and Bernard 2010), following a $200 million investment of state and federal funds in 2001 (Patterson 2006). In fact, research has suggested that producers should use state logos to reinforce positive perceptions of local produce (Hinson and Bruchaus 2008).

Although consumers may indicate a preference for “local” food, they do not universally have the same definition for this term (Conner et al. 2010). In fact, there is no standard definition for local food in the U.S. (Zepeda and Li 2006). Consumers often interpret the ambiguous local definition differently depending on the product (Rumble and Roper 2014). In most cases, however; consumers prefer food to be produced as close to their location as possible (Rumble and Roper 2014). Research has determined that consumers prefer local and national food to imported products, due to their belief that local and national foods are of higher quality and are fresher (Becot et al. 2014; Chambers, Lobb, Butler, Harvey, and Traill 2007; Jefferson-Moore et al. 2014). This perception of superiority of domestic products may stem from consumer ethnocentricity (Lantz and Loeb 1996; Lee and Ganesh 1999; Stoltman, Lim, and Morgan 1991). Sumner (1906, in Balabanis and Diamantopoulos 2004) initially described consumer ethnocentricity as people viewing their own group as the center of everything and judging all other groups in comparison to their own.

Generally, people hold favorable attitudes toward their own group and unfavorable attitudes toward others. Consumer ethnocentricity has been documented in a number of country-of origin studies where it negatively influenced consumers’ perceptions of imported food products (Chryssochoidis, Krystallis, and Perreas 2006), elicited consumer enthusiasm about purchasing domestic food (Chambers et al. 2007), and created higher perceived value of domestic products by consumers (Perrea, Mamalis, Melfou, Papanagiotou, and Krystallis 2015).

Unfortunately, studies have shown an attitude-behavior gap among consumers meaning, for example, they do not always purchase local produce even though they may prefer it (Chambers et al. 2007; Yue and Tong 2009; Zepeda and Levitan-Reid 2004). Chambers et al. (2007) found that, even though consumers had positive perceptions of local food, they rarely purchased local products on a regular basis. Consumers were often excited about local food production but did not put forth extra effort to find it in grocery stores (Chambers et al. 2007). Higher prices and lack of availability were identified as barriers to purchasing local food (Becot et al. 2014; Chambers et al. 2007). Additional literature has found that the origin location of low-involvement products, such as bread and coffee, is not very important to consumers (Ahmed et al. 2004; Lin and Chen 2006). However, Verbeke and Roosen (2009) suggested that adding additional quality marks to labels (i.e., county-of-origin), will help to increase the product's value to consumers.

In Florida, local agricultural sales (Florida grown/raised products) have contributed to the state's economy, at a value of $8.3 billion dollars in 2011 (Hodges and Stevens 2013). Florida is home to more than 47,000 farms and almost 300 commodities (Florida Department of Agriculture and Consumer Services [FDACS] 2013). It is the number one producer of oranges, and the number two producer of strawberries in the United States (FDACS 2013), yielding 200 million pounds a season (Mossler 2012). In fact, Florida is the primary strawberry producing state in the United States during winter months (Boriss, Brunke, Kreith, and Morgan 2012). In 2012, strawberry sales added more than $300 million to Florida's economy (FDACS 2013).

American's consumption of fresh strawberries has increased in recent years, reaching an all-time high of 7.9 pounds per person in 2013 (Perez and Plattner 2014). Along with the increase in consumption, there has also been an increase in strawberry prices. On average, fresh strawberries cost 12% more during 2014 than in 2013 (Perez and Plattner 2014). Strawberries tend to have a short shelf-life, which causes their prices to fluctuate more than other produce, depending on the season. Growers' prices for strawberries almost doubled between the months of December and February, which is the peak of Florida's strawberry season (Plattner, Perez, and Thornsbury 2014).

Even though consumption of fresh strawberries has increased, overall domestic production increased by only three percent in 2013. California, Florida, and Oregon were the top producers of strawberries in the U.S. in 2012, and California production increased by two percent, while Oregon's production decreased by two percent. In that same year, however; Florida's production increased by 11%. While, overall domestic strawberry production has only marginally increased, there has been an increase in strawberries imported into the United States from Canada and Mexico (Perez and Plattner 2014). Imported product has typically been sold during the off-season for domestic strawberries (Boriss et al. 2012), but the net trade in strawberries decreased to 20 million pounds in 2011 from 120 million pounds in 2008 (Wu, Guan, and Whidden 2012). Even though only 9% of the average annual share of total strawberry volume in the United States came from imported strawberries from 2010 to 2012 (Plattner et al. 2014), an estimated 36% of all imported strawberries arrived in the United States while Florida strawberries were still in season (Boriss et al. 2012). Additionally, strawberries imported from Mexico reached 350 million pounds in 2012, which is nearly double Florida's production. Despite the state's increased production of strawberries (Perez and Plattner 2014), Florida's market share of strawberries has dropped, likely due to the rise in imports (Ohlemeier 2013). Florida farmers must find way to market their strawberries against cheaper imports in a more competitive market (Shope 2013).

