

NATURALLY CONFUSED: A FOCUS GROUP STUDY DESCRIBING SELECTED
CONSUMERS' PERCEPTIONS OF ALL-NATURAL AND ORGANIC PORK

By

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To Mom, Dad, Scott, Brian, and Wrigley: The people and one dog who will always love me, no matter what.

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Abstract of Thesis Presented to the Graduate School
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Consumers' concerns about food production have encouraged the rapid growth of the organic and natural meat markets in recent years. A variety of labeling and claims are used to address these concerns. Among those are the certified organic label and the all-natural claim. During the time consumers' interest in organics was increasing, the niche pork market emerged. Niche pork producers may use the all-natural claim on labeling to differentiate and add value to their products. However, value is only added as much as the target consumers perceive all-natural products to be better. This study focused on consumers' perceptions of the terms "organic" and "all-natural" as used on pork products.

The purpose was to use focus groups to describe a representative sample of selected consumers' perceptions of pork products with an all-natural or organic label. To achieve this purpose, focus group discussions addressed the following objectives: 1) Determine participants' perceptions of the terms "organic" and "all-natural" in reference to pork products, 2) Determine participants' reactions to the United States Department of Agriculture organic standards for meat production and policy for natural claims, 3) Determine participants' taste perceptions of all-natural pork products, and 4) Determine participants' attitudes toward the price of all-natural pork products as affected by tasting all-natural pork.

The research design was qualitative in nature. Participants associated the term “all-natural” as used on pork products with perceptions of production and processing aspects, including hogs that are raised outdoors without the use of antibiotics or growth hormones, fed higher quality food, and no use of preservatives or chemicals in the final pork product. Results of this study showed that participants had positive perceptions of both organic and all-natural pork products, with some exceptions regarding taste, price, and trust in the information source. Participants were particularly skeptical of the term “all-natural” on pork package labeling. The only obvious differing perceptions between organic and all-natural was that organic also means no pesticides, is regulated by the government, costs more money, and is associated more with produce rather than meat. After participants reviewed and discussed a handout with the USDA standards for organic meat production and policy for natural claims, observations indicated that the USDA definition for all-natural did not corroborate with the participants’ definition of the word on meat packages.

Participants generally had positive taste perceptions of all-natural pork products and perceived an all-natural pork sample to taste better than a conventional/unlabeled sample in a double-blind taste test. However, participants had differing taste expectations of all-natural pork products during the double-blind taste test. One of the focus groups expected all-natural pork products to taste inferior to conventional pork, while the other expected all-natural pork products to taste better. Overall, participants perceived a minimal amount of value in the term “all-natural” in isolation, but favored and were willing to pay a premium for all-natural pork products if they preferred the taste.

CHAPTER 1 INTRODUCTION

Consumers today are bombarded with labels and claims that are intended to address their concerns about how food products are produced, processed and regulated. Among those are the “natural” or “all-natural” claims and the certified organic label. With producers, marketers and consumers of organic food regularly using the concept of natural and naturalness to characterize organics (Verhoog, Matze, Lammerts Van Bueren, & Baars, 2003), the consumer may understandably be confused by the seemingly different contexts in which natural claims are used.

An increase in consumers’ interest and confusion about organic products during the 1990s led to the institution of the U.S. Department of Agriculture National Organic Program in October 2002 (California Institute for Rural Studies, 2005). These standards were established to assure consumers that so-labeled products are produced, processed, and certified to meet the consistent national organic regulations (National Organic Program, 2002a). The organic standards provide a set of guidelines for food to be labeled organic that affect the growing, handling, and processing of organic food. For organic meat production, the standards prohibit the use of antibiotics and growth hormones, require animals to be fed 100% organic feed, and require animals to have access to outdoors and access to pasture for ruminants. The organic label is considered a certified label, whereas “natural” claims are upheld by USDA policy. The term “natural” (or all-natural) refers only to the processing of meat once the animal is slaughtered. It is defined by the USDA as containing “no artificial ingredients, coloring ingredients, or chemical preservatives; and the product and its ingredients are no more than minimally processed” (Food and Safety Inspection Service, 1999).

Consumers’ concerns for food that is healthy, safe and ethically produced are often equated with organic. Concern for human health and safety motivates consumers to buy organic food as

insurance and/or investment in health (Yiridoe, Bonti-Ankomah, & Martin, 2005; Zehnder, Hope, Hill, Hoyle, & Blake, 2003). These concerns have encouraged the rapid growth in the organic and natural food markets in recent years. Once limited to a small number of retail stores, organic foods are now available in natural supermarkets, conventional supermarkets, farmer markets, and discount club stores (Dimitri & Greene, 2002). Since 2000, most organic foods have been purchased in conventional supermarkets.

Overall, most studies report that consumers purchase organic foods because they perceive them as safer, healthier, and more environmentally friendly than conventionally produced foods. Consumers' perceptions of the merits of a production system are highly likely to influence their perception of the quality of a product produced from such a system (Edwards, 2005). Price, lack of knowledge, lack of trust, and limited availability are the major reasons preventing non-buyers from purchasing organics (Yiridoe, et al., 2005; California Institute for Rural Studies, 2005). In the organic food market, fresh produce is the top-selling category, followed by nondairy beverages, breads and grains, packaged foods, and dairy products (Dimitri & Greene, 2002).

Although not in the top-selling categories, organic meat is the fastest-growing segment of the \$14 billion organic food business. From 2004 to 2005, organic meat sales went up 55% to \$256 million, but organic meat accounts for only 0.22% of overall meat sales (Organic Trade Association, 2006). According to ACNielsen LabelTrends (as cited in Moran, 2006), natural labeled meat sales in mass merchandiser stores have nearly doubled since 2003 to \$681.3 million. The growing organic and natural meat markets suggest that factors relating to the production of meat may be a consideration in consumer purchasing decisions.

Pork consumption has been on the rise since the late 1990s and is expected to continue rising as the U.S. population grows. A report from the USDA Economic Research Service

covered the factors affecting pork consumption in the United States. Pork ranks third in meat consumption and totals to about 51 pounds per person annually. Per person, fresh pork accounted for an average of 38 percent of all pork consumed and processed pork accounted for 62 percent. Pork chops hold the largest share of the fresh pork market, while smoked ham is the most commonly consumed pork in the U.S. (Davis & Lin, 2005).

During the time consumer interest in organics was increasing, U.S. market hog prices fell to historically low levels, leading to the establishment of niche pork markets in the late 1990s. The market decrease in 1998 adversely affected both small and large pork producers, but “smaller scale producers competing in the open market faced a particularly dire situation” (Wheatley, p. 18, 2003). Niche markets are a viable solution for smaller producers, because some of these markets capture a higher dollar, while requiring less capital-intensive methods of production. To capture this higher dollar, niche pork products claim product differentiation in two general ways – superior or unique product quality and social or credence attributes (Honeyman, et al., 2006). All-natural pork is part of the niche pork market. Niche pork producers use the term “natural” or “all-natural” in different ways and it varies from producer to producer. Natural could mean the pork was processed in accordance with the USDA’s natural claims policy, or it could refer to raising the pig “naturally,” meaning, for example, without the use of antibiotics or growth hormones and raising outdoors (Nichepork.org, 2006).

Producers may switch to organic or “natural” production based on a combination between their agricultural philosophy and market forces. Attitudes are significant in determining producer conversion to organic farming systems and consumer purchase behavior, and there are many commonalities among attitudes (McEachern & Willock, 2004). Producers’ attitudes toward animal welfare, chemical use, and sustainability are certainly activators of their decision to

convert to organic farming systems. However, the market forces are particularly important to farmers as well. The USDA Economic Research Service (2005) reports that many U.S. producers embrace organic farming to lower input costs, conserve nonrenewable resources, capture high-value markets, and boost farm income, especially as prices fall for staple commodities.

“Obstacles to adoption by farmers include high managerial costs and risks of shifting to a new way of farming, limited awareness of organic farming systems, lack of marketing and infrastructure, and inability to capture marketing economies” (para. 4). An additional barrier is the cost of the services from the National Organic Program, which is required to sell food with an organic label. Meat producers seeking to capture a piece of the high-value natural and organic food market may appeal to consumers by incorporating some organic production techniques and processing within the natural claims policy.

Understandably, producers want to use legitimate production and/or processing claims to capture a piece of the high-dollar market for such products. However, coupling those claims with the term all-natural may have led to consumer confusion. An article in the New York Times sums up the issue by stating,

Probably the most confusing and fungible word in all of food labeling is the term "natural." When it is applied to meat, it can signify many things –that the animals were not given antibiotics or hormones, that they were not fed rendered animal byproducts and that they lived a happy life outdoors. Or it could mean almost nothing (Warner, 2006, p. C4).

Statement of the Problem

The labeling of natural pork products may influence consumer perceptions of production practices related to animal welfare and avoidance of hormones or antibiotics. The USDA has recognized that many individuals regard these conditions as an integral part of “natural” labeling even though such statements remain independent of the policy regarding the use of the term “natural” (Food and Safety Inspection Service, 1999).

Much of the meat that is labeled with claims to address consumer concerns about environmental, livestock care, and human dietary issues meets the “natural” label requirements (Honeyman et al., 2006). These claims may include “raised outdoors” and/or “no antibiotics,” which are integral parts of organic livestock production. As a result, the average consumer may not perceive a clear difference between “organic” pork and “natural” pork. Consumers associate no hormones and no antibiotics with the natural label, at least in the case of beef (Diel & Associates, 2001). The average consumer is probably not aware that the USDA Food and Safety Inspection Service prohibits the use of growth hormones in raising hogs for consumption (2006). Pork labels are not allowed to claim “no hormones added,” unless it is followed by the statement federal regulations prohibit the use of hormones. Producers attempting to further differentiate their all-natural pork product may add the statement “no hormones added” even though that particular aspect of their production methods does not truly differentiate their product. However, unless the consumer is aware that federal regulations prohibits the use of hormones in pork production or reads the fine print, for them that claim may differentiate the product from others. Recent research shows that consumers are becoming more aware of labeling alluding to how the food was produced or processed, but their knowledge of what the labels exactly mean (i.e., the standards or policies set by the USDA to certify or verify the food for a certain label) lag behind their general awareness (California Institute for Rural Studies, 2005). Although consumers’ perceptions and understanding of the organic label has been explored, there have not been any studies on natural claims used on meat labeling. Exploring consumers’ perceptions of the terms “all-natural” and “organic” will offer insight into how the use of these on meat labels affects their attitudes toward those products and how the claims influence their purchasing decisions.

Discovering perceptions of both terms offers a comparison so that we can describe the gaps and overlap between the two.

The media are an important source for food-related information (Frewer, Howard, Hedderley, & Shepherd, 1996). Arguably, the media's role in communicating about food labels specifically is highly important. By design, a food label or claim does not communicate exactly what it means (i.e., standards for that label). It merely identifies or differentiates a certain type food product, whether it be organic, all-natural, or free range. The government standards, policies, and regulations for food labels are too comprehensive and are not written in a widely accessible manner. Thus, it partly falls upon the duty of the media to inform the consumers about food labels and what they mean. However, the mass media do not typically use objective sources when reporting about organic-labeled foods. Government regulators and scientists are rarely cited for information in these news stories. Journalists focus on controversy in science topics like agricultural production and therefore cite sources with a personal opinion about organic production when communicating about these foods (Meyers & Chodil, 2006). Agricultural communicators specialize in communicating about food production and products, and have access to government regulators and agricultural producers for more objective knowledge and information. This research has particular implications for agricultural communicators who are often called upon to bridge the knowledge gap between agriculture and the public and to develop marketing plans for agricultural products. These professionals are familiar with government regulations and producers' practices with regards to all-natural claims and organic labeling. They need to understand consumers' perceptions of organic and all-natural in order to communicate about these products in a way that resonates with consumers.

The number of large pork producers continues to increase, while the number of small producers continues to decrease. Regardless of size, lack of profits to sustain expansion plans is expected to be the largest growth-limiting factor (Lawrence & Grimes, 2000). “Environmental regulations and lack of market outlets are the next most highly ranked obstacles to growth. Market outlets are more important for smaller producers and environmental regulations are more important for larger producers” (p. 6). Looking for ways to continue operations, smaller-scale producers have been entering niche markets by offering value-added pork products. A group of 10 producers in Florida and southern Georgia are part of these smaller producers that have joined together under the brand name Madison Farms All-Natural Pork to explore the marketing opportunities in value-added pork products (F. Hall, personal communication, November 15, 2006). This group of small producers contracted with an agricultural marketing company that decided to pursue market research with a representative sample of consumers. The agricultural marketing company decided to work with University of Florida researchers to provide Madison Farms All-Natural Pork with unbiased, rigorous research results. Adding value is a customer-oriented concept –value is only added to food products to the extent that target consumers actually perceive these products as better (Grunert, 2005). For this reason, the group of producers sought to learn a representative sample of Florida consumers’ perceptions of all-natural pork to develop marketing plans for the southeastern United States.

The largest niche pork marketers reside in the north central United States, which may explain why much of the marketing and consumer research regarding niche market pork attributes has been localized to the central and western regions of the United States. About 68% of the U.S. hog herd resides in the Corn Belt area, where they have access to that region's abundant supplies of feed grains and soybean meal (Davis & Lin, 2006). The southeastern

United States has 20% of the hog herd, which is the second largest concentration in the nation. Pork consumption is highest in the Midwest, followed by the South (Davis & Lin, 2005). Pork is an integral part of the distinct cuisine in the southern United States and a staple ingredient in Southerners diets (Egerton, 1993). The prevalence of the hog industry and pork consumption in the southeastern United States makes it a good location to explore consumers' perceptions.

Significance of the Problem

Marketing natural products as higher quality than conventional products has a unique set of challenges.

The challenges of marketing natural products once consumer preferences have been determined are not clear. The underlying issue of the market information problem is quality signaling. If producers can not differentiate their product, securing premiums for the unique bundle of attributes their product may offer consumers cannot be achieved (Grannis & Thilmany, p. 477, 2002).

Natural pork products attempt to signal quality to consumers through credence attributes, which are attributes that can not be assessed before purchase or after its use. Consumers' demand for quality increases as more products encompass credence attributes, but quality signaling to consumers is difficult with these products (Auriol & Schilizzi, 2003). Previous research has demonstrated that quality signaling is most easily accomplished through the use of a certified label (Caswell & Mojduszka, 1996; Auriol & Schilizzi, 2003). There is no such thing as a "certified natural" label. The claim must be true in accordance with Food and Safety Inspection Service policy, but there is no formal inspection for that claim. Discerning consumers' perceptions of risk, trust, and quality associated with organic and all-natural pork is crucial for effective marketing and communication about these products and their attributes. Although perceptions of organics have been explored in previous studies (Yiridoe, Bonti-Ankomah, & Martin, 2005) perceptions of natural claims have not.

Research has found that many consumers are willing to pay 3 to 10% more for natural pork products and/or pork products with credence attributes, such as raised outdoors, no antibiotics, or family-farm raised (Grannis & Thilmany, 2001; Dransfield, et al., 2005). Studies have shown consumers are paying at least 10% to over 100% more for organic food (Dimitri & Oberholtzer, 2005; Dimitri & Greene, 2001). Since price is the prominent barrier for most consumers, a premium around 5% for natural fresh pork may be more appealing. Discovering the value consumers perceive in those products that makes them willing to pay more will help agricultural communications marketing professionals communicate the quality of those products. The rapid growth of the organic and natural meat market signifies a change in consumers' preferences, so it is important to understand their perceptions of such labeled meat. Beyond that, exploring how the prevalence of organic foods has affected consumers' perceptions of the natural claim may suggest ways in which producers can add value to their product, help food regulators determine future adjustments in policy, and help agricultural communicators communicate about these labels in a way that resonates with consumers.