Consumers have indicated their desire to purchase local produce (Becot et al. 2014; Conner et al. 2010; Jefferson-Moore et al. 2014; Rumble and Roper 2014; Zepeda and Levitan- Reid 2004), but their behavior has not always reflected this attitude (Chambers et al. 2007; Zepeda and Levitan-Reid 2004; Yue and Tong 2009). For Florida strawberries, this attitude-behavior gap may be even wider because the product is only available for a few months during the year and is often sold at the same time as imported strawberries. Even when Florida consumers prefer

Florida strawberries, they will have a difficult time purchasing the product if they do not understand its seasonal availability, which is limited to the winter months.

Producers and distributors may be faced with the challenge of promoting Florida strawberries to consumers who are not entirely knowledgeable about the product. In order to effectively market Florida strawberries to the state's consumers, a baseline understanding of consumer preferences for and awareness of Florida strawberries will be necessary.

Purpose and Objectives

The purpose of this study was to explore Florida consumers' strawberry purchasing preferences along with their awareness of the Florida strawberry season, in order to develop marketing campaigns to promote Florida strawberries when they are in season. The research objectives were as follows: (1) explore consumers' purchasing preferences for Florida strawberries; and (2) describe consumers' awareness of Florida's strawberry season.

Methods

This study used mixed methods research, including both quantitative and qualitative research approaches "for the purposes of breadth and depth of understanding and corroboration" (Johnson, Onwuegbuzie, and Turner 2007, 123). The individual weaknesses associated with qualitative and quantitative methods can be offset by employing a mixed methods design (Creswell and Plano Clark 2011). A number of studies focusing on agricultural issues have recently used a mixed methods design (Epler, Drape, Broyles, and Rudd 2013; Walker 2010; Witt, Doerfert, Ulmer, Burris, and Lan 2013). Additionally, a literature review on consumer perceptions of local food found that 10% of the studies conducted between 2000 and 2013 in the United States and in Europe used a mixed methods research design (Feldman and Hamm 2015).

This study used an exploratory sequential design (Creswell and Plano Clark 2011)—a two-step process that prioritized the qualitative phase over the quantitative phase (Creswell and Plano Clark 2011). The initial data collected were qualitative, and a quantitative phase followed to help generalize the exploratory results (Creswell and Plano Clark 2011). Additionally, the quantitative instrument was developed to assess the overall prevalence of themes identified in the qualitative phase (Creswell and Plano Clark 2011). During analysis, the quantitative data were analyzed to see how they added to the qualitative results and made them more generalizable to Florida strawberry consumers (Creswell and Plano Clark 2011).

Qualitative Phase

Qualitative methods are useful to explore a research issue, and researchers require a complex understanding of the problem (Creswell 2013). Even though there is existing literature on consumers' preferences for local food (Becot et al. 2014; Conner et al. 2010; Jefferson-Moore et al. 2014; Rumble and Roper 2014; Zepeda and Levitan-Reid 2004), there is no literature related to the Florida strawberry market specifically. Because Florida strawberries are only in season for a short amount of time, and possess no tangible differences from competitors, greater insight into Florida consumers' purchasing preferences and awareness was necessary before further data could be collected.

The first phase of the mixed methods research design used focus groups to generate qualitative data. Focus groups allow participants to compare and contrast ideas and thoughts through guided group discussions and can be used to elicit honest answers when conducted appropriately (Morgan 1998). One of the limitations associated with focus groups is social desirability bias among participants. Participants will try to present what they perceive as socially desirable answers within the group (Maccoby and Maccoby 1954). This type of bias can lead to an overrepresentation of certain responses in a focus group (Zerbe and Paulhus 1987). The purpose of the focus groups was to assess consumers' preference for purchasing Florida strawberries along with their awareness of the product. Focus group participants were recruited by an external marketing firm, which contacted participants through random digit dialing, and offered a monetary incentive to encourage participation. Fifty participants took part in focus groups in a north Florida city. Each group had an average of eight participants; the recommended size of focus groups is six to twelve participants (Krueger 1998). Each participant was assigned a pseudonym for confidentiality throughout the analysis.

Table 1 shows participant demographics. The majority of participants were White (66%), female (60%); earned an income between $30,001 and $60,000 (56%); and were over the age of 50 (68%). Member checking was used as a validation measure by having participants confirm the summary of the discussion (Creswell 2007). Emergent themes from the focus groups were identified using a constant comparative method of analysis (Glaser 1965) in MAXQDA software. These themes were used to complete study objectives one and two, and guide question development for the quantitative portion of the study.

Table 1. Demographic characteristics of focus group participants

Characteristic	*n*
Sex	
Female	20
Male	30
Race/Ethnicity*	
Hispanic	3
Black or African American	16
White	33
Income*	
Less than $30,000	9
$30,001-$45,000	18
$45,001-$60,000	10
$60,001-$80,000	7
$80,001-$100,000	1
$100,001-$125,000	3
Age	
18-29	3
30-39	8
40-49	5
50-59	17
60+	17

***Note.** Indicates one person declined to answer this question.

Quantitative Phase

Themes identified in the qualitative phase were used to guide the questions developed for the quantitative instrument (Creswell and Plano Clark 2011; Morgan 1998). A survey, based on results from the focus groups, was developed for administration to Florida consumers 18 years and older who purchased strawberries (Creswell and Plano Clark 2011). Questions, generated from the focus groups, asked respondents to describe the importance of strawberry characteristics for their purchasing intentions, using a five-point scale with the ordinal labels of not at all important, slightly important, fairly important, highly important, and extremely important. Respondents also answered questions about their preference for purchasing Florida-grown products with the scaling: never, rarely, sometimes, most of the time, and always. Another question asked respondents if they preferred Florida versus California strawberries, given the choice. The respondents who selected Florida strawberries were then asked to select the characteristics of the strawberries that influenced their decision, using a multiple response question. Finally, respondents were asked if they were aware of Florida's strawberry season. Those who said yes then selected the months that corresponded to the start and end of Florida's strawberry season.

The survey was reviewed by a panel of experts for face and content validity. An online survey company, Qualtrics, distributed the survey and used non-probability sampling to recruit respondents. This sampling is often used by public opinion researchers (Baker et al. 2013) and has been shown to be comparable or even better than probability samples (Twyman 2008; Vavreck and Rivers 2008). Quota sampling was used to reduce bias (Baker et al. 2013), and respondents were matched to the 2010 U.S. Census results for gender, race/ethnicity, and age in Florida. A screening question at the beginning of the survey asked if respondents had purchased strawberries in the past year. As fewer men, racial minorities, and younger consumers qualified to participate in the survey, the quota had to be adjusted to increase the number of middle-age, white women. The instrument was distributed to 1,812 respondents in Florida, and 500 met the set quota. Respondent demographics are in Table 2. The majority of respondents were female (62%), White (85%), over the age of 40 (63%), and had an annual income below $60,000 (68%).

Quantitative data were analyzed using SPSS 21.0.

Table 2. Demographic characteristics of survey respondents

Characteristic	*n*	%
Sex		
Female	310	62
Male	190	38
Race/Ethnicity*		
Hispanic	59	10
American Indian or Alaskan	19	2
Black or African American	45	9
Asian or Pacific Islander	25	5
White	425	85
Other	10	2
Income		
Less than $30,000	155	31
$30,000-$39,999	75	15
$40,000-$49,999	60	12
$50,000-$59,999	50	10
$60,000-$69,999	40	8
$70,000-$79,999	40	8
$80,000-$89,999	15	3
$90,000-$99,999	25	5
more than $100,000	40	8
Age		
18-29	85	17
30-39	100	20
40-49	130	26
50-59	95	19
60+	90	18

***Note.** Indicates respondents could answer more than one option.

Results

Objective 1: *Explore Consumers' Purchasing Preferences for Florida Strawberries.*

Qualitative Phase

Consumers' purchasing preferences for Florida strawberries were initially explored through focus group questions. The following themes were identified as affecting consumers' strawberry preferences: location of origin, price, and freshness.

Location of origin. When participants were asked if they cared about what country their produce came from, many replied that they did not care or did not pay attention. When asked, "So, how do you feel about strawberries that are grown in other countries? Does that affect your [purchasing] decisions at all?" Amber replied, "It doesn't affect my decisions." Similarly, Susan said, "I don't care where they are grown. It doesn't matter." Participants also reported that they did not look on labels to see where the strawberries were grown. Rose explained, "Usually I just buy whatever. OK, there are strawberries. I'll get these. I don't even look at what country they're from, to tell you the truth. I just buy them, if that's what I'm looking for." Some participants, like Jon, did not think the strawberry packages had the location of origin on them, "Usually if you buy [strawberries] out of the store, they don't really tell you where they actually come from, but I don't think that makes a big deal."

Participants were also asked specifically if they would purchase strawberries grown in Florida. Ken stated, "I would never turn Florida strawberries down." This sentiment was reflected in all the focus groups, and participants agreed that they would prefer to purchase Florida-grown strawberries over imported products, primarily for their freshness. Janet said, "But during the winter especially, Florida's fruits and vegetables are the freshest because we don't have hard winters." Supporting the local economy and local farmers was also identified as a reason for buying Florida strawberries, "Hopefully, you'd think that would help the economy here in the state," Leonard said. Angela had a similar thought, "I want to be loyal to Florida growers, and be a part of it."