Purpose of the Study and Research Questions

Consumer trust in information about food-related risks is related to perceptions of accuracy, knowledge, and concern for public welfare. Research suggests the media are the most trusted source of food-related risk information while trust in information from industry sources (such as marketing) is hindered by perceptions of selfish, economic interests (Frewer, Howard, Hedderley, & Shepherd, 1996). To be effective, marketing strategies and government regulations and policies for organic and all-natural food must consider consumers' attitudes and/or social or cultural characteristics.

The purpose was to use focus groups to describe consumers' perceptions of pork products with an all-natural or organic label. Previous qualitative studies show that consumers have high

expectations for the quality of pork with credence attributes, but are often confused by what the claims mean (Ngapo, 2003; Bredahl & Poulson, 2002 & Scholderer, et al., 2004). Based on the purpose of this study, the following research questions were developed to guide the study.

- **RQ1:** What are the perceptions of a representative sample of consumers toward the terms “organic” and “all-natural” in reference to pork products?
- **RQ2:** What are their reactions to the USDA organic standards for meat production and policy for natural claims?
- **RQ3:** What are their taste perceptions of all-natural pork products?
- **RQ4:** How do their taste perceptions affect their attitudes toward the price of all-natural pork products?

Assumptions

An important assumption in this study is the general lack of knowledge and understanding of the standards and policies behind meat labels and claims. A study on the impacts of the organic standards surveyed 1,000 households nationwide and found that only 37.1% of Americans are aware of the National Organic Program standards, while their understanding of what the standards entail varied (California Institute for Rural Studies, 2005). Yet 74.3% believe USDA organic labeled food is better for the environment, 70.2% feel is safer, 64.8% believe it is healthier, and 45.9% believe it is more nutritious. Another assumption is that consumers are projecting these beliefs associated with organic food on to food labeled as “natural.” Diel & Associates (2001) found that an average of 64% of consumers associate no antibiotics and no hormones with all-natural beef products.

Limitations

Most of the limitations in using and analyzing focus groups are the downsides of the advantages. First, the small number of participants in focus groups limits the ability to generalize the findings to a larger population. However, the goal of qualitative research is to gain a deep

understanding of people’s concerns, beliefs, attitudes, lifestyle, motivations, and behavior.

People communicate those most appropriately through their own words, which is the benefit of the open-ended discussion format of focus groups. Qualitative methods intend to gather deep insights on a particular topic and gain a rich, detailed understanding of people’s thoughts.

Second, the location of the focus group typically means that participants will only come from the local area, in this case, the Gainesville, Florida area. Third, responses from participants are not independent of what other group members say, but arguably focus groups are a more accurate representation of reality (Krueger, 1994). People’s opinions are influenced by what they learn from other people. Fourth, analyzing the data is difficult because of the focus group’s open-ended question format (Krueger, 1998). The researcher must be objective and cautious when analyzing results to ensure comments are interpreted within the context they were meant.

Definitions of Key Terms

- **Accountability:** “Being answerable to audiences for fulfilling obligations, duties, and expectations” (Sinclair & Irani, 2005, p. 61).
- **All-natural:** Synonymous with “natural” under USDA policy for natural claims; this was the term used throughout the focus group discussions.
- **Credence attributes:** Quality attributes of a product that can not be assessed by the consumer before or after use and affect products’ perceived quality only so much as consumers’ trust in the claims; for example, a label on a pork product indicating “raised under environmentally friendly practices” would be considered a credence attribute (Darbi & Karni, 1973; Scholderer et al., 2004).
- **Conventional:** Refers to food production or food products that are produced in ways that would not qualify the final food product for the natural claims, production claims (e.g., no antibiotics, no hormones, etc.), or the USDA organic label.
- **Free range:** Can only be used on poultry packaging in the United States and refers to raising the poultry in conditions where they have access to the outdoors.
- **Natural:** Defined by the USDA under the policy for natural claims as containing “no artificial ingredients, coloring ingredients, or chemical preservatives; and the product and its ingredients are no more than minimally processed” (Food and Safety Inspection Service, 1999).

- **Niche pork products:** Pork products that claim superior or unique product quality and credence attributes (Honeyman, et al., 2006). All-natural pork is considered a niche pork product.
- **No antibiotics:** Animals raised without the use of antibiotics
- **Organic:** Refers to any food qualifying for the USDA certified organic label under the National Organic Program standards. For organic meat production, the standards prohibit the use of antibiotics and growth hormones, require animals to be fed 100% organic feed, and require animals to have access to outdoors and access to pasture for ruminants (National Organic Program, 2002a).
- **Perceived quality:** The consumer's judgment about the superiority or excellence of a product (Ziethaml, 1988).
- **Perceived value:** Highly personalized and thus varies for individuals; the definitions grouped into four categories are "(1) value is low price, (2) value is whatever I want in a product, (3) value is the quality I get for the price I pay, and (4) value is what I get for what I give" (Ziethaml, 1988, p. 13).

CHAPTER 2 REVIEW OF LITERATURE

The theoretical framework for this study includes the theory of planned behavior, the means-end theory, and theories related to risk perceptions. All three areas of theory offer explanations of attitude formation, motivation, and behavior in consumer decision making with regard to natural and organic foods. These theories contributed to the analysis of the results. This study also draws on previous studies in perceptions of food quality, perceptions of taste, price-value attitudes, and perceptions of organic and natural foods.

Theory of Planned Behavior

The theory of planned behavior both explains and predicts behavioral intentions. The theory states that a person's behavioral intention is essentially determined by three factors: the attitude that the person holds towards the behavior; the degree of social pressure felt by the person to perform or not perform the behavior; and the degree of control that the person feels he or she has over performing the behavior. Attitudes are formed based on an individual's positive or negative belief about performing a behavior and the evaluation of the outcomes as good or bad of that behavior, referred to as *behavioral beliefs*. The subjective norm is predicted by an individual's perception and motivation to comply with social norms, referred to as *normative beliefs*. Similarly, *control beliefs* determine an individual's perceived control to perform or not perform a given behavior. In the theory of planned behavior, attitudes, subjective norm and perceived control have a direct effect on behavioral intention (see Figure 2-1). Although dependent on the application, the more positive the attitude and subjective norm with respect to a behavior, and the greater the perceived control, the stronger the intention is to perform the behavior (Ajzen, 1991).

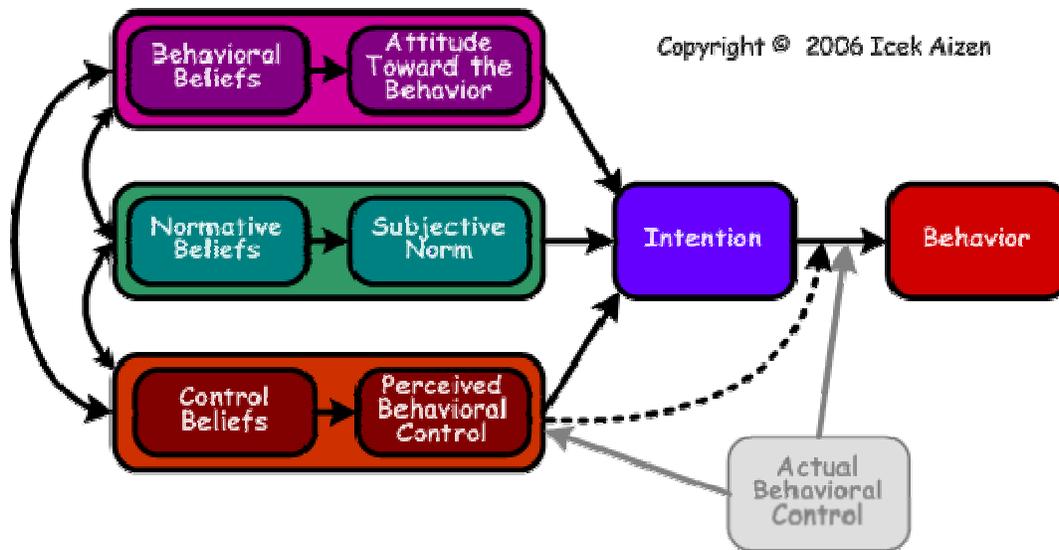


Figure 2-1. A model diagram of the theory of planned behavior (Ajzen, 2006).

The theory was originally developed to explain social behaviors, but has since proved applicable to explain consumers' food choice (Sparks, Conner, James, Shepherd, & Povey, 2001; Scholderer, Bredahl, & Magnusson, 2004). Shepherd (1999) contends that it generally affords good prediction of behavior, and can be used to determine the relative importance of different factors in influencing food choice. Bredahl, Grunert, and Frewer (1998) found that attitudes toward buying genetically modified food are determined by perceived attributes and consequences of buying and consuming that product, and by the attitude the person has toward food production in general. With food products, perceived behavioral control is based on a person's competence in judging risks and benefits of a product in purchase situations, and on time and access to those products. Using the theory of planned behavior to research Danish consumers' attitudes toward fresh fish before an advertising campaign revealed some of the perceived barriers to actually purchasing fresh fish. Scholderer and Grunert (2001) showed that the theory is still useful in situations when consumers' food purchase intentions are inconsistent with their actual behavior. The inconsistency may indicate that situational factors, such as labeling, shelf positioning, and packaging, play a predominant role.

The theory of planned behavior can be applied to describing consumers' purchasing behavior in regard to organic and all-natural food. The three factors of this theory could be applied to this topic as: personal attitudes toward organic and all-natural foods, social and cultural factors, and the degree of personal involvement in food purchases. Social and cultural factors (subjective norms) may be viewed as related to the cultural definition of "natural" in terms of pork production, the increasing prevalence of these products in supermarkets, and/or family status (e.g. "What do I want to feed my family?").

Sparks and Shepherd (1992) found that self-identity plays an additional role in the theory of planned behavior. Consumers that identified themselves as "green consumers" were more likely to have intentions to purchase organic food. Self-identity affected their intent to purchase organic food independently of attitude, subjective norm, and perceived behavioral control. This fourth factor in the theory of planned behavior can be applied in this study to help understand how consumers' proclaimed self-identity as "regular organic foods shoppers" affects their intention to buy all-natural pork. These consumers may buy all-natural labeled foods because it has become a central aspect of their self-concept.

Bentler and Speckart (1979) added past behavior as another independent variable that influences behavior in the theory of planned behavior. These researchers postulate that behaviors may be habitual and therefore not controlled by intentions. Food choices and purchase behavior may become habitual for many consumers since it is a regular occurrence in their lives (as cited in Eagly & Chaiken, 1993). As a result, organic food shoppers may not consider other options simply because they have always bought organic foods since the point in time when they made the conscious decision to do so.

Means-End Theory

The means-end theory (Gutman, 1982) is complementary to the theory of planned behavior, as it also reveals motivations behind consumers' decisions. The theory is based on the assumption that consumers purchase products because of perceived benefits from using the product. The theory brings together the cognitive oriented and motivational oriented perspectives to provide a framework for studying and explaining consumer behavior. The cognitive perspective of consumer decision-making focuses on the consumer's knowledge of a product in terms of its attributes and functional consequences (Reynolds & Olson, 2001). Within this perspective, food purchasing decisions are evaluated by the consumer's knowledge of a particular food's nutritional consequences. The motivational perspective focuses on consumers' personalities, lifestyles, and motivations to study their behavior. Again, in food purchasing decisions, research from this perspective would look at how a consumer's self-schema as a "healthy eater" affects their purchasing decisions. The means-end theory argues that attributes, consequences and values are not independent precursors of attitude or behavior. "A product attribute is not relevant in and by itself, but only to the extent that the consumer expects the attribute to lead to one or more desirable or undesirable consequences" (Brunso, Fjord, & Grunert, 2002, p. 8).

The means-end chain illustrates the links between product attributes, consequences, and values, where the means is the product and its functional consequences and the end is the fulfillment of life values. In simpler terms, the product's attributes and the results of its use are a means to an end. "The end is a personal need, goal or value that reflects the perceptual orientation of the consumer and shows how he or she translates a seemingly inconsequential product into an object having deep personal relevance and importance" (Reynolds & Olson, 2001, p. 217).

Bech-Larsen and Grunert (1998) used the means-end chain model to assemble a hierarchal value map of Danish consumers' perceived attributes, consequences, and life values associated with organic pork (as cited in Scholderer, et al., 2004). Hierarchal value maps summarize qualitative interviews across participants/consumers to show how consumers translate the attributes of products into meaningful associations with respect to the self (Reynolds & Olson, 2001). The results indicate that consumers' perceived attributes of organic pork, such as "pigs are reared properly," "less, no use of antibiotics, chemicals," and "more expensive," are related to perceived functional consequences and result in fulfilling their life values. The hierarchal value map is shown in Figure 2-2.

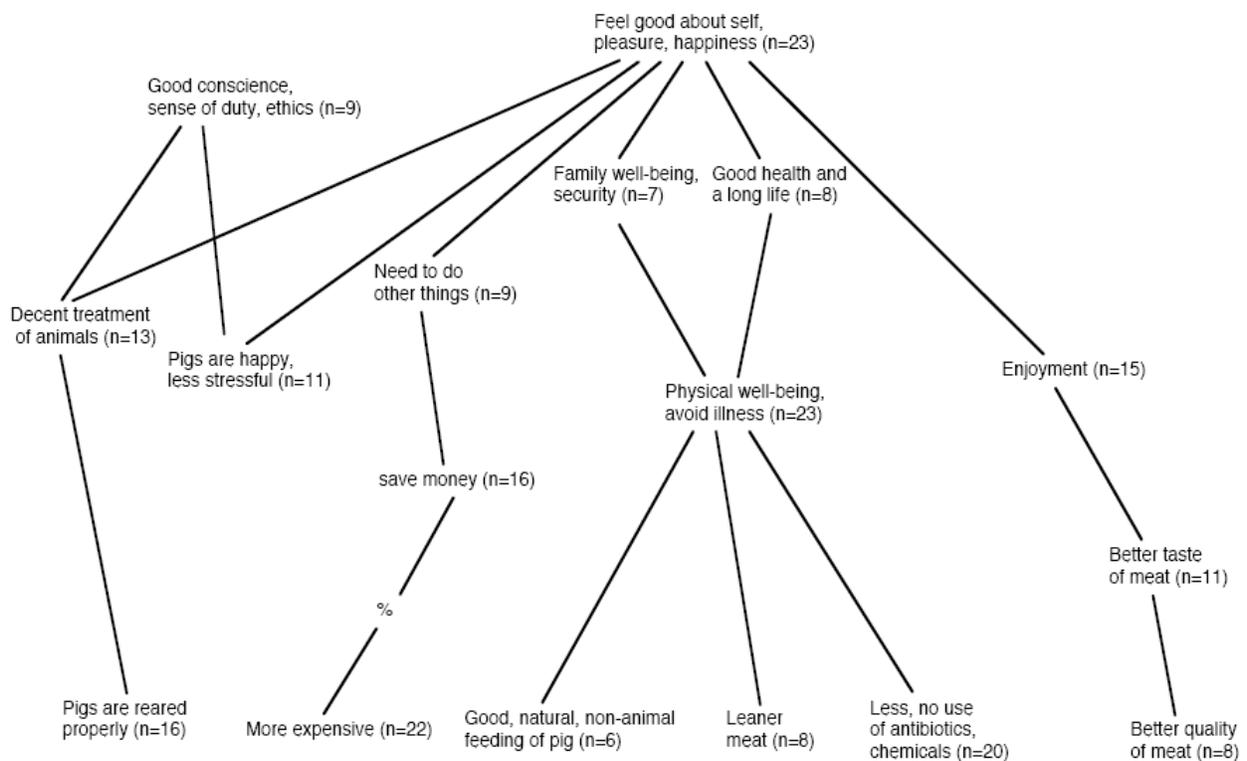


Figure 2-2. Bech-Larsen and Grunert's (1998) hierarchal value map of associations of Danish consumers with perceived attributes of organic pork. (Cited by Scholderer et al. 2004)

“Means-end theory provides one of the most powerful premises for developing a customer-focused communications strategy” (Reynolds & Olson, 2001, p. 216). Peter and Olson (1994) argued that consumer involvement grows when marketers bring out personally relevant psychological and sociological reasons for consuming their products, and consequently, involvement can be manipulated by marketing programs (as cited in Reynolds & Olson, 2001).