Price. Price of the strawberries came up often during the focus groups. Participants said they preferred to purchase Florida strawberries during the growing season because of the lower prices. Karen claimed, "If there are plenty of them [strawberries], the prices are lower and, because they're in season, they're moving them quicker so they don't go bad or get soft." Similarly, Elliot said, "You want to buy what's in season for the freshness and the price. Because the less it has to travel, the less it's going to cost." Not only did the participants prefer to purchase strawberries during Florida's growing season due to lower prices, they also assumed the lower-cost strawberries were from Florida. Ken explained, "I'm thinking…when the price comes down and [strawberries are] in season, I assume that I'm getting Florida because they're not shipping them from California or somewhere else and paying freight on them." Some people indicated they were willing to pay more for Florida-grown strawberries than for imported strawberries. Seth said, "Well, if I had a choice between a strawberry that was grown in Honduras that was a dollar cheaper, versus a strawberry that was grown in Florida that was a little more expensive, I would prefer to pay the extra money for the one that was grown in the States."

Price was also identified as a determining factor for many of the participants when selecting strawberries. A number of participants said they often chose the cheaper product if it was the same quality as other imported products. Leslie said, "I mean, I'm a budget shopper so if it's from overseas, but it's at the better price, I am going to get it." Christi indicated similar purchasing intentions, "I mean, if I saw one strawberry package from Mexico and one from Florida, and the Mexico package is cheaper and they looked just as good as the Florida, I would go with the cheaper one."

Freshness. Freshness was a major theme that emerged from the focus groups. Participants felt that Florida strawberries would be fresher because they would travel fewer miles and be in season. Rachelle best described this by saying, "Well, you don't have that time between when [the strawberries] leave the field and the time they get to your refrigerator or your kitchen; they're fresher." Similarly, Katie said, "And it [Florida strawberries] is local and it probably is fresher because it is right here in town; instead of traveling from somewhere and they have to put in a cold case and maybe it is not as fresh. We know it is coming right from our place. So, it may be fresher than…coming from another city."

Participants also said that they would not buy strawberries if they were not in season. According to Ben, "When it's [strawberries] out of season, I prefer to stay away from it. I want to buy my fruits in season." Overall, participants preferred Florida-grown strawberries over imported products for the freshness. Seth said, "The ones that I've bought locally are much fresher. They taste better. The ones that I've bought from overseas, I think they're usually picked over- [and] under-ripe."

Quantitative Phase

During the quantitative portion of the study, respondents were asked to indicate their preferences for strawberry purchases. The previously identified themes of freshness, seasonality, and price were included in a question about the importance of strawberry characteristics, along with other strawberry attributes. Table 3 shows that 73% of respondents identified freshness as extremely important when making strawberry purchasing decisions and confirmed the focus group findings.

Table 3. Importance of strawberry purchasing preferences

	Not at all Important		**Slightly Important**		**Fairly Important**		**Highly Important**		**Extremely Important**	
Characteristic	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
Freshness	1	0	1	0	18	4	115	23	365	73
Taste	2	0	0	0	13	3	136	27	349	70
Nutrition	10	2	31	6	89	18	181	36	189	38
In Season	15	3	31	6	97	19	189	38	168	34
Price	13	3	29	6	154	31	170	34	134	27
Support Local Farmers	32	6	56	11	134	27	152	30	126	25
Convenience	42	8	77	16	185	37	116	23	80	16

The majority of respondents (72%) considered whether the strawberries were in season as highly or extremely important. About one-third of the respondents (34%) said price was an extremely important factor for their strawberry purchasing decision. In fact, f*reshness* and *in season* were the two highest rated characteristics for importance, followed by nutrition (38% of respondents said this was extremely important). Price was rated as the fourth most important attribute, and the rest of the characteristics had less than one-third of the respondents reporting they were extremely important.

Table 4 shows how respondents used the growing location on strawberry packages to make their purchasing decisions. The majority (60%) reported that sometimes or most of the time they looked on the labels to see where strawberries were grown. Similarly, 53% of respondents indicated that sometimes or most of the time they made their purchasing decisions based on where the strawberries were grown.

Table 4. Strawberry Purchases Based on Growing Location

	Never		**Rarely**		**Sometimes**		**Mostly**		**Always**	
Characteristic	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
I look on the label to see where strawberries are grown	35	7	58	12	135	27	163	33	109	22
I make purchases based on where the label says the strawberries are grown	56	11	106	21	152	30	117	23	69	14

The survey asked respondents if they would rather purchase strawberries grown in Florida or in California. The overwhelming majority selected Florida-grown strawberries (83%). Only 14% of the respondents reported not having a preference. The people who selected Florida were asked why they preferred those strawberries. Table 5 shows that the majority selected freshness (91%), supporting Florida's economy (83%), and taste (79%) as the reasons for preferring Florida-grown strawberries.

Table 5. Reasons for choosing Florida

Characteristic	***n***	**%**
Freshness	378	91
Support Florida's Economy	344	83
Taste	328	79
Quality	286	69
Food Miles Traveled	232	56
Safety	203	49
Nutritional Value	170	41
Other	8	2

Objective 2: *Describe Consumers' Awareness of Florida's Strawberry Season.*

Qualitative Phase

During the focus groups, participants demonstrated confusion regarding Florida's strawberry season, and many indicated they rarely saw advertisements for Florida-grown strawberries. Out of the six focus groups, one group was completely unaware that Florida even produced strawberries. In a few of the focus groups, one person may have been aware of Florida's strawberry season, but the majority said they were not. There were a variety of responses regarding timing and duration of Florida's strawberry season. Even though Florida strawberries are in season during the winter, Christi said, "I look forward to every April and May for strawberry season." Other people, like Wayne, explained they preferred to purchase the strawberries during the summer when he believed they were in season, "Usually in the summer I'll buy them once a week or every other week, because like I said I like to snack on them when I'm watching TV or whatever. But in the off season, I'll get them maybe once a month."

During the focus groups, participants were asked to give their opinions on the design of several billboards promoting Florida strawberries. One of these billboards said the strawberries were "In season now, all winter long!" Even though the information was accurate, some participants rejected the fact that Florida strawberries were in season during winter months. Rudy said, "This is constraining the marketing season for these Florida strawberries. I don't know if you mean to do that when you say, "In Season Now" or "All Winter Long" you are suggesting that they are only available for a certain amount of time."

Rudy's quote reflected a general feeling among the participants that Florida strawberries were available all of the time. Angela suggested altering the billboard, "Or you could say, 'Florida Strawberries; Fresh All Year Long.'" The participants also had trouble believing winter strawberries would taste good. Rudy continued to explain, "So, if they're trying to sell me strawberries in winter, they're going to have to give me more information to convince me that winter strawberries are as flavorful as summer strawberries."

The participants were also asked if they had ever seen any advertising for Florida strawberries. The majority said no. Some said that grocery stores may have a sign up next to the strawberries with *Fresh from Florida* on it. Many participants also indicated that they rarely saw where the strawberries were grown on the labels or were not looking for that information. Ashley said, "Because most strawberries sometimes don't have a label and, if there is, it is very small and you are just looking for the price and how fresh it is."

Quantitative Phase

The survey asked respondents if they knew when strawberries were in season in Florida. Sixty percent (n = 300) reported that they were familiar with the Florida strawberry season. Those respondents (60%) were then asked to select the start and end month of the season. Only 13% (n = 39) correctly selected December as the start month, and 28% (n = 84) correctly selected April as the end month. One-third of all respondents thought the season started in February (37%, n = 111). Even though the greatest number of respondents correctly selected April, 29% (n = 87) believed the season lasted through May and June.

Discussion

The qualitative portion of this study found that participants had a general preference toward Florida strawberries, but their reported purchasing behaviors did not always align with their attitudes. Similarly, participants were not aware of Florida's growing season, likely making it even more difficult for them to purchase Florida strawberries. The survey was developed to see if these results were generalizable to Florida strawberry consumers and, indeed, the survey data are relatively consistent with that derived from the focus groups.

Results from the focus groups and the survey data show that consumers have a clear preference toward Florida-grown strawberries. During the focus groups, participants indicated they preferred local strawberries because of their freshness and higher quality when compared to imported strawberries, however; these preferences could be the result of social desirability bias. The survey yielded similar results, allowing the data to be more generalizable to Florida residents who purchased strawberries. These findings were consistent with previous research concluding that consumers preferred to purchase local food (Conner et al. 2010; Rumble and Roper 2014; Zepeda and Levitan-Reid 2004). Consumer ethnocentricity likely influenced the consumers' preferences for food grown in their own state (Chambers et al. 2007; Perrea et al. 2015).

Price was also mentioned in relation to purchasing preferences. Many participants in the focus groups indicated that local food was cheaper because it traveled fewer miles and their purchases were likely supporting local farmers. However, participants indicated that, if the local strawberries were more expensive than the imported strawberries, they would purchase the imported product. Price being a barrier to purchasing local food is consistent with previous research on this topic (Chambers et al. 2007). The survey also showed that Florida consumers considered price to be important in their purchasing decisions, as well as the number of food miles traveled.

Even though the consumers in this study displayed a preference toward Florida strawberries, the focus groups showed that they did not always think about where their food was coming from or often simply did not care. This finding contradicts other statements from focus group participants indicating that they would prefer Florida-grown strawberries. This contradiction may be because the origin of the strawberries is not a top consumer priority when they are selecting strawberries in the store. Another possible explanation for participants' lack of concern about purchasing imported strawberries is that this product is mostly grown in the United States. Had the participants been asked about the growing location of a product that is typically imported from outside the U.S., like bananas, their concern for the growing location may have been greater. The focus group results support previous research, and demonstrate an attitude-behavior gap among consumers (Chambers et al. 2007; Yue and Tong 2009; Zepeda and Levitan-Reid 2004).