Although the intentions of this study are not to build a means-end chain, the theory helps explain how consumers translate all-natural and organic pork product attributes into functional consequences that relate to their life values or self-schema. It may be the case that attributes of these products appeal to consumers’ family status role (mother, care-taker, protector, etc.), beliefs regarding of animal welfare, and/or identity as an organic foods shopper.

Risk Perceptions

Consumer behavior is shaped by risk perception. Risk analysis theory falls within the psychometric paradigm, which explains the psychological basis of people’s perceptions of risk. The theory suggests that laypersons evaluate risk qualitatively in rich detail based on perceived control and understanding of the risk, whereas experts tend to evaluate risk empirically focusing on probability and severity of the risk (Slovic, 1987). In people’s subjective evaluation of risk, nine general properties of activities or technologies emerge: (1) voluntariness of risk, (2) immediacy of effect, (3) knowledge about the risk by the person who are exposed to the potentially-hazardous risk source, (4) knowledge about the risk in science, (5) control over the risk, (6) newness, i.e. are the risks new and novel or old and familiar ones, (7) chronic/catastrophic, (8) common/dread, i.e. whether people have learned to live with and can think about the risk reasonably and calmly, or is it a risk that people have great dread for, and (9) severity of consequences (Fischhoff, Slovic, Lichtenstein, Read, & Combs, 2000).

Perceptions of knowledge, newness, or unfamiliarity, and the potential immediacy of consequences are highly correlated with consumer perception of food risk (Yeung & Morris, 2006). Food risk perceptions are conceptualized in terms of risk to human health, the environment, the economy, animal health, and future generations (Miles & Frewer, 2001). Ethical concerns about food production practices and food safety also encourage public food risk perceptions. Communication about risks must be a two-way process between the expert and public for optimal effectiveness (Slovic, 1987). Understanding public perception of risk provides insight into effective food safety and risk communication and how the public will react to new technology (Knox, 2000). Risk is often an unavoidable product of advances in science and technology, and the science of agriculture is no exception. Agricultural communicators regularly engage in risk communication when informing consumers about agricultural production and processing practices and their impact on the food system.

Several studies have found the level of trust to be closely related to risk perception (Biel & Dahlstrand, 1995). Both risk and trust perceptions in the case of food are seen as multidimensional; they are dynamic and continuous rather than a static phenomenon (Miles & Frewer, 2001; Yee, Yeung, & Morris, 2005). McGuire (1985) explained that trust is determined by the extent to which an institution or information source is perceived as credible and honest (as cited in Frewer, Kole, Van De Kroon, & De Lauwere, 2005). Trumbo and McComas (2003) found that “higher credibility for industry and the state directly predicts lower risk perception, whereas high credibility for citizen groups predicts greater risk perception” (p. 343). However, with food risk perceptions, the persuasive content of the message and the type of risk have a greater effect on the number of risk-relevant thoughts than source credibility (Frewer, Howard, Hedderly, & Shepherd, 1997).

Dependence on the media, particularly newspapers and television news, for food safety information is also correlated with greater food risk perception (Tucker, Whaley, & Sharp, 2006); however, the media are the most trusted for food-safety related information (Frewer, Howard, Hedderley, & Shepherd, 1996). Media tend to focus on the unknown when communicating food risk and describe it in qualitative terminology (Frewer, Raats, & Shepherd, 1993). Food additives, in particular, are heuristically reported as bad and related risk statements are often unqualified.

In a focus group study of organic and conventional produce buyers, the organic food consumers cited several risk factors to explain their purchasing behavior. These risks include the fear of ill effects related to pesticide residues, growth stimulants, and fertilizers (Hammitt, 1990). The perceived risk from pesticides and the uncertainty surrounding genetically modified food are incentives for consumers to purchase organic foods (Gifford & Bernard, 2006). This study intends to reveal related perceived risks that may emerge as incentives to purchase all-natural labeled meat.

Theories of risk perception may help us understand why consumers prefer to buy natural or organic meat to avoid those risks. Risk perceptions may be amplified by the increasing prevalence of these products in grocery stores. The “no” repetition associated with natural claims (e.g., no chemical additives, no preservatives, no antibiotics) may be telling the consumer that those are food risks. Other forms of risk perception associated with livestock production are the risk to the environment, society morals, and animals, better known as ethical risks. Ethical risk perceptions are gaining importance, but typically rank below health and meat safety risk perceptions (Verbeke & Viaene, 2000). However, pork and poultry come up most often when consumers perceive risks to animal welfare. It may be the case that when marketers use all-

natural to refer to the raising of the pig, invoke images of pigs happily rooting around outdoors and offer pictures of families as the producers, consumers assume extreme opposites for pork without such labels.

Consumer Perceptions of Quality, Price and Value Model

Consumers' perceptions of price, quality, and value and how they are related aid in conceptualizing the cognitive processes in consumer decision making. Ziethaml (1988) proposes a means-end model of price, quality, and value that defined and related the concepts from the consumer's perspective. Essentially it is an extension of Gutman's means-end model.

Quality is broadly defined as superiority or excellence. Ziethaml's model emphasizes perceived quality rather than objective quality, where perceived quality is the consumer's judgment about the superiority or excellence of a product and objective quality is the actual technical or manufactured quality. However, Ziethaml argues that at some point, all quality is perceived. With food products, quality is most affected by experience because most quality perceptions are contingent upon handling and consuming the product. "Expectations of product quality are formed based on evaluations of available cues regarded by the consumers as reliable indicators of the quality of the product" (Scholderer, Bredahl, & Magnusson, 2004).

Quality cues at the point of purchase are most often extrinsic qualities, such as brand, labeling, and price, and during handling or consumption is when quality cues are intrinsic qualities (Olson 1978; Ziethaml 1988). Consumers make assumptions about intrinsic values based on information from extrinsic cues (Olson, 1978). For example, an organic label on a package of potato chips may generate the belief that "it is probably more nutritious for me." Consumers rely on extrinsic attributes in initial purchase situations when they cannot evaluate the relevant intrinsic attributes of a product or when evaluation of intrinsic cues requires more input than the consumer perceives is worthwhile (Ziethaml, 1988).

Darbi and Karni (1973) offer the term “credence attributes” for quality attributes of a product that can not be assessed by the consumer before or after use. For example, a label on a pork product indicating “raised under environmentally friendly practices” would be considered a credence attribute. Whether or not credence attributes signal good quality depends on consumers’ trust of the claims. If consumers do not trust all-natural claims, then they do not signal good quality.

Extrinsic attributes can signal value to a consumer. Consumers’ definition of value is highly personalized and thus varies for individuals. The definitions grouped into four categories are “(1) value is low price, (2) value is whatever I want in a product, (3) value is the quality I get for the price I pay, and (4) value is what I get for what I give” (Ziethaml, 1988, p. 13). Perceived value affects how consumers view the quality of a product and whether or not they will purchase it.

Grunert, Larsen, Madsen, and Baadsgaard (1996) build on Ziethaml’s model (1988) and others to present a total food quality model, shown in Figure 2-2. The model shows how extrinsic and intrinsic cues, cost, and expected quality determine the purchase decision. The model also shows the relationships between expected quality, preparation, consumption, and future purchases.

Although the total food quality model has not been tested per se, it provides a common framework for various tested approaches to food quality perception, including the means-end approach. The model has proved useful in providing structure for examining and explaining food safety and quality (Grunert, 2005). The focus groups contributing to the development of the total food quality model also revealed four major dimensions of food quality, which appear to be universal in Western industrialized countries. Brunsø, Fjord, and Grunert (2002) call them taste

and appearance, health, convenience, and process. Health as a food quality is perceived by how it affects an individual's health. It also encompasses safety and risk-related perceptions.

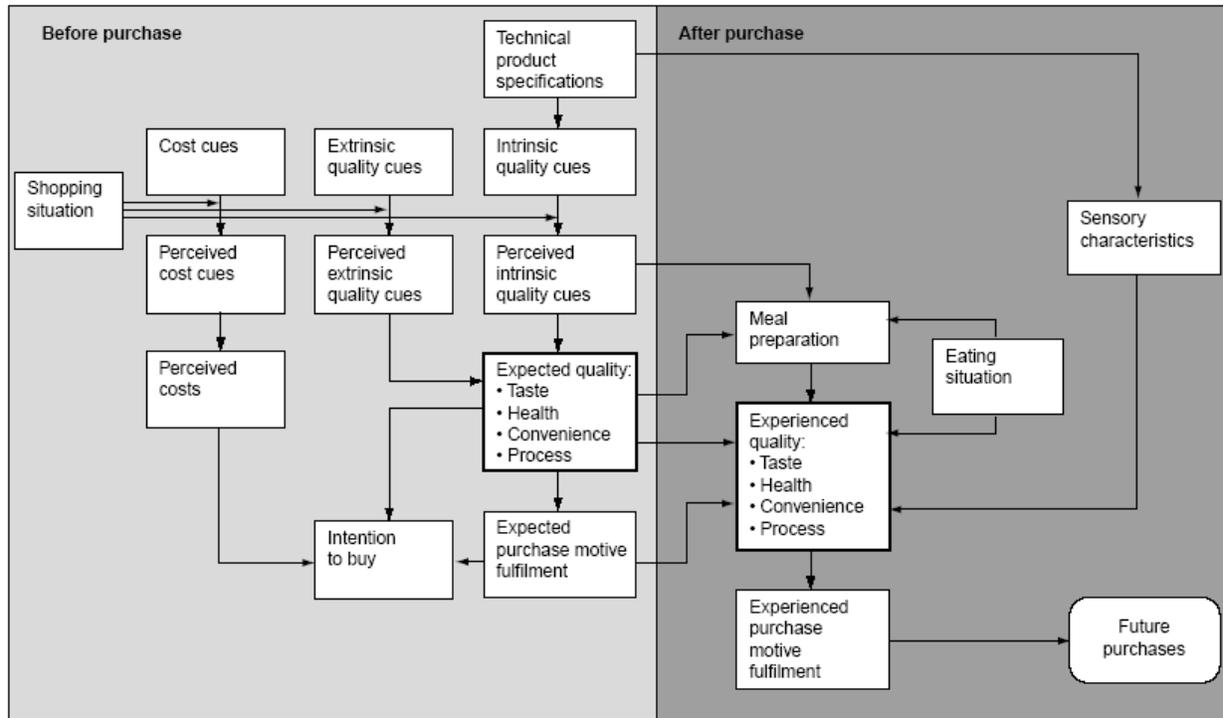


Figure 2-2. Grunert, Larsen, Madsen, and Baadsgaard's (1996) total food quality model.

“Convenience means the saving of time, physical or mental energy at one or more stages of the overall meal process: planning and shopping, storage and preparation of products, consumption, and the cleaning up and disposal of leftovers” (p. 9). Process, or the way a food is produced, has become of particular importance to consumers even when it has no bearing on the taste or healthiness of a product. This quality dimension covers organic production, concerns for animal welfare, the environment and so on. “This quality dimension is also a credence characteristic, since the consumer must rely totally on guarantees about production-oriented quality from various sources” (Brunsø, Fjord, & Grunert, 2002, p. 9). These dimensions of quality are related and can vary from product to product. With respect to all-natural and organic pork, it may be the case that consumers base perceptions of quality on the beliefs they have about

how the production or processing method affects the quality in terms of taste and healthiness. The healthiness aspect of pork is an important quality to consumers, and natural production techniques are closely related to the health quality (Scholderer, Bredahl, & Magnusson, 2004).

Models of consumers' perceptions of quality are applicable to understanding consumers' perceptions of the quality of all-natural and organic pork and how those quality perceptions are related to perceived price and value of those products. The model helps us understand how the perceived quality of all-natural pork is assessed by the consumer, how consumers encode price, and how price and value play into perceptions of quality.

Organic and Natural Pork Quality Perceptions

Ngapo, et al. (2003) used focus groups to obtain insights into decision-making toward fresh pork purchases and pig production using consumers in France, England, Sweden, and Denmark. At the point of purchase, salient extrinsic quality cues were fat cover, price, country of origin, place of purchase, weight, and date of packing or "best before" date. Other labels on pork indicating how the pigs are raised were confusing to consumers and many distrusted the limited information available at the point of purchase.

Grannis and Thilmany (2001) surveyed 1,370 consumers in Colorado, New Mexico, and Utah to determine what pork production practices are important to them. The pork attributes studied were no small or crowded pens, no antibiotics, no growth hormones, grazing managed to protect streams, grazing managed to protect endangered species, and animals born and raised within 250 miles. No use of hormones and no use of antibiotics had the highest average rating, while the "local" attribute had the lowest average rating. Antibiotics and hormones may have been rated highly by consumers surveyed by Grannis and Thilmany because those aspects are perceived as a health risk to consumers in the United States (Hwang, Roe, & Teisl, 2005).

Bredahl and Poulsen (2002) analyzed focus group data to report how consumers defined high quality pork. Salient intrinsic quality cues were defined as good taste, tenderness, juiciness, freshness, leanness, and healthiness. Above all, high quality pork had to taste good. The researchers also revealed a perceptual link between production method and pork quality, where consumers perceived pork from pigs raised outdoors to be of higher quality than pork from pigs raised indoors. Scholderer et al. (2004) found a “halo” effect in consumer quality expectations of pork with credence attributes, meaning the credence attributes partly became experience attributes for the consumers. The study concluded that as long as the differences between quality expectations and quality experiences are small enough, quality expectations raise the level of experienced quality.

Taste Perceptions

The reasons consumers make food purchasing choices are quite complicated. When determining preference for one food over another, it is difficult to distinguish between effects caused by an actual difference in the attributes of a food product and effects caused by individuals having preferences for different attributes. Preferences for meats are most strongly affected by changes in color/appearance and texture (Risvik, 1994). Whether or not niche market pork production affects sensory qualities of pork is not clear. Edwards (2005) found a majority of studies evaluating taste differences between pigs raised outdoors and pigs raised indoors have shown no difference in juiciness or tenderness, and no studies showed a difference in meat flavor.