The survey did have some conflicting results. For example, the majority of respondents reported looking at strawberry labels to see where the fruit was grown and said that they often made purchasing decisions based on the growing location. A possible explanation for this contradiction was that the focus groups elicited more honest responses from the participants (Morgan 1998). Additionally, the focus group participants and survey respondents did not share the same demographic characteristics. Participants in the focus groups were older and earned lower incomes compared to the survey respondents. These differences may account for the focus group participants' lesser degree of concern about the growing location of their food.

This study found that consumers have varying levels of awareness about Florida strawberries. Participants in one of the focus groups even indicated that they were not aware that strawberries were grown in Florida. Furthermore, a few participants may have known when the Florida strawberry season occurs, but the majority reported they did not. Even when presented with advertisements for the Florida strawberry season, some participants immediately rejected the information. This rejection of information could be the result of cognitive dissonance, which is discomfort felt when an individual is presented with information counter to his/her beliefs (Festinger 1957; Gass and Seiter 2003).

Many participants made suggestions to change the billboards to state that strawberries were available year round, likely as an attempt to reduce cognitive discomfort. A number of participants also reported that they mostly purchased strawberries during April, May, or during the summer months. Consumers may envision strawberries as a summer food, making it difficult for them to believe that the fruit is freshest during Florida's winter months
Additionally, strawberry prices peak during the winter months (Plattner et al. 2014), which could cause consumers to assume that, due to higher prices, strawberries are not in season. The cheaper

prices in the summer may contribute to the increase in consumption during those months as well. This reported preference for purchasing strawberries in the summer conflicts with consumers' preference to purchase Florida strawberries for their freshness. Unfortunately, consumers likely do not realize they are purchasing Florida strawberries during the off-season months, since many stated that they did not look at source of origin information.

The survey found that the majority of Florida consumers believed they knew about Florida's strawberry season, but only a small portion could correctly identify the start and end months of the season. These results were consistent with the findings of the focus groups and show that consumers are not aware of Florida's strawberry growing season.

Recommendations

There is an apparent gap between Florida consumers' preference for Florida strawberries and their awareness about the availability of those strawberries. Findings from this research illustrate that the growing location of strawberries is important to consumers, but they are not always seeking out this information while in the grocery store. This finding is important for food distributors so they can improve marketing of locally grown products. In order to compel consumers to think more about the growing location of their produce, producers and distributors should make the growing location on their label easier to identify by using a state brand, such as *Fresh from Florida*. This brand identification will help consumers to identify the product as locally grown and allow them to easily purchase their preferred products. The additional label information will also add greater consumer value to the product (Verbeke and Roosen 2005).

A major issue identified by this study was that consumers did not know when Florida-grown strawberries were in season, but they stated that they preferred to purchase Florida strawberries. Distributors and producers should examine target audience knowledge when developing communication campaigns for Florida strawberries or other commodities. Participants experienced cognitive dissonance when presented with the correct growing months for strawberries in Florida. Advertisements should promote desirable qualities of the product like freshness and quality, along with the months of the growing season, to reduce dissonance and increase the likelihood that consumer purchases will align with their stated preferences (Oshikawa 1969).

Awareness of the Florida strawberry growing season may also be increased through interactive promotional and educational opportunities. Cooking demonstrations using strawberries during the winter at local grocery stores, events, and community centers could help teach consumers when Florida strawberries are in season, while allowing them to experience the fresh product at the same time. Children and their parents could also be educated about the Florida strawberry season by incorporating product seasonality into school curricula, school garden programs, and school cafeteria promotions. These types of programs will raise general awareness of Florida products and serve to strengthen the *Fresh from Florida* brand. Also, repetitive use of the state brand will help to reinforce consumer ethnocentricity and create a greater perceived value of Florida strawberries (Perrea et al. 2015).

Future research should explore the types of consumer information that would help consumers reduce cognitive discomfort and increase ethnocentricity when presented with information on Florida's strawberry season. Messages should focus on the positive qualities of Florida strawberries, as well as their growing season. This will help promote Florida strawberries during winter months when product imports are present in the market. Another research opportunity would include examining consumers' knowledge and preferences for strawberries at the point of purchase. Observing consumer behavior in the grocery store could allow researchers to determine if people actually use the produce labels and/or look for growing location information. This study could be replicated in other states whose major agricultural commodities are subject to competition from imports. Additionally, this study could be expanded to a larger region of the U.S. to determine whether consumers in other areas of the country have similar preferences for and knowledge of Florida strawberries. Gaining more knowledge on consumers' attitudes and behavior toward buying Florida strawberries will allow distributors and producers to better market their products locally and regionally.

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References

Ahmed, Z.U., J. P. Johnson, X.Yang, C. K. Fatt, H. S. Teng, and L. C. Boon. 2004. "Does Country of Origin Matter for Low-Involvement Products?" *International Marketing Review* 21(1): 102 – 120.

Baker, R., J. M. Brick, N. A. Bates, M. Battaglia, M. P. Couper, J. A. Dever, and R. Tourangeau. 2013. "Report of the AAPOR Task Force on Non-Probability Sampling." American Association for Public Opinion Research.

Balabanis, G., and A. Diamantopoulos. 2004. "Domestic Country Bias, Country-of-Origin Effects, and Consumer Ethnocentrism: a Multidimensional Unfolding Approach." *Journal of the Academy of Marketing Science* 32(1): 80–95.

Becot, F., D. Conner, A. Nelson, E. Buckwalter, and D. Erickson. 2014. "Institutional Demand for Locally-Grown Food in Vermont: Marketing Implication for Producers and Distributors." *Journal of Food Distribution Research* 45 (2): 99–117.

Boriss, H., H. Brunke, M. Kreith, and K. Morgan. 2012. "Commodity Strawberry Profile." http://www.agmrc.org/commodities-products/fruits/strawberries/.

Chambers, S., A. Lobb, L. Butler, K. Harvey, and W. B. Traill. 2007. "Local, National and Imported Foods: A Qualitative Study." *Appetite* 49(1): 208–213.

Chryssochoidis, G., A. Krystallis, and P. Perreas. 2006. "Ethnocentric Beliefs and Country-of-Origin (COO) Effect." *European Journal of Marketing* 41(11/12): 1518–1544.

Conner, D., K. Colasanti, R. B. Ross, and S. B. Smalley. 2010. "Locally Grown Foods and Farmers Markets: Consumer Attitudes and Behaviors." *Sustainability* 2: 742–756.

Creswell, J. W. 2007. Qualitative Inquiry and Research Design: Choosing Among Five Approaches (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Creswell, J. W. 2013. Qualitative Inquiry and Research Design: Choosing Among Five Approaches (3rd ed.). Thousand Oaks, CA: SAGE Publications.

Creswell, J. W., and V. L. Plano Clark. 2011. Designing and Conducting Mixed Methods Research (2nd ed.). Thousand Oaks, CA: SAGE Publications.

Epler, C. M., T. A. Drape, T. W. Broyles, and R. D. Rudd. 2013. "Influence of Collaborative Reflection and Think-Aloud Protocols on Pre-Service Teachers' Reflection: A Mixed Methods Approach." *Journal of Agricultural Education* 54(1): 47–59.

Feldman, C., and U. Hamm. 2015. "Consumers' Perceptions and Preferences for Local Food: A Review." *Food Quality and Preference* 40: 152–164.

Festinger, L. 1957. *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.

Florida Department of Agriculture and Consumer Services. 2013. *Florida Agriculture by the Numbers*. https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Annual_Statistical_Bulletin/FL_Agriculture_Book/2013/2013%20FL%20Ag%20by%20the%20Numbers.pdf.

Gass, R. H., and J. S. Seiter. 2003. *Persuasion, Social Influence, and Compliance Gaining* (2nd ed.). Boston, MA: Allyn and Bacon.

Glaser, B. G. 1965. "The Constant Comparative Method of Qualitative Analysis." *Social Problems* 12(4):436–445.

The Hartman Group. 2008. "Consumer Understanding of Buying Local." *Pulse Report*, February

Hinson, A., and M. N. Bruchhaus. 2008. "Consumer Preference for Local Strawberries." *Journal of Food Distribution Research* 39 (3): 56-66.

Hodges, A. W., and T. J. Stevens. 2013. "Local Food Systems in Florida: Consumer Characteristics and Economic Impacts." Unpublished manuscript, Food and Resource Economics Department, University of Florida.

Jefferson-Moore, K. Y., R. D. Robbins, D. Johnson, and J. Bradford. 2014. "Consumer Preference for Local Food Products in North Carolina." *Journal of Food Distribution Research* 45(1):41–46.

Johnson, R. B., A. J. Onwuegbuzie, and L. A. Turner. 2007. “Toward a Definition of Mixed Methods Research.” *Journal of Mixed Methods Research* 1(2): 112–133.

Krueger, R. A. 1998. “Analyzing and Reporting Focus Group Results.” Thousand Oaks, CA: SAGE Publications.

Lantz, G., and S. Loeb. 1996. “Country of Origin and Ethnocentrism: An Analysis of Canadian and American Preferences Using Social Identity Theory.” in K.P. Corfman and J. Lynch, ed. *Advances in Consumer Research*. Provo, UT: 374–378.

Lee, D., and G. Ganesh. 1999. “Effects of Partitioned Country Image in the Context of Brand Image and Familiarity.” *International Marketing Review* 16(1): 18–39.