Scholderer et al. (2004) found that credence attribute labeling affected consumers’ perceptions of the taste of fresh pork. In taste testing, consumers perceived pork chops labeled “free range” or “organic” to have higher eating quality than pork chops left unlabeled or labeled “conventional.” When comparing the same pork without labels, consumers consistently

perceived the organic pork chops to have a slightly lower eating quality. The study reported that consumers have high expectations of pork labeled as organic or free range.

Sensory evaluation is the science of judging and evaluating the quality of a food by the use of the senses, i.e. taste, smell, sight, touch and hearing (Oregon State University Food Resource, 1998). Researchers in the field of sensory evaluation have expressed the need to include sensory evaluation into marketing strategies because taste is an individual experience affected by a number of things, including cultural influences, psychosocial influences, situational variables and expectations (Cardello, 1995b).

Jaeger (2006) proposed synthesizing research in communication and marketing with research in sensory evaluation to enable a more complete understanding of the non-sensory factors that influence consumers' relationships with and decisions regarding food. Integrating the two fields of research reveals that non-sensory factors, including convenience, price, production technology, personal health, branding, and societal issues do account for some aspects of consumers' food related behaviors (Jaeger, 2006).

Price/Value Attitudes

Estimating willingness to pay (WTP) yields beneficial information for agricultural marketers and policy-makers. Various methods attempting to model realistic considerations for obtaining consumers' WTP for quality and safety attributes have been a major stem of agricultural economics research (Grunert, 2005). When scanner data is available, hedonic pricing methods are used to obtain WTP. Hedonic pricing measures values of the individual characteristics of a product by looking at how the price people are willing to pay changes when the characteristics change. When scanner data is not available contingent valuation, experimental auctions and conjoint analysis are popular methods for obtaining WTP (Grunert, 2005). Conclusions from WTP studies should be taken with caution, because consumers' price

involvement or awareness is related to many factors. Consumers do not always know or remember actual prices, so they encode prices in a way that is meaningful to them. For example, organic and natural foods are encoded by consumers as “expensive” rather than in terms of actual price. Many food purchases are part of habitual behavior and may not involve a lot of conscious thought at all (Grunert, 2005).

Price is one of several extrinsic cues available to consumers to judge quality. Ziethaml (1988) defines price from the consumer’s perspective as what is given up or sacrificed to obtain a product, which includes monetary, time, search and psychic costs. However, Ziethaml’s review of research indicates that the use of price as an indicator of quality varies among consumers. In categories where quality variation is expected (i.e., cars, jewelry, refrigerators), price may indicate quality. Where products differ little in price, the consumer may not attribute high quality to slightly higher cost, as is generally the case with food items.

While price is an important factor in consumer decision making, several studies have shown that attributes, such as taste, appearance, tenderness, and leanness rank above price in meat purchasing decisions (Food Processing Center, 2001, Diel & Associates, 2001; Dransfield, et al., 2005).

A national study of 1,200 consumers in Australia found that organic food preference was not related exclusively to higher income. The decision to purchase conventional or organic food relied on a myriad of considerations such as personal preferences, beliefs and practical issues of cost, availability, and convenience. For organic consumers, the most motivating purchase factors were health and natural content of foods followed by price. Ethical concerns for the environment and treatment of animals were rated equivalent to price in overall importance (Lockie, Lyons, Lawrence, & Mummery, 2002).

Cues to a product's intrinsic attributes, such as all-natural, produced without hormones or lean labels, affect consumers' perceptions of its quality (Zeithaml, 1988). Consumers are generally willing to pay more for pork products with labels using terms positively associated with pork production, such as family-farm raised, no antibiotics, no hormones, and environmentally friendly production practices (Freese, 2000; Hurley, Miller, & Kliebenstein, 2006; R Parker & Associates, Inc. & Ashcraft Research, 2005). A survey of consumers in north central U.S. found that 34% of respondents were willing to pay a 10% premium for all-natural products. However, a consumer would need to be convinced that it is worth a premium of 15, 20, or even 25% to buy organic and/or all-natural meat because food safety, tenderness, and taste rank above price (Food Processing Center, 2001). An online survey of 200 female consumers found that price was the most influential factor in purchase decisions of niche pork products, and 49% of respondents ranked price above every other attribute tested (R Parker & Associates, Inc. & Ashcraft Research, 2005).

Grannis and Thilmany (2001) used market surveys to estimate consumer willingness-to-pay for natural pork products in Colorado, New Mexico, and Utah. They found that a significant proportion of respondents were willing to pay a 9% premium for natural ham and a 10% premium for natural pork chops. A study with European consumers found that consumers were willing to pay about 3% extra for pork when all characteristics of appearance and labeling stating "home country produced" and "raised outdoors" were available. After tasting the labeled product, they were willing to pay between 4% and 10% more (Dransfield, et al., 2005).

Organic and Natural Claims Labeling Perceptions

"In the United States, the federal government is increasingly using informational labeling as a means of shaping (a) consumers' knowledge, purchasing patterns, and use practices, and (b)

manufacturers' product offerings and marketing practices" (Caswell & Mojduszka, 1996, p. 1248).

Patchwork methods of organic certification and consumer confusion about organic food in the United States resulted in the implementation of national standards for the production and labeling in the National Organic Program. Since most producers see organic certification as a marketing tool, labeling guidelines are one of the most important sections in certification standards. Most of the differences in labeling guidelines and certification systems were relatively minor, except in the area of livestock production. The uniform national standard for organics significantly impacts the market by increasing buyer confidence (Fetter & Caswell, 2002).

Consumers want to be assured their food is safe and organic food is often equated with safer food. Perceptions of food safety and risk typically relate to concern about food production technologies. In the United States, concern is highest for pesticides and hormones, followed by antibiotics, genetic modification, and irradiation (Hwang, Roe, & Teisl, 2005). The USDA organic regulations address these concerns and the USDA certified organic label distinguishes the food as free of those perceived risks. The United States government frames the organic label as a "marketing label," and rejects the idea that organic food production would have relative advantages to the environment, health or food quality (Boström & Klintman, 2003). The organic label, natural claims and production technique claims are not meant to differentiate the food as safer, but unintentionally, they may have. Government regulations have typically been used to distinguish between safe and unsafe foods; therefore, organic standards could give consumers the impression that conventionally produced foods are unsafe (Klonsky & Tourte, 1998).

The organic label signals quality to the consumer because it is certified by a reputable certification agent whom consumers trust –the USDA. Previous research has demonstrated that

quality signaling is most easily accomplished through the use of a certified label (Zarkin & Anderson, 1992; Caswell & Mojduszka, 1996; Auriol & Schilizzi, 2003). “Certification may be defined as a process whereby an unobservable quality level of some product is made known to the consumer through some guarantee system, usually issued by a third independent party” (Auriol & Schilizzi, 2003, p. 10). Organic products overcome the problem of quality signaling because they are certified by the USDA. Natural meat products differentiating themselves through claims on labeling such as “raised outdoors,” “fed natural feed,” and “family-farm raised” have difficulty signaling quality. These claims on pork labels are often confusing and mistrusted by European consumers (Ngapo, et al., 2003). Distrust in food product claims results if the information source is perceived to be promoting their own vested interests or are perceived as unaccountable or over accountable to others (Frewer, et al., 1996).

Quality labels, like “all-natural,” is a fuzzy category that covers many different things (Grunert, 2005).

Quality labels can be awarded by manufacturers, groups of manufacturers, retailers, government bodies, and independent organizations, for example, consumer associations. The criteria for awarding the labels can be very strict or almost non-existent. Some labels refer to very specific qualities, such as the labels indicating organic production, whereas others are intended as general quality labels (p. 378).

Studies on consumer perceptions of pork with credence attributes found that consumers prefer an abundance of information on packaging labels; however, just giving consumers more information will not reduce asymmetry when consumers do not feel confident about using the information (Grunert, 2005). Although quality labels are important to differentiate a product and demand a higher price, consumers may need other quality cues more familiar to them, such as the color of the meat, date of packaging, visible fat content, and taste to be convinced of its quality.

Summary

The variation in pork producer-set standards for all-natural and consumer confusion about the meaning of the term is reminiscent of the patchwork of state and regional standards for organic. One package of pork labeled as all-natural may only refer to the processing as USDA policy stipulates, while its shelf neighbor may use it to refer to various production techniques as well. Understandably, producers want to use legitimate production/process claims to capture a piece of the high-dollar market for such products. However, coupling those claims with the term all-natural may have led to consumer confusion about the meaning of the term. The USDA National Organic Program website (2002b) and the NichePork (part of National Pork Board) website (2006) address the question of natural versus organic, so the policy-makers and marketers are aware of this confusion. Studies have shown consumers are not aware of the standards behind production and processing claims and often mistrust and are confused by those claims (Ngapo, et al., 2003; California Institute for Rural Studies, 2005). The prevalence of natural and all-natural labeled meat products exceeds the prevalence of organic labeled meat products. Consumers are generally willing to pay more for these products, but need to be convinced of their quality (Freese, 2000; Hurley, Miller, & Kliebenstein, 2006; R Parker & Associates, Inc. & Ashcraft Research, 2005). Understanding consumers' perceptions and intentions to buy all-natural pork products is important for differentiating these products and developing effective marketing plans around signaling good quality to consumers. Exposing the confusion consumers may perceive over the term "all-natural" is helpful to regulatory bodies and policy makers if they seek to build credibility for pork products that use the term and for those that do not. Perceptions consumers have surrounding all-natural pork products can be explored in-depth through focus group methodology. In Europe, the use of focus groups has proven

effective in revealing consumers' perceptions of pork with various production and processing claims (Bredahl & Poulsen, 2002; Ngapo, et al., 2003; Scholderer et al. 2004).

CHAPTER 3 METHODOLOGY

A review of the literature demonstrates that consumers generally associate organic labels and production claims (i.e., no antibiotics, raised outdoors, locally grown) on pork packaging with perceptions of quality in terms of taste and price/value (Dransfield, et al., 2005; Npago, et al. 2003; Grannis & Thimany, 2002). However, pork with production claims on the labeling may not be perceived by consumers as signaling quality, because the claims are often mistrusted and confusing (Npago, et al. 2003). The “all-natural” claim, in particular, has not been explored using focus groups, nor has it been explored in comparison to the organic label. The purpose of this study was to utilize focus group methods to describe consumers’ perceptions of pork products with an “all-natural” label and gather their reactions to marketing materials for these products.

After reviewing the literature, four research questions were developed as follows:

- **RQ1:** What are the perceptions of a representative sample of consumers toward the terms “organic” and “all-natural” in reference to pork products?
- **RQ2:** What are their reactions to the USDA organic standards for meat production and policy for natural claims?
- **RQ3:** What are their taste perceptions of all-natural pork products?
- **RQ4:** How do their taste perceptions affect their attitudes toward the price of all-natural pork products?

Design of the Study

This study was qualitative in nature, using focus group methodology to explore a sample of consumers’ perceptions of the terms “organic” and “all-natural” in reference to pork. A qualitative study was determined to be most appropriate to answer the research questions posed in this study. Qualitative studies intend to explore and describe complicated topics in rich detail.

They can be used to illustrate what has already been uncovered through quantitative methods or lay the groundwork for more rigorous investigation. In qualitative studies the researcher is the instrument, which allows for flexibility as unforeseen, related information emerges (Guba & Lincoln, 1989). Focus groups are one way to achieve the purposes and goals of qualitative research.

Focus group discussions create a process of sharing and comparing among the participants to provide the context and depth behind their thoughts and experiences (Morgan & Krueger, 1998). “Focus groups can provide insight into complicated topics where opinions or attitudes are conditional or where the area of concern relates to multifaceted behavior or motivation” (Krueger, 1994, p. 45). This type of research methodology is representative of reality because open-ended questions allow participants to respond in their own words. The focus group discussion format encourages interaction among participants and allows people to change their opinions based on discussion with other participants. The moderator also has flexibility to further probe unanticipated areas related to the topic that would otherwise not be discovered using a more structured questioning design. Focus groups have high face validity because the technique is easily understood and results are presented in an uncomplicated format (Morgan & Kreuger, 1998).

The conversations among participants in focus groups are particularly useful for understanding behavior and motivation. Focus groups may not always reveal deep motivational insights, but they can show that “people may be less logical, less thoughtful, and less organized than expected” (Morgan & Krueger, 1998, p. 58). The ability of the moderator to both direct and follow the discussion is useful to get participants to articulate their motivations, feelings, and

opinions. The participants also bounce ideas and questions off each other, allowing them to become more explicit about their own views.

Screening Process and Subject Selection

The University of Florida's Institutional Review Board approved this research study prior to the screening process and focus group meetings (Appendix A). A series of two focus groups were conducted in Gainesville, Florida, on July 15, 2006. In first week of July 2006, the University of Florida Survey Research Center recruited participants from Alachua County in north central Florida using standard random digit telephone dialing techniques. The screening questionnaire (Appendix B) used to identify participants for the focus group sessions emphasized the importance of potential participants' insights and opinions on the topic of all-natural pork. Questions were asked to ensure the participants would be familiar with food packages and also willing to engage in the taste-testing portion of the focus groups. The questionnaire identified people who were the primary purchasers of food for their households and meat (including pork) eaters. Questions about age, race, ethnicity, gender, and income were asked to ensure that groups were diverse. Participants were also offered a \$50 incentive as compensation for participating in the focus groups.

A total of 19 participants were recruited – nine for the first session and 10 for the second session. Morgan and Kreuger (1998) recommend over-recruiting to achieve an ample number of attendees. A personalized invitation was sent one week before the focus group session (Appendix C) and each participant was telephoned the day before the session to remind them of the session and determine if they would attend. These tactics emphasized the importance of their participation and helped increase actual attendance.

Instrumentation/Questioning Route

The questioning route (Appendix D) used in both focus group sessions was peer-reviewed by members of the Agricultural Education and Communication Department familiar with focus group procedure to ensure its quality and validity. Wording, structure, and order were carefully chosen to maximize effectiveness and to ensure unbiased language. Included in the questioning route was time to review and discuss a single-page handout listing the USDA’s organic standards and natural claims policy as they apply to meat (see Figure 3-1) in the same language available to and intended for consumers on its websites.

| USDA “Natural” Standards for Meat Products | USDA “Organic” Standards for Meat Products |
|--|---|
| <ul style="list-style-type: none"> ▪ No artificial ingredients ▪ No coloring ingredients ▪ No chemical preservatives ▪ Product and ingredients minimally processed (minimally processed means the raw product is not fundamentally altered, such as most fresh meat/poultry) ▪ Label must explain the use of the term “natural” (such as – no added colorings or artificial ingredients; no hormones) | <ul style="list-style-type: none"> ▪ Fed 100% organic feed ▪ Vitamin and mineral supplements allowed ▪ No growth hormones or antibiotics ▪ Vaccines allowed to keep animal healthy ▪ Producers may not withhold treatment for a sick or injured animal, but if the animal is treated with a prohibited medication (e.g., antibiotics) it may not be sold as organic ▪ Animals must have access to outdoors, but may be temporarily confined only for health reasons, safety, animal’s stage of production, or to protect soil/water quality ▪ Processing and packaging must be done in a way to prevent mixing the organic product with non-organic products and prohibited substances <p>The above standards set by the USDA National Organic Program apply to any farm or handling operation that wants to sell an agricultural product as organically produced.</p> |

Figure 3-1. Handout to focus group participants regarding USDA policies for organic and natural claims. Standards for “Natural” obtained from USDA Food and Safety Inspection Service (1999) “Natural and organic claims.” Standards for “Organic” obtained from USDA National Organic Program (2002a).

During the development of the questioning route, this was the only information available. Since then, the USDA Food and Safety Inspection Service (2006) redesigned its website pertaining to meat and poultry labels and included the information that “federal regulations prohibit the use of hormones” in pork production on the same page that defines the term “natural” (para. 18-19). The handout was designed so that it could be read relatively quickly and with ease to make certain the session stayed within the approximate two-hour time constraint. It was not provided until after an initial discussion of the terms “organic” and “all-natural” to ensure the information would not affect participants’ original perceptions.

Taste-testing was also incorporated into each focus group to obtain participants’ taste perceptions and to see whether or not tasting the product affected their price attitudes and willingness to pay for all-natural pork products. A survey feedback form (see Appendix E) was designed to gather each participant’s reaction to each pork sample before they discussed their reactions with the rest of the group. This was done to help the participants think about the taste of each sample and record their thoughts for discussion.

Procedure

On July 15, 2006, the researchers conducted two focus groups in Gainesville, Florida, with a total of 15 participants (seven in one session and eight in the other). Participants included eight females and seven males; ages ranged from 22 to 66, with white and African American ethnic representation. The ideal focus group size is six to ten participants because this size range provides enough difference in opinions to stimulate a discussion (Morgan & Kreuger, 1998). Two focus groups in the same setting is the minimum needed for validity. Each session lasted two hours and the moderator followed standard focus group procedures (Krueger, 1994; Morgan, 1997). The moderator used a structured questioning route to provide consistency between the two sessions (Morgan, 1997).

Each session began with explanations of the purpose of the focus group and brief instructions. Before getting into formal questions, general introductions encouraged participants to become comfortable in the group setting and also identified the characteristics the participants shared. Participants were first asked to provide information about their food and meat shopping behaviors. These questions were intended to promote conversation among all participants. Discussion then centered on participants' understanding of the terms "organic" and "all-natural" and then narrowed in on those terms in reference to pork products. Following unaided discussion questions, participants were provided a single page handout listing the USDA's organic standards and natural claims (Figure 3-1) to gather their opinions about the standards and policy for organic and natural labeled meat.

In the second half of each session, participants engaged in affective testing (one component of sensory evaluation or sensory analysis). The purpose of affective testing is to gather subjective data of the product being evaluated (Bopp, 1997). The first taste test was a comparison of an all-natural pork loin sample to a conventional pork loin sample. For the purpose of this study, "conventional" is used to describe pork products that were not produced in ways that would qualify them for all-natural or organic status. The all-natural pork used in consumer testing was natural pork (in accordance with USDA policy) from pigs raised outdoors, and produced with 1) no antibiotics or growth-stimulant hormones, 2) no meat by-products in feed, and 3) growers following an animal welfare protocol. Participants were only told they were comparing an all-natural pork sample to a conventional pork sample. This taste test was a double-blind taste test in that neither the participants nor the moderator knew which product was the all-natural pork.

Once both samples had been tested, the moderator asked participants to compare the two pork loins to determine which one they preferred and decide if there was a difference between

the two samples. After tasting each sample, each participant recorded initial reactions on a survey feedback form (Appendix E). Participants were then told by the chef which sample was the all-natural pork loin and the moderator asked for reaction. Following the comparison taste test, participants tasted all-natural ground pork and all-natural spare ribs with no comparison samples. Again, participants recorded initial reactions on a survey feedback form. Following each taste test, the moderator asked participants for their reactions about the products tasted.

The moderator then led participants in a price threshold exercise with four cuts of pork (loin roast, chops, ground pork, and spare ribs). For each cut, the moderator showed the price per pound for the all-natural product and the conventional product. Participants were then asked for their reaction to the price difference and how many would be willing to pay for the all-natural product (as it was always more expensive).

At the end of each session, the moderator briefly summarized the main points of the discussion, watching participant body language for agreement, hesitation, or confusion, and asked if the summary was accurate and allowed for comments and questions (Krueger, 1998). Before leaving, participants received \$50 compensation for their time and a package of the client's all-natural boneless pork loin. They were not aware they would be additionally compensated with the pork product until after the completion of session.

Data Collection

The focus group sessions were recorded using audio, video, and field notes. During the discussion, the moderator took brief notes and two assistant moderators took detailed notes, including body language and complete statements from participants. The assistant moderators and videographer remained unobtrusive to the focus group discussion. The moderator kept track of which participants were not speaking often and occasionally addressed them directly to elicit insights from all participants. This tactic also helped the more reserved participants become more

comfortable speaking. Video recordings offered further analysis of body language, tone, and caught audio for the few quotes that were unclear during audio cassette transcriptions.

Data Analysis

After each session, the assistant moderators and moderator collaborated in a debriefing discussion to be sure all of the main points were understood and recorded, and discussed reactions and key themes. This also helped identify differences between the two sessions. Sessions were transcribed and analyzed by using Glaser's (1978) constant comparative technique. Researchers looked for common themes, similarities and dissimilarities, observations of non-verbals, interactions, and reactions to product and price threshold stimuli. Transcripts were coded for themes, and categories created. As themes emerged, they were compared to existing categories to look for common relationships. New categories were created for distinct themes that did not fit existing categories.

Credibility, Transferability, Dependability, and Confirmability

Credibility in qualitative studies is equivalent to internal validity in quantitative studies. It involves how well the research accurately represented the insights and opinions of the participants (Ary, Jacobs, & Razavieh, 2002). This study achieved credibility through consensus by conducting peer debriefing with colleagues familiar with focus group methodology throughout the development, implementation, and analysis of this study. Colleagues were provided raw data and the researcher's analysis to corroborate findings. Focus group participant feedback was also elicited at the end of each session to confirm the accuracy of the main points. To control for bias in the analysis, the researcher conducted negative case sampling by looking for themes and examples opposite of expectations. For example, the researcher expects consumers to be uninformed about the USDA policy for all-natural labels, so by looking for examples of participants' knowledge of the definition of "all-natural" the researcher employs

negative case sampling. This technique “makes it more difficult to ignore certain information” (Ary, Jacobs, & Razavieh, 2002, p. 454).

Transferability is analogous with external validity in quantitative studies and refers to the generalizability of qualitative findings. The ability to apply this study’s findings to other groups of people in different places and at different times, depends on how well the findings fit with the other contexts. This study did not aim for generalizable findings. Instead, the goal was to understand the topic in-depth. The results of this study applied to different contexts will require judgments and comparisons by the potential user (Ary, Jacobs, & Razavieh, 2002).

Dependability is similar to reliability, but instead it addresses the consistency of the data analysis over time. The researchers met this criterion by using an audit trail, including original data analysis, codes, semantic relationships, and listing of all domains for verification and trustworthiness. The researcher also used the code-recode strategy by coding the data, leaving it for a period of time and then re-coding to match the two sets of coded material (Ary, Jacobs, & Razavieh, 2002).

Confirmability in qualitative studies is the same as objectivity in quantitative studies. “Qualitative researchers are concerned with whether the data they collect and the conclusions they draw would be confirmed by others investigating the same situation” (Ary, Jacobs, & Razavieh, 2002, p. 456). The audit trail, in which contains all data in raw form and clear notes on the printed transcripts, was the strategy used to meet this criterion.

In qualitative studies the researcher is the instrument, so it is important to acknowledge the researcher’s background, interests, and beliefs that have shaped this research. The researcher studies communication within the field of agriculture and is particularly attentive to the labeling and marketing of meat products. Once an organic foods shopper, the researcher is sensitive to

organic consumers' interests. Personal influences and knowledge acquisition about conventional agriculture production has since deflated the researcher's preference for organic foods. The researcher's continued interest in the organic and natural foods phenomenon sparked this exploration of consumers' perceptions surrounding these labels. Despite these beliefs, previous experiences, and background, the researcher kept these separate from the data collection and analysis to conduct credible research and allow the conclusions to emerge from results.

Summary of Methodology

The researchers used two focus groups in Gainesville, Florida, with participants who were the primary food purchasers for their household and pork consumers, and lived in Alachua County. Both groups were diverse demographically and each group contained at least one organic shopper. Each session was recorded using audio and video recording devices, while one assistant moderator took handwritten notes and the other typed notes during the sessions. Data were analyzed by looking for common themes, similarities and dissimilarities, observations of non-verbals, interactions, and reactions to product and price threshold stimuli. Transcripts were coded for themes, and categories created. All conclusions were peer reviewed by the research committee and appropriate strategies were used to address credibility, transferability, dependability, confirmability, and reflexivity.

CHAPTER 4 RESULTS

This chapter presents the findings of two focus group sessions. The purpose of this study was to describe consumers' perceptions of pork products with an "all-natural" label. To achieve this purpose, focus group discussions addressed 1) participants' perceptions of the terms "organic" and "all-natural" in reference to pork products, 2) participants' reactions to the USDA organic standards for meat production and policy for natural claims, 3) participants' taste perceptions of all-natural pork products, and 4) participants' attitudes toward the price of all-natural pork products as affected by tasting all-natural pork. Results are presented in order of the research questions in narrative format based on the participants' discussion.

Participants' demographics and reported food purchasing-related behaviors contribute to the understanding of the findings. Potential participants answered demographic questions during the telephone screening process and efforts were made to select for a diverse and representative group in terms of income, age, race, and gender (Table 4-1). The median household income in Gainesville, Florida is \$31,426 (Gainesville Facts, n.d.). Participants were also asked if they purchase organic or all-natural foods to ensure they would be familiar with these types of products. During the focus group discussions, participants were asked about their food purchasing behavior/preferences and food information sources. Each participant was given an opportunity to answer these questions to ensure everyone had provided their individual responses. Most participants shopped at the regional grocery chains Publix, Albertson's, and Winn Dixie. Some shopped at local independent grocers, including Wards and Hitchcock's. Few indicated that they shopped at national grocery chains, such as Sam's Club. Only three out of the 15 total participants considered themselves regular organic foods shoppers. Participants reported receiving their food-related information from a variety of media sources, including the Internet,

newspapers, magazines, ads, TV commercials, cooking shows, Food Network, magazines, samples in the grocery store, and televised news.

Table 4-1. Demographics of focus group participants

| Group | Participant | Age | Race | Income more or less than \$30,000 | Gender | Do you purchase organic or all-natural foods? |
|-------|-------------|-----|------------------|-----------------------------------|--------|---|
| One | 1 | 47 | African American | More | Female | Yes |
| One | 2 | 47 | White | Less | Female | Yes |
| One | 3 | 26 | White | More | Male | Yes |
| One | 4 | 37 | White | More | Male | Yes |
| One | 5 | 42 | African American | More | Female | Yes |
| One | 6 | 41 | White | More | Female | Yes |
| One | 7 | 66 | White | More | Male | Yes |
| One | 8 | 41 | White | More | Female | Yes |
| One | 9 | 26 | African American | More | Female | No |
| Two | 10 | 38 | White | More | Female | Yes |
| Two | 11 | 37 | White | More | Male | Yes |
| Two | 12 | 45 | White | More | Female | Yes |
| Two | 13 | 24 | African American | Less | Female | Yes |
| Two | 14 | 44 | White | More | Female | Yes |
| Two | 15 | 22 | African American | Less | Male | No |
| Two | 16 | 25 | African American | Less | Female | Yes |
| Two | 17 | 53 | White | More | Male | Yes |
| Two | 18 | 28 | White | More | Female | Yes |
| Two | 19 | 55 | White | More | Male | Yes |

Fifteen of the selected participants (Table 4-1) were in attendance for the focus group sessions, seven in the first and eight in the second. Based on moderator's and assistant moderators' observations, both groups were diverse in age range. The first group had one African American female, three white females, and three white males. The second group had one African American female, three white females, one African American male, and three white males. It is important to note that most selected participants indicated they do purchase organic or all-natural foods in the screening questionnaire to ensure they were aware of these food products. The question posed during the focus group discussion revealed a different answer

(most did not consider themselves organic shoppers) from the majority of participants, because it was phrased to determine if they considered themselves *regular* organic foods shoppers.

Perceptions of All-Natural and Organic

To explore this research question, participants were asked to define the terms “all-natural” and “organic” as associated with pork products. Themes discovered surrounding perceptions of “all-natural” were the mistrust or skepticism that all-natural means anything at all, the idea that all-natural means “no” (no hormones, no antibiotics, no chemicals, etc.), and the connection between all-natural pork and superior welfare for the pigs. Themes discovered surrounding perceptions of “organic” were similar to the “no” theme seen in perceptions of all-natural, but also included the perception that organic foods are healthier, “from the garden,” and more expensive.

Skepticism Surrounding All-Natural

The first group immediately expressed skepticism surrounding the term “all-natural,” while the second group expressed this shortly after initial responses indicating “no preservatives, no additives, no antibiotics” and “no fertilizer.” Although the majority of participants in both groups felt the term all-natural meant “not loaded with chemicals,” most expressed skepticism as to the validity of manufacturer claims in this respect. “I don’t think that anything is truly natural. I’m skeptical,” was a common response. Participants were not convinced all-natural means anything. “All-natural isn’t exactly what you think.”

Another related theme that emerged here was that the term might be a marketing or advertising ploy. A participant in the second group called the term, “a form of advertisement. I don’t believe it.” Participants in both groups, unaided, brought up that they did not know regulations for all-natural products. A typical statement was, “I know for organic there are laws, but I don’t know if there are any for natural.” Some participants in group two ultimately decided

that there were no guidelines for using the term “all-natural” on product labeling. “I don’t think they need guidelines for all-natural.” “Just like ‘diet.’”

All-Natural Means “No”

Despite their skepticism, participants in both groups had similar responses, indicating perceptions of the term “all-natural” as meaning “no” – no preservatives, no additives, no antibiotics, no hormones, no extra liquids in the meats, no phosphates, and no chemicals. According to a participant, “all-natural means it has less bad stuff.” Another remarked, “That it was a real animal.” Participants often qualified their statements about preservatives, additives, antibiotics, hormones, extra liquids, phosphates, and animal welfare in a negative tone, emphasizing that these are concerns for them. “So all-natural, to me, means that hopefully it’s not had hormones shot into it to make it fatter.” Participants said pork with this label designation would be fresher and “untreated.” One participant termed it, “All pig and nothing but pig.” All participants had negative reactions to use of chemicals, feeling all-natural conveyed less chemicals used in food production.

Some participants also expressed confusion about what the term meant, although that did not necessarily influence their overall perception of the product. Said one participant from group one, “Well I really don’t know what all-natural means. Sure it sounds good, and I would probably buy something that said all-natural over something that didn’t say all-natural.” Participants in this group all agreed with this statement.

With respect to meat and pork products and labeling, participants immediately brought up a local all-natural chicken producer, which participants perceived as having promoted its products as “no hormones, no antibiotics, no additives, no preservatives.” One participant summed up this theme, saying:

. . . Teach me, show me, that if you say, at Bob's Farm when we sell you our pork and it says all-natural, it means we didn't put a bunch of preservatives in it . . . it wasn't pumped full of water, and nothing was added, phosphates weren't added. Like that Sanderson Farms, the chicken people. I mean they say "oh, we don't have any phosphates." I don't know if phosphates are good for me or bad for me, but when they tell me they don't have any I start thinking maybe we should get that chicken.

All-Natural Pork Associated with Animal Welfare

Several participants focused on the connection between all-natural and livestock raised free range, particularly in group one. One participant said, "I think of Martha Stewart and the free range turkeys" in response to what comes to mind when they see the term all-natural on a package of meat.

They also associated the term with the idea that the pigs from which these products were produced would be small-farm raised, fed natural foods, and/or fed organic foods. A woman in group one said, "I would hope that what [the pig] was eating was a better quality. Like feeding your dog the Cheap Charlie instead of like Science diet." Another from this group said:

I would hope that it means fewer hormones and fewer antibiotics. I would hope that all-natural would mean that somebody's grandparents raised it on a farm somewhere rather than they were locked in a little metal cubbyhole where they couldn't turn around with a feeding tube in one end and an IV in the other side. Filling it full of things just to keep it alive long enough to get it to slaughter.

Organic Means "Healthy"

When asked to define what the term "organic" meant to them, participants in both groups had both positive and negative reactions. One participant in group two summed up the definition of organic foods by saying "[organic foods are] without chemicals, pesticides, hormone-free, from animals fed organic and not meat products, but may not look as pretty." All participants in both groups said organic means "no pesticides"; others said it also means "[livestock] weren't fed ground-up animals," and "vegetables haven't been wiped with vegetable oil and wax."

Some immediately thought of these foods as “tasteless” or tasting “like cardboard.” Participants in both groups said that organic “was better for you.” One woman commented, “I think that it’s probably better for you than all-natural.” Some participants in group one and all in group two said organic foods taste better, and all perceived these foods as “healthier.” Several members of both groups indicated that organic foods were very important to them. A man in group one said, “[Organic] means you don’t have to worry, this was raised by tested methods that are safe, healthy and natural.” Said another in group one, “Organic is really important to me. My wife and I grow organic tomatoes, but it’s difficult to make it organic, and it takes a while to do it because of pesticides and such. No pesticides is an important factor.” Other members of this participant’s group spent some time picturing tomatoes as representative of organic foods in which they would be interested.

When discussing their perceived criteria for all-natural and organic foods in group one, all participants agreed that these were “individual concerns.” One participant said:

I’m not that concerned, because after getting away from home-grown things, I figure something’s not going to be good for you no matter what you do. It’s great to take precautions, nothing’s 100%, and I think every shopper is going to be different about that.

Organic Equated with Produce

Participants in both groups identified organic as having more to do with food coming from the garden or “the earth.” Said one, “It’s very much more like what came out of your garden.” Participants typically referenced fruits and vegetables when discussing their perceptions of organic, an example being “I don’t care if all the tomatoes are uniform shape... I would like my tomatoes to taste like a tomato.”

Most participants equated organic food with produce; few considered the term organic as relating to meats. A common statement being, “I never thought of meat as being organic.” A participant in group one described organic in relation to all-natural as:

Basically a high-tech way of saying all-natural, but there's a little bit more to it. I think people are a little more aware of the process, where with all-natural we're not really sure what it actually means. In organic we know that it means no pesticides, but I can only equate that with vegetables. I never thought of meat as being organic.

Organic Foods Cost More

All participants perceived organic foods to cost more. Only one out of seven in the first group and two out of eight in the second group were organic shoppers, due to price considerations. Some indicated they sometimes buy organic vegetables, but not other products. Price was a factor for most participants, as well as differences in family members' food preferences. One woman in group two offered, "My husband doesn't care ...if he wants it, he'll eat it. But if I see two products on the shelf and they're the same price and one says all-natural or organic, I'll buy that. But if it's a two or three dollar difference, I'll buy whatever is cheaper." Said another in group one, "We try to buy the organic, but sometimes price enters the picture ...being that we don't have any children, most of the time we don't even bother."

Reactions to USDA Standards for Organic and Policy for Natural Claims

To gather participants' reactions to the USDA standards for organic meat production and policy for natural claims, they were provided a one-page handout listing this information from the USDA. The theme that emerged from the focus groups surrounding this objective was confusion and unanswered questions/concerns about the differences between organic and all-natural. Participants posed numerous questions throughout this part of the discussion.

Confusion Surrounding Differences between USDA Standards and Guidelines

Most participants in both groups said they did not understand the differences between the organic and all-natural labeling guidelines prior to reading the handout. A common statement was, "I kind of knew that organic was much more specific than all-natural, but I couldn't have

told you what all-natural included.” Participants in group one were particularly confused and all agreed they still had many unanswered questions after reading the handout.

Many questions were raised by participants in response to the handout, such as: “Now I’m questioning what is ‘artificial’ really?” “Do they put coloring in organic fruits?” and “Do I have to meet all of these guidelines [points to organic] and all of these [points to all-natural]?”

When discussing the differences between the two terms, one woman in group two said, “Seeing what natural doesn’t have, and what organic doesn’t have, doesn’t necessarily tell you what the other guys do have.” Another participant offered, “I buy a lot of chicken. So I usually see that packages that say all-natural and I pick it up. I’ve never really paid attention to the organic, but now I’ll pay more attention, I think.”

Participants in both groups brought up concerns for the animals’ welfare in response to the standards for organic, such as “concerned about the animals” and “the things I can’t see ...because I can’t go hang out at the farm it came from.” Another participant said:

What struck me the most was that ‘animals must have access to outdoors’ and they don’t mention that under the [all-natural standards]. So does that mean that they naturally confine all the animals, and otherwise, unless they’re raised organic, they’re kind of stuck in cages?

Participants in group one all agreed that if a product is organic it should also be all-natural, but that it is not clear from reading the handout. A common statement being, “To me organic should mean all-natural. Say ‘not only are we organic, but we’re also all-natural.’”

Group two brought up additional perceptions concerning their preferences for locally grown food and buying local, which was not addressed on the handout or by the moderator. “I think it’s important to think locally when you buy anything,” said one man from this group. An organic shopper said she prefers to buy produce even if it is not labeled organic at a local grocer because “they have the better quality food.” Many perceived local food (in particular, fruit and

vegetable produce) as fresher and better tasting. One man said, “In my opinion [locally produced food] is always better because it hasn’t been handled as much or shipped as far.”

Making the Information Clearer to Consumers

Participants were also asked to offer suggestions for ways to make the information about organic standards and natural claims clearer to consumers like themselves. The overwhelming response from both groups was to provide the information through advertising campaigns. Both groups referred to a recent local advertising campaign (participants referred to billboards and TV commercials) from Sanderson Farms, which, many said, was in terms they understand. A common suggestion for advertising campaigns was, “If we’re using an all-natural label, this is what you can be assured it means. It means we’re not pumping it full of X, Y, and, Z. You know that it was free range.”

Participants in group two suggested posting the information from the USDA in the grocery store in a manner that is quick to read and easy to understand. One woman said:

I have to read quickly. So if I’m looking for something that doesn’t have preservatives, doesn’t have chemicals, I need to see that fully. Because not only am I trying to compare prices and do math, I’m trying to keep a five-year-old from running three aisles away.

The participants all agreed that having a separate section or aisles for organic food is helpful. Since price typically came up as the dominant barrier preventing participants from buying organics, one man offered: “Post [the information] on the butcher counter so people can know why they’re paying more.”

Taste Perceptions of All-Natural Pork

To explore participants’ taste perceptions of all-natural pork, they moved to another room which had been set up with tableware and silverware. They then participated in a double-blind taste testing of an all-natural roasted boneless pork loin sample produced by a local company as compared to a similarly cut and prepared conventional product sample. The themes discovered

here were perceptions that all-natural boneless pork loin tastes better than conventional pork loin, differing taste expectations of all-natural pork, and differing taste preferences.

All-Natural Boneless Pork Loin Tastes Better

The all-natural boneless pork loin samples produced by Madison Farms All-Natural Pork and conventional boneless pork loin samples from a grocery store were prepared to the same internal temperature with no added ingredients. An objective observer ensured the two pork samples were prepared the same. Before the identity of the pork products was revealed, most in both groups said they could taste a difference between the two pork dishes. Both groups preferred the texture and flavor of the all-natural pork sample and said the conventional pork sample was drier, not as flavorful, and “mushier.” Typical comments from participants that fell under this category included the following: “The second one just doesn’t have the flavor the first one has.”

“The second portion just seemed to be a little bit more dense and dry.”

“I noticed mostly the texture, ‘cause I don’t like mushy meat. I think it should be kind of firm. So the second one tasted mushier.”

“Yes, I thought the first sample was moist and flavorful; even the skin portion that I ate was not greasy. And the second portion just seemed to be a little bit more dense and dry.”

Differing Taste Expectations

There was some difference between groups with respect to their perceptions as to which meat product was all-natural and which one was conventionally produced. Although both groups preferred the flavor and texture of the all-natural boneless pork loin sample, they differed in how they expected each type to taste. Before the identity of each sample was revealed, group one associated what they perceived as good taste with the all-natural pork and labeled the all-natural pork as all-natural when guessing which sample was which. Participants in group two noted a

difference in the leanness or fat content of the samples. Said one “I think that the first one had a little more fat, which I know is not good for you.” Group two associated poor taste and the seemingly leaner pork with all-natural and labeled the conventional pork as all-natural.

After the moderator told the participants which sample was which, both groups said they would buy the all-natural pork they had tasted. In the first group, a participant stated, “I would now buy all-natural. I would look for a label that says all-natural.” All participants in this group then concurred. Group one noticed a color difference between the two and said that the conventional one may have had artificial coloring added. Both groups noticed a difference in texture, attributing this to outdoor production practices. “Because the (all-natural pork) was firmer, maybe it’s because those pigs got to run around more and have more muscle” said one woman in group one.

Differing Taste Preferences

After the blind taste comparison, participants in both groups were given the opportunity to taste several other all-natural pork products and record and state their reactions. Participants tasted all-natural ground pork, and then spare ribs from the same company. Although most were not familiar with the company’s pork, and did not buy these cuts regularly, participants found this product appealing on several fronts. They found the ground pork to be “not fatty or greasy,” “less fatty than hamburger,” and “tastes just like pork,” although both groups thought it needed seasoning. The majority of participants in both groups liked and would purchase this product.

Participants had differing taste perceptions of the all-natural spare ribs. The participants said the ribs they tasted were too dry; however, both groups also noted that people have different taste preferences for ribs in terms of how dry they are. Three members of both group one and group two stated they liked the all-natural ribs. In the first group, the majority of members said they would buy it; however, no one made this claim in the second group.

A woman in group one explained that being from Louisiana, she prefers “a lot of flavor” in her pork. She often responded that the pork she sampled, specifically the ground pork and spare ribs, needed more spices and flavor to suite her taste preferences.

Unaided, the participants in group one brought up the generic pork marketing campaign, “Pork: The other white meat.” One woman said, “I remember they used to have those commercials saying ‘the other white meat,’ so I would look to see if [the pork] looks really white. So it looks sort of like chicken to me.” Several participants in this group noted the color of the all-natural boneless pork loin compared to the conventional boneless pork loin sample. One participant questioned if the conventional sample had added coloring to make it whiter in color.

Results from Taste Questionnaire

A survey feedback form (see Appendix E) was designed to gather each participant’s reaction to each pork sample before they discussed their reactions with the rest of the group. This was done to help the participants think about the taste of each sample and record their thoughts for discussion. The results from the brief survey forms differed from each group’s consensus, especially in group two. Overall, group one’s written comments were in agreement with their spoken comments about each sample of pork. The comments differed only in that most indicated their likelihood of buying the all-natural ground pork product as average, whereas during discussion all agreed they would buy this product. Group two demonstrated some major differences between discussion and survey feedback. Written comments from the double-blind comparison between the all-natural sample and convention sample indicated an equal number of positive and negative taste perceptions. When asked to compare the samples they had just tasted on the survey form, three indicated the conventional sample tasted better than the all-natural sample, three indicated it tasted worse, and two indicated it tasted the same. However, during

discussion all participants came to the consensus that the first sample or all-natural sample tasted better.

Taste Perceptions and Willingness to Pay for All-Natural Pork Products

To explore how participants' taste perceptions of all-natural pork affect their attitudes toward the price of these products, a willingness-to-pay exercise was conducted. The moderator used index cards marked with the price per pound of four cuts of pork (loin, chops, ground pork, and ribs), three of which participants had tasted. The moderator showed the prices for both all-natural and conventional products, and then asked participants about their willingness to pay. Themes that emerged here were, first, that tasting a product influences their willingness to pay a premium for all-natural pork products and second, that marketing how these products taste is important to get consumers to buy these products.

Taste Influences Willingness to Pay

Starting with the boneless pork loin, all participants in both groups (except for one in group two that preferred to buy meat from a butcher) said they would buy the all-natural product because they had tasted it and liked the taste. The per pound price differential on this cut was \$4.25 for the conventional product, as compared to \$5.69 for the all-natural product. Both groups also said that because they liked the taste, they didn't really care how much more it cost after comparing conventional to all-natural, although they did note the higher price. As one participant stated, "So I would pay it. And because it's all-natural. But it is quite a bit more." Said another, "I tasted it and I'd rather, honestly, I'm like I don't care how much more it costs, I would pay the \$5.69."

Both groups said taste is the key to convince people the product is worth the premium price. For this reason, both groups suggested a way to market this product would be to focus on using samples at the grocery store.

Both groups were willing to pay more for the all-natural ground pork product, finding the \$1.85/\$2.99 price differential not a barrier. With respect to the ribs, only three out of seven in the first group and two out of eight in the second group would pay the \$3.80 per pound for the all-natural product, as compared to the \$2.45 per pound for the conventional product. Finally, the moderator held up prices for loin chops, which the groups had not taste tested, to determine how taste affects attitudes toward price. The price per pound for conventional loin chops was \$3.85 per pound; for the all-natural product, \$5.99. Both groups said the price difference seemed too steep. Seven out of eight in group two and four out of seven in group one would not purchase the all-natural loin chops because it was too expensive.

The participants that defined themselves as regular organic foods shoppers were consistently willing to pay the premium for all-natural pork, with the exception of one woman in group two that indicated she would buy neither the conventional or the all-natural pork product. This participant said she would only buy organic pork from a butcher and never buys pre-packaged meat. None of the participants' mentioned their income as related to their willingness to pay a premium for all-natural pork products.

Summary

Overall, participants had positive association with the terms “organic” and “natural.” Participants associated “all-natural” with perceptions of animal welfare, higher quality feed, and no preservatives or chemicals in the final pork product and identified these perceived aspects as potential health and animal welfare risks. They also expressed confusion with respect to distinctions between all-natural claims and organic standards, and would like the information about these terms posted in grocery stores and clearly defined in advertising and labeling. In the affective testing of different all-natural pork cuts, personal taste preferences played a central role. However, taste expectations toward all-natural pork products differed between the two focus

groups. Group one expected all-natural pork to taste better than conventional pork, while group two expected all-natural pork to taste inferior. Participants said being able to taste the product influenced their intent to purchase and willingness to pay a premium for all-natural pork products.

CHAPTER 5 DISCUSSION

This chapter explains the key findings, conclusions, implications, and recommendations drawn from the results of two focus group sessions. The purpose of this study was to describe consumers' perceptions of pork products with an all-natural or organic label. To achieve this purpose, focus group discussions addressed the following objectives: 1) participants' perceptions of the terms "organic" and "all-natural" in reference to pork products, 2) participants' reactions to the USDA organic standards for meat production and policy for natural claims, 3) participants' taste perceptions of all-natural pork products, and 4) participants' attitudes toward the price of all-natural pork products as affected by tasting all-natural pork.

Key Findings

Overall, participants had positive associations with the term "all-natural." However, both groups initially expressed skepticism as to the validity of this claim on labeling and were not convinced it held any meaning or was regulated. Despite these doubts, participants associated "all-natural" with perceptions of no preservatives or chemicals in the final pork product, higher quality feed, and improved animal welfare and identified these perceived aspects as potential health and animal welfare risks. Similar perceptions and the absence of pesticides were also associated with the term "organic," but most equated the term with produce rather than meat. Participants revealed differing taste perceptions of organic foods, but all perceived these foods are healthier. In response to the USDA standards for organic livestock production and policy for natural claims, participants expressed confusion with respect to distinctions between the two terms and had many unanswered questions. They said they would like the information about these terms posted in grocery stores and clearly defined in advertising and labeling.

In the affective taste testing of different all-natural pork cuts, personal taste preferences played a central role. However, taste expectations toward all-natural pork products differed between the two focus groups during the double-blind comparison of all-natural boneless pork loin and conventional boneless pork loin. One group expected all-natural pork to taste better than conventional pork, while the other expected it to taste inferior. Participants said being able to taste the product influenced their intent to purchase and willingness to pay a premium for all-natural pork products. Participants who preferred the taste were more willing to pay a premium for the all-natural pork products.

Conclusions

Perceptions of All-Natural and Organic

Participants had positive perceptions of both organic and all-natural pork products, with some exceptions regarding taste, price, and trust in the information source, which are consistent with factors that typically dissuade consumers from purchasing organic products (Yiridoe, et al., 2005; California Institute for Rural Studies, 2005).

Perceptions surrounding all-natural

Participants perceived the use of the term “all-natural” on pork packaging as a gimmick or marketing ploy. Frewer, Howard, Hedderley, and Shepherd (1996) point out that trust in information from industry sources (such as marketing and labeling) is hindered by perceptions of selfish, economic interests. Many did not believe the government regulated the use of this term and were thus skeptical of its meaning or claims on packaging labels.

As found in a survey study about consumer perceptions of all-natural beef (Diel & Associates, 2001), participants associated no hormones and no antibiotics with their perceptions of all-natural pork. However, these focus group discussions brought out additional perceptions participants associated with all-natural pork, including hogs that are raised outdoors, fed higher

quality food, and no use of preservatives or chemicals in the final pork product. Participants also revealed that they do not understand why or how particular additives in meat are bad for them, but when marketing makes claims about not having additives, they are more inclined to buy that product or favor food products with the “no” labeling theme.

The “no” labeling theme participants related to all-natural pork products also revealed insights into their risk perceptions associated with pork production and consumption. In terms of potential risk to their health, participants brought up chemicals (both from production and processing), additives, hormones, and antibiotics. However, participants never qualified or quantified these perceived risks. This is consistent with Slovic’s (1987) risk analysis theory in that laypersons’ perceptions and analysis of risk are based on perceived control and understanding of the risk rather than probability or severity of its occurrence. Most participants reported obtaining their food-related information from various media sources, which may be why they did not understand the risks they perceived (additives, chemicals, hormones, etc.). Frewer, Raats, and Shepherd (1993) found that the media focus on the unknown when communicating food risk. Food additives, in particular, are reported as heuristically bad. Also, dependence on the media, predominantly newspapers and television news, for food safety information is correlated with greater food risk perception (Tucker, Whaley, & Sharp, 2006).

The absence of perceived risks associated with all-natural pork products can be considered one of several perceived product attributes that has a functional consequence in terms of consumers’ life values, such as physical well-being and ethical treatment of animals. Based on Gutman’s means-end theory (1982), the perceived attributes of all-natural pork products, such as no antibiotics, no growth hormones, no chemicals, and improved animal welfare, may translate into fulfillment of life values. Most of the same perceived attributes and values from Bech-

Larsen and Grunert's (1998) means-end chain research (Figure 2-1) with Danish consumers perceptions of organic pork surfaced during these focus group discussions about all-natural pork. Based the similarity of perceived attributes, participants likely associated the perceived attributes of all-natural pork with their life values of good health, ethical treatment of animals, and family security.

Perceptions surrounding organic

Participants' perceptions surrounding "organic" differed on whether or not these foods tasted better than their conventional counterparts. However, all agreed that organic foods are healthier. This is consistent with previous research with regular organic consumers who often list higher nutritional value as a reason to purchase organic food. However, no scientific evidence has shown a difference in nutritional content between organic and conventional foods (Kouba, 2003). Participants also expressed willingness to compromise on the physical appearance of produce for the perceived healthier organic version as these foods look "more like what came out of your garden."

Most participants did not equate "organic" with meat, saying, "I never thought of meat as being organic." Although the discussion was focused on organic pork, participants equated organic more to fresh produce, particularly tomatoes. This may be due to the limited availability of organic meat products in supermarkets. Meat was not allowed to be labeled organic until a provisional label was approved by the USDA in 1999, whereas organic gardening dates back to the 1950s (Dimitri & Greene, 2002).

Despite positive perceptions surrounding organic foods, the price of organic foods was an inhibiting factor for most participants' desire to purchase these products. Most would prefer to buy these products, but if the premium is more than the value they perceived, then they said they will buy "whatever is cheaper." This study and others agree that price of organic foods is

consistently a barrier for consumers who wish to purchase these products (California Institute for Rural Studies, 2005).

In general, participants' attitudes toward all-natural and organic pork were based on beliefs associated with the absence of risk to their health and the improved welfare of the hogs in the production and processing of those products. The perceived risk factors were similar to those cited by organic consumers (Hammitt, 1990).

Reactions to USDA Standards for Organic and Policy for Natural Claims

After reading the handout with the USDA standards for organic meat production and policy for natural claims, participants were surprised to learn that “there’s a big difference.” They admitted that they were generally unaware of the differences between the organic regulations and natural labeling policies.

Before receiving the handout participants perceived the term “all-natural” to be a catchall term not only meaning no chemicals and no additives, but also meaning no antibiotics, no hormones, and raised outdoors. A study exploring consumers perceptions’ of the “naturalness” of organic farming in the Netherlands discovered that high standards of animal welfare were associated with the naturalness in the production methods of meat (Verhoog, et al., 2002, p. 37).

Although participants expressed distrust in claims used on food packaging, they did not express distrust in the USDA organic standards and natural claims on the handout. In the United States, trust in government food regulators is high (Roe & Teisl, 2007; Waarden, 2006; Taylor, 2003).

Participants had numerous unanswered questions in response to the USDA organic standards for livestock and policy for natural claims. It was clear the USDA definition for all-natural did not corroborate with the participants’ definition of the word on meat packages. Most

said that if a product is organic it should also be natural, but that was not evident in the USDA standards and policy.

The participants in these focus groups said that the information about the differences between these two terms would be clearer through advertising campaigns and consumer education in grocery stores. Many were able to provide examples of recent advertising campaigns for natural and all-natural foods, such as Arby's, Wendy's, and Sanderson Farms. Sanderson Farms was cited as particularly effective, because the television ads and billboards communicated examples of what the term "all-natural" means on their chicken products. Participants also suggested posting the USDA standards for organic production and policy for natural claims information on the butcher counter in a quick and easy-to-read format in grocery stores, so consumers could understand the differences and potentially understand why they have to pay more for these products. Another suggestion was to separate all organic food into its own section of the grocery store, so consumers do not have to search for it.

Taste Perceptions of All-Natural Pork

Personal preference plays a large role in taste perceptions (Risvik, 1994). Some participants expressed differing preferences for moistness, texture and flavor, and that influenced their reaction to the taste of the pork product samples. Previous experience with the cuts of pork may also have influenced their taste perceptions (Cardello, 1995a).

All participants in both groups perceived a difference in flavor and texture between the all-natural and conventional pork loins in the double-blind taste test, preferring the all-natural pork loin. Participants were aware they tasted an all-natural pork loin and a conventional pork loin, so they were anticipating a difference. The anticipation may have amplified their perceived differences. Previous studies conducted with trained taste panels vary in their findings of sensory differences between organic and conventional foods (Dransfield, et al., 2005; Fillion & Arazi,

2002; Jonsäll, et al., 2002). Studies pertaining to taste differences in pork products indicate either no difference between organic pork and conventional pork, or inferior eating quality for organic pork (Scholderer, et al., 2004; Edwards, 2005).

Interestingly, participants had different preconceived notions of how all-natural food would taste, which influenced how they evaluated the provided samples. Group one associated good flavor and texture with the all-natural product, but group two associated the leaner and less flavorful sample with the all-natural product. This suggests that a segment of consumers may perceive all-natural meat to taste better, while another segment may perceive it to taste inferior to conventionally produced products.

The written comments and results from the brief taste survey forms (Appendix E) differed from each group's consensus during discussion, especially in group two. This is the nature of group dynamics in focus group methodology and also what occurs in a naturalistic setting. Perceptions are shaped not only by personal experiences, but also by interactions with others. The focus group discussion format encourages interaction among participants and allows people to change their opinions based on discussion with other participants (Morgan & Kreuger, 1998).

The group dynamics of the focus group sessions may also have played a role in each group's discussion. Group one had *two* self-proclaimed regular organic foods shoppers, whereas group two only had *one* self-proclaimed regular organic foods shopper. The single regular organic shopper in group two also considered herself a whole foods shopper in addition to a regular organic shopper. She had negative perceptions of pre-packaged, labeled meat and said she only buys meat from a butcher. Her opinions did not have as much influence on the group the two participants in group one did. The two organic shoppers in the first group were vocal and expressive during the discussions, which may have led to group-think, especially during the

double-blind taste test portion of the session. These participants were influential during the taste testing portion, because they had positive taste expectations for all-natural pork. One of these regular organic shoppers said, “organic food tastes better” during the discussion of the term “organic.” These participants held strong convictions in their positive perceptions of organic and all-natural foods and may have influenced the other participants’ conversations because of that.

Willingness-To-Pay as Influenced by Taste Perceptions

Intent to purchase all-natural pork products relied heavily on the fact that participants had tasted the products. The majority of participants said they were willing to pay more for some all-natural pork products because they had preferred the taste of them. Both groups were willing to pay more for the all-natural pork loin and ground pork, because the price differential was not a barrier to them and they liked the taste of these products. Even though the \$1.44 price difference between the conventional and all-natural boneless pork loin seemed high to the participants, they were willing to pay that premium because they had preferred the taste. Bredahl and Poulsen (2002) found that perceptions of high-quality pork are predominantly affected by its taste. The researchers also discovered a perceptual link between production method and pork quality, where consumers perceived pork labeled as from pigs raised outdoors to be of higher eating quality than pork from pigs raised indoors.

Participants were decidedly split on their willingness to purchase all-natural ribs and all-natural loin chops. Several participants said the all-natural pork chops were too expensive compared to the conventional pork chops. In regards to the spare ribs, some revealed that they do not typically buy spare ribs in the grocery store, because they do not know how to prepare them or do not want to pay for the bone weight. In the end, the split willingness to pay a premium for these products was due to personal taste preferences and differing price-value attitudes. Models

of price, quality, and value explain that perceived value affects how consumers view the quality of a product and whether or not they will purchase it (Ziethaml, 1988).

The participants that defined themselves as regular organic food shoppers were consistently willing to pay the premium for all-natural pork products when given the choice between conventional and all-natural pork products. This is consistent with the role of self-identity and the role of past behavior in the theory of planned behavior (Bentler & Speckart, 1979; Sparks & Shepherd, 1992). The regular organic foods consumers seem to be willing to pay a premium for all-natural labeled pork, because it has become a central aspect of their self-concept or a habitual behavior. However, a different conclusion may have been made if participants were given the option to choose between conventional, all-natural, and organic pork in the willingness-to-pay exercise. This research shows that all-natural pork is appealing to self-proclaimed regular organic foods consumers. This segment is consistently willing to pay a premium for these products if given the choice between conventional and all-natural pork products.

Implications

Perceptions of All-Natural and Organic

The variation in pork producer-set standards for all-natural and consumer confusion about the meaning of the term is reminiscent of the patchwork of state and regional standards for organic prior to the implementation of the National Organic Program (Fetter & Caswell, 2002). One package of pork labeled as “all-natural” may only refer to the processing, as USDA policy stipulates, while its shelf neighbor may use it to refer to various production techniques as well. Understandably, producers want to use legitimate production/process claims to capture a piece of the high-dollar market for such products. However, coupling those claims with the term “all-natural” has led to consumer confusion surrounding all-natural as demonstrated in this research

and in Diel & Associates (2001) research with natural beef products. Another contributing factor is that the concept of natural and naturalness is regularly used by producers, marketers, and consumers of organic foods to characterize organics (Verhoog, Matze, Lammerts Van Bueren, & Baars, 2002). This conceptualization of organic as natural has also blurred the distinction between organic and natural labeling. Participants in these focus groups perceived all-natural pork to be from hogs that are raised outdoors without the use of antibiotics and growth hormones, fed higher quality food, and no use of preservatives, additives, or chemicals in the final pork product. The results of this research implies that consumers perceive the term “all-natural” as encompassing production practices integral to the organic standards.

The only prominent differing perceptions between organic and all-natural was that organic also means no pesticides, is regulated by the government, costs more money, and is associated more with produce rather than meat. Consumers’ attitudes toward all-natural and organic pork are based on beliefs associated with the absence of risk to their health and the improved welfare of the hogs in the production and processing of those products.

The intense marketing and premiums associated with organic and all-natural food products may be leading consumers to believe they have to pay a higher price for safer food. Participants perceived chemicals (both from production and processing), additives, hormones, antibiotics, and pesticides as risks to their health. Consumers may not understand how or why these are risks, but are more inclined to favor or purchase foods with the “no” labeling theme. Organic and all-natural are product attributes that consumers have come to value. These value perceptions may lead to increased market diversity as more niche products emerge to fulfill consumers’ needs. Consumers have more choices with the increasing prevalence of organic and niche market food products in grocery stores. When there was only one choice, consumers were willing to accept

more uncertainties and a lack of understanding about meat production to a greater degree, because the benefit of nourishment outweighed those factors. The emergence of organic, all-natural, and other production/processing claims on meat packages seems to have led consumers to question the quality, value, and safety of cheaper, conventional meat products. However, the perceived value in all-natural labeled meat is minimal if not compounded with other factors, such as price, taste, and an understanding of how these products are different or better.

Participants did not understand exactly why organic and all-natural products are more expensive, indicating the supposed value of these products has not been clearly communicated. Unless the participant considered themselves a regular organic food shopper, most would not purchase these products if they cost more than approximately \$1.00 over the conventional counterpart. Although most participants perceived conventional pork as containing the risks organic and all-natural products claim not to have, the risks are not alarming enough to prompt them to pay a premium for those products. Communicating the value of these products may rest on the ability of marketers to show industry accountability in producing organic and all-natural meat products. Accountability “has been defined in terms of being answerable to audiences for fulfilling obligations, duties, and expectations” (Sinclair & Irani, 2005, p. 61). Consumers want to see what they are paying for; as one woman put it, “I’m concerned about the things I can’t see ...because I can’t go hang out at the farm it came from.”

These focus groups brought out consumers’ risk perceptions surrounding pork production and consumption. It may be the case that the prevalence of the “no” labeling themes (no antibiotics, no growth hormones, no preservatives, etc.) associated with all-natural and organic meat products has inadvertently communicated to consumers that the aspects that these products do not contain are harmful to people’s health and livestock’s well-being. By default, consumers

may believe that conventional or unlabeled meat products contain these perceived risks, which could potentially lead to the devaluation of these products in a market where they become the “cheap” or “generic” products.

The USDA Food and Safety Inspection Service updated its website in August 2006 to include a page defining production and processing claims, including organic and natural, on meat and poultry packaging. As a result of this update, the information is easier to find. However, the language used on the site is still the same as used on the handout provided to the focus group participants. Consumers perceive all-natural and organic to be very similar, but the USDA defines the two terms to be quite different from each other. Consumers may not be inclined to research the definition of these meat and poultry labeling claims. Participants in these focus groups did not mention the Web as a place or communication medium that would effectively reach most consumers like them. A better understanding of organic and all-natural could increase consumers’ confidence in the integrity and value of these products.

Participants’ lack of understanding of the difference between all-natural and organic, and the perceptions of fewer food risks associated with these labeling terms suggests a major knowledge gap between experts and consumers. Klonsky and Tourte (1998) assert that the organic label is not meant to differentiate those foods as safer, but unintentionally it may have. As the results of this study suggest, all-natural and production technique claims may also be differentiating those foods as safer.

Taste Perceptions and Willingness to Pay for All-Natural Pork

Participants perceived a minimal amount of value in the term “all-natural” in isolation, but certainly favored and were willing to pay a premium for all-natural pork products if they preferred the taste. Perceptions of the taste of pork are affected by a number of factors including previous experience, personal preferences, ethnic/cultural background, and the pork’s appearance

and preparation. Participants in these focus groups were influenced by the National Pork Checkoff's "Pork: The other white meat campaign." As a result of this campaign, consumers prefer pork products to be white in color when cooked.

Being able to taste the all-natural pork product was an important factor to motivate consumers to purchase the product. As a result of trying the product, participants were able to experience the consequences without the investment, thus reducing the perceived risk in the consumer decision-making process. Through experiencing both intrinsic (taste) and extrinsic (labeling, marketing) attributes, the quality of a food product is seemingly easier for consumers to evaluate (Zeithaml, 1988).

Scholderer et al. (2004) found that consumers have high taste expectations of pork labeled "organic" or "free range." This study indicates that expectation may not always be the case. One segment of consumers may perceive organic and all-natural pork to taste good while another segment may perceive it to taste inferior or "healthy" (not flavorful). Participants in the group that expected all-natural pork to taste poor predicted the perceived drier and seemingly leaner conventional sample to be the all-natural pork. The negative taste stigma seems to be related to the perception that all-natural pork products are healthier and leaner than conventional pork products.

Recommendations

Practice

This research yields recommendations for practice, as well as future research. Based on the conclusions and implications of this study, agricultural communicators, educators, and extension agents need to communicate the reasons for and the differences between the organic label and natural claims, especially if they are only meant to be marketing labels and not discern them as safer. Participants perceived these products as absent of risk to their health and animal welfare.

The market for conventional agricultural products could be negatively impacted if consumers do not understand why organic and all-natural labeled foods are supposedly better or why they cost more money. If organic and all-natural labeled foods continued to be perceived as the safer food choice, the market for conventional foods could potentially suffer. Labels are used by the USDA to balance the market for agricultural products, so this organization is the decision-maker when it comes to food labels. The USDA would be a credible resource for information about the reasons for all-natural and organic food labeling, because the study participants perceived information from industry and marketing sources as marketing ploys.

Communication about the organic label and natural claims needs to go beyond a website. Agricultural communicators should consider websites as a small part of a larger effort to reach consumers with information about organic labels and all-natural claims. The efforts to inform consumers about the use of these terms must be strategically available since they are unlikely to pursue this information on their own. Participants recommended posting this information in grocery stores in a separate organic foods section of the grocery store or near the butcher counter.

Participants could not clearly differentiate between all-natural and organic. All-natural, in particular, was not regarded as a credible or regulated claim on meat labeling. Producers and marketers could continue to take advantage of these misperceptions, or policy makers could step in and rewrite the policy for natural claims. The policy could add some of the common perceptions of the term, such as no antibiotics, no growth hormones, and livestock raised outdoors.

Regardless of whether the USDA steps in to make some of these recommended changes, agricultural communications professionals need to focus on communicating the meaning of all-

natural claims in a manner that consumers can quickly receive and easily understand. Participants in both focus groups said they would prefer this information in advertising campaigns. In particular, they preferred specific examples of what is and what is not in pork products with all-natural labels. It is strongly recommended that the meaning of all-natural be closely tied to the brand or producer, so when a consumer buys that brand they feel assured that “all-natural” always means what the marketing states. In order for consumers to perceive value in all-natural claims, demonstrating accountability is important. Agricultural communicators and marketers should communicate how producers’ production and processing practices ensure the safety and quality of the food. Demonstrating that producers go above and beyond what laws and regulations require of them would increase perceptions of accountability.

The majority of consumers are probably unaware that growth hormones, one of the top perceived food risks in the United States (Hwang, Roe, & Teisl, 2005), is prohibited in pork and poultry production. However, niche pork producers continue to attempt to add value to their products by identifying “no hormones” on the label and it is now an aspect perceived integral to the meaning of “all-natural” as brought up in these focus group discussions. It may be the case that this type of marketing is perpetuating this perceived risk. The study participants were confused about the exact meaning behind all-natural labeling claims. They emphasized the importance of educating consumers like themselves about all-natural and organic labeling on meat products in order to communicate the value and quality of these products and increase perceptions of credibility for such claims. Arguably, the same needs to be done for meat production in general, regardless of the claims or labeling the producer qualifies for or uses. Demonstrating producers’ commitments to ensuring meat quality and safety will be important to protect the market for unlabeled or conventional meat products. Agricultural extension agents

and family, youth, and consumer science extension agents have an important role to play in working together to continually educate consumers about meat production and labeling. These efforts are important to maintain credibility in food labeling and claims.

Agricultural extension agents should use the results of this study to help pork producers identify aspects of their production techniques that would add value to their products. The focus groups participants perceived value in several production and processing techniques that increased their perceptions of quality in pork products. Extension agents should also provide this information to pork producers seeking to enter niche markets, so that they may develop production plans and effective marketing strategies.

As Jaeger (2006) found, it is valuable to integrate taste in marketing communications strategies. An implication for agricultural marketers is that the success of communications aimed at marketing niche food products may rest on the ability to include product sampling strategies while appealing to consumers' taste perceptions with marketing materials. Participants indicated that tasting the all-natural pork was the most important factor to convince them to pay a premium for it and purchase it. Based on the results of this study, food marketers should consider integrating point of purchase sampling, or developing labeling and marketing materials that appeal to and emphasize how the product tastes. Lighting, shelf placement, display, packaging, photos of the prepared product, and recipes are all possible ways to appeal to consumers' senses in the grocery store.

It is important to note that personal taste preferences and previous experiences with pork influence perceptions of taste. The sample all participants had obvious positive taste perceptions for was the all-natural boneless pork loin sample. They were split on taste preferences for the all-natural spare ribs and many had not had ground pork outside of the focus group session. Using

boneless pork loin cuts in point-of-purchase sampling may be most effective to appeal to as many consumers as possible. Participants also said they would be more likely to buy the pork they taste in the grocery store if they are given a recipe and/or coupon.

Future Research

The intention of this research was to explore perceptions and opinions of the sample audience in detail. Based on the results of this study, more studies are needed to examine consumers' perceptions of the terms "organic" and "all-natural," especially in the area of meat production and processing. The participants in these focus groups had some preconceived notions about the terms, but could not clearly differentiate between them. It would be beneficial to replicate this study in other parts of the United States. Quantitative studies also need to be developed on a larger scale to make the results generalizable to United States consumers.

Participants in this study revealed insight into the absence of perceived food risks associated with all-natural and organic pork. More studies are needed to determine if similar perceptions emerge surrounding other agricultural commodities. Further research should investigate causality between food production and processing labels, such as organic and all-natural, and perceptions of risk. Other studies should examine consumers' trust in the USDA since risk perceptions are closely related to perceptions of trust. Another related area to examine would be the USDA's public relations and consumer education efforts. Participants vaguely knew what organic and all-natural meant on meat labeling and also indicated that they did not believe that "all-natural" was regulated by the government.

The study participants indicated that they get their information about food from various media sources. However, this question was asked to prompt discussion among participants about the topic and was not pertinent to the purpose of the study. Future research should investigate

where they get information about meat production and processing specifically, and how the media frames natural and organic foods.

One of the recommendations for practice, in regards to marketing all-natural pork products, is to develop marketing materials that appeal to the taste senses. After all, point-of-purchase sampling is not always feasible for marketers to do within budget. What else, besides actually tasting a food, triggers and appeals to consumers' palate? Future studies should explore the effectiveness for various marketing tactics and communication materials that emphasize how the all-natural pork product tastes. More studies are needed to explore agricultural communications strategies for all-natural meat products and determine whether or not the strategies enhance consumers' understanding.

Pork producers' perceptions of using the term "all-natural" on pork product labels should also be explored in future research. Do they believe its use adds value to their products? Exploring their decision-making process for using particular production practices and making those claims on labeling would complement the results of this study. The results of this study could be used to develop in-depth interview questions or surveys to reach a sample of producers.

Future studies should triangulate data from related populations, such as restaurant owners and chefs, because they influence the available food choices for consumers. Understanding food professionals' perceptions of the use of natural and organic pork in restaurants would demonstrate the perceived value of these products in the restaurant setting.

Summary of Conclusions, Implications, and Recommendations

Participants generally had positive perceptions of both organic and all-natural pork products, with some exceptions regarding taste, price, and trust in the information source. In regards to "all-natural" specifically, participants expressed skepticism as to the validity of the manufacturer's claim and perceived its use as a marketing ploy. Food marketers would benefit

from creating advertising campaigns that clearly tie the producer's definition of all-natural to the brand name. Participants recalled recent marketing campaigns for all-natural meat products and said that examples of what was and what was not in their products helped them remember those brands. If the producer is going above and beyond the government standards for natural claims, emphasizing that in marketing would increase the brand's credibility, accountability, and positive reputation.

The only obvious differing perceptions between organic and all-natural was that organic also means no pesticides, is regulated by the government, costs more money, and is associated more with produce rather than meat. All-natural and organic pork products were perceived as absent of risks to human health and animal welfare. Agricultural communicators at the USDA need to better communicate about their meat production and processing labeling policies and regulations. Policy-makers at the USDA should also revise the policy for natural claims to increase consumer confidence in the use of such claims on meat and poultry packaging. Participants perceived the term "all-natural" as pertaining not only to some meat processing aspects, but also to livestock production practices integral to the organic standards. The policy should prohibit the use of antibiotics and hormones and require livestock to have access to outdoors, or make the distinction between organic and natural/all-natural more clear.

Good taste is highly regarded in judging the quality of all-natural pork and convincing consumers that it is worth a premium. It may not always be the case that consumers expect all-natural pork products to taste good. Group two of the focus group sessions expected all-natural pork products to taste inferior to conventional pork. Communicating good taste is important to attract those who have negative taste expectations. Participants said it is important to emphasize

these products' taste either through point-of-purchase sampling or through marketing messages that focus on appealing to taste.

The fundamental importance of good taste is salient among consumers' perceptions of high-quality pork worth a premium price, like all-natural pork products. Participants clearly perceived value in other perceived attributes of all-natural pork, but doubted the credibility of all-natural claims on package labeling. Emphasizing taste, communicating accountability, and clearly differentiating all-natural pork from other pork products is important to increase perceptions of value and credibility in the use of such claims. Agricultural communication and marketing strategies incorporating these factors would be well-received if they demonstrate accountability to consumers' perceptions of these products and how the brand or producer is achieving consumers' quality expectations.

APPENDIX A
IRB APPROVAL



Institutional Review Board

FWA00005790

98A Psychology Bldg.
PO Box 112250
Gainesville, FL 32611-2250
Phone: (352) 392-0433
Fax: (352) 392-9234
E-mail: irb2@ufl.edu
<http://irb.ufl.edu>

DATE: June 28, 2006

TO: Traci Irani, PhD
213 A Rolfs Hall
Campus

FROM: Ira S. Fischler, Chair *ISF*
University of Florida
Institutional Review Board

SUBJECT: Approval of Protocol #2006-U-0606

TITLE: All-Natural Pork Focus Group

SPONSOR: None

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants. Given your protocol, it is essential that you obtain signed documentation of informed consent from each participant. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for the research.

It is essential that each of your participants sign a copy of your approved informed consent that bears the IRB approval stamp and expiration date.

If you wish to make any changes to this protocol, *including the need to increase the number of participants authorized*, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

If you have not completed this protocol by **June 28, 2007**, please telephone our office (392-0433), and we will discuss the renewal process with you. It is important that you keep your Department Chair informed about the status of this research protocol.

ISF:dl

Informed Consent

Protocol Title: All-Natural Pork Focus Group

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study: The purpose of this study is to discuss all-natural pork products.

What you will be asked to do in the study: The focus group will allow you to discuss your opinions in an open and receptive setting. You will be asked to share the things you consider when purchasing pork. You will also taste some prepared pork and provide feedback on your experience. Your comments and suggestions will be used to determine the market for all-natural pork.

Time required: The session will last no more than two hours.

Risks and Benefits: There are no anticipated risks or benefits to participating in the study.

Compensation: You will be paid \$50.00 compensation for participating in this focus group.

Confidentiality: Your identity will be kept confidential to the extent provided by law. You will be assigned a code number. Your name will not be connected to any comments. The list connecting your name to this number will be kept in a locked file. The discussion will be audio- and video-tape recorded. An assistant moderator will take detailed notes. Only the researcher and research assistants will have access to the tapes, notes, and transcripts. They will be kept in a locked file. When the study is completed and the data have been analyzed, the list and the tapes will be destroyed. Your name will not be used in any report.

Voluntary participation: Your participation in this study is completely voluntary. There is no penalty for not participating.

Right to withdraw from the study: You have the right to withdraw from the study at anytime without consequence.

Whom to contact if you have questions about the study: Dr. Tracy Irani, Associate Professor, Department of Agricultural Education and Communication, 213A Rolfs Hall, (352) 392-0502, ext. 225, irani@ufl.edu

Whom to contact about your rights as a research participant in the study: UFIRB Office, Box 112250, University of Florida, Gainesville, FL 32611-2250; ph 392-0433.

Agreement: I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant: _____ Date: _____

Principal Investigator: _____ Date: _____

Approved by
University of Florida
Institutional Review Board 02
Protocol # 2006-U- 0606
For Use Through 06/28/2007

APPENDIX B
ALL-NATURAL PORK FOCUS GROUP SCREEN QUESTIONNAIRE

Hello, my name is %name and I'm calling from the Florida Survey Research Center at the University of Florida. The Institute for Food and Agricultural Sciences, IFAS, at the University of Florida will be conducting focus groups in Gainesville on Saturday, July 15, and we're currently recruiting participants. May I please speak to the person in your household who is at least 18 years old and responsible for purchasing food and groceries?

The focus group will take about an hour and a half to complete and participants will be paid \$50 for their time.

1. Are you interested in hearing more about this research project? [YNDR]

IF NO: Terminate, Do not save. "Thank you. Have a nice evening (day)."

IF YES:

The focus groups are being conducted to find out people's opinions and perceptions of all-natural pork. It's not a requirement that you've eaten all-natural pork in the past, but you do need to be someone who purchases food for your household and who eats pork, at least occasionally. You'll be ask to taste several pork dishes during the focus groups.

The focus groups will be held at the Florida Farm Bureau, on