Lin, L., and C. Chen. 2006. "The Influence of the Country-Of-Origin Image, Product Knowledge and Product Involvement on Consumer Purchase Decisions: An Empirical Study of Insurance and Catering Services in Taiwan." *Journal of Consumer Marketing* 23(5): 248 – 265.

Maccoby, E. E., and N. Maccoby. 1954. "The Interview: A Tool of Social Science," in G. Lindzey, ed. *Handbook of Social Psychology*, Vol. 1, Cambridge, MA: Addison-Wesley, 449–487.

Morgan, D. L. 1998. *The Focus Group Guidebook*. Thousand Oaks, CA: SAGE Publications.

Mossler, M. 2012. “Florida Crop/Pest Management Profiles: Strawberry.” http://edis.ifas.ufl.edu/pi037.

Ohlemeier, D. 2013. “Florida Battles Mexican Strawberries.” *The Packer*. http://www.thepacker.com/ commodity-fruits/strawberries/Florida-battles-Mexican-strawberries-234089101.html.

Onken, K. A., and J. C. Bernard. 2010. “Catching the "Local" Bug: A Look at State Agricultural Marketing Programs.” *Choices* 25(1).

Oshikawa, S. 1969. “Can Cognitive Dissonance Theory Explain Consumer Behavior?” *Journal of Marketing* 33(4): 44–49.

Patterson, P. M. 2006. “State-Grown Promotion Programs: Fresher, Better?” *Choices* 21(1): 41–46.

Perez, A., and K. Plattner. “Fruit and Tree Nuts Outlook.” 2014. USDA, Economic Research Service, FTS-357. http://www.ers.usda.gov/publications/fts-fruit-and-tree-nuts-outlook/fts-357.aspx.

Perrea, T., S. Mamalis, K. Melfou, P. Papanagiotou, and A. Krystallis. 2015. "Exploring the Moderating Role of Consumer Ethnocentrism on Consumer Value Perceptions Towards Own-Country Geographic Indication Foods." Paper presented at the EAAE Seminar in Parma, Italy, 14–15 April.

Plattner, K., A. Perez, and S. Thornsbury. 2014. "Evolving U.S. Fruit Markets and Seasonal Grower Price Patterns." Washington DC: U.S. Department of Agriculture, Economic Research Service.

Rumble, J. N., and C. G. Roper. 2014. "Talking Local: Florida Consumers' Flexibility with the Term Local." IFAS Extension, AEC515, University of Florida.

Shope, R. 2013. "Walmart's Sale of Mexican Strawberries Angers Florida Growers." *Tampa Bay Times*. http://www.tampabay.com/news/business/agriculture/walmarts-sale-of-mexican-strawberries-angers-florida-growers/1274042.

Stoltman, J. J., Y. K. Lim, and F. W. Morgan. 1991. "The Effect of Country of Origin, Product Familiarity and Ethnocentrism on the Acceptance of Foreign Products." Paper presented at the Academy of Marketing Winter Educators Conference.

Twyman, J. 2008. "Getting it Right: YouGov and Online Survey Research in Britain." *Journal of Elections, Public Opinions and Parties* 18:343–354.

Vavreck, L., and D. Rivers. 2008. "The 2006 Cooperative Congressional Election Study." *Journal of Elections, Public Opinion and Parties* 18(4):355–366.

Verbeke, W. 2005. "Consumer Acceptance of Functional Foods: Socio-Demographic, Cognitive and Attitudinal Determinants." *Food Quality and Preference* 16(1):45–57.

Verbeke, W., and J. Roosen. 2009. "Market Differentiation Potential of Country-of-Origin, Quality, and Traceability Labeling." *The Estey Centre Journal of International Law and Trade Policy* 10(1): 20–35.

Walker, N. J. 2010. "An Examination of Integration of Academic and Vocational Subject Matter in the Aquaculture Classroom." *Journal of Agricultural Education* 41(2): 54–64

Witt, C., D. L. Doerfert, J. D. Ulmer, S. Burris, and W. Lan. 2013. "An Investigation of School Contentedness Among Agricultural Education Students." *Journal of Agricultural Education* 54(2): 186–204.

Wu, F., Z. Guan, and A. Whidden. 2012. "Strawberry Industry Overview and Outlook." Unpublished manuscript, Gulf Coast Research and Education Center, University of Florida.

Yue, C., and C. Tong. 2009. "Organic or Local? Investigating Consumer Preference for Fresh Produce Using a Choice Experiment with Real Economic Incentives." *HortScience* 44(2): 366–371.

Zepeda, L., and C. Leviten-Reid. 2004. “Consumers' Views on Local Food.” *Journal of Food Distribution Research* 35(3): 1–6.

Zepeda, L., and J. Li. 2006. “Who Buys Local Food?” *Journal of Food Distribution Research* 37(3): 1–11.

Zerbe, W. J., and D. L. Paulhus. 1987. "Socially Desirable Responding in Organizational Behavior: A Reconception," *Academy of Management Review* 12(April): 250–264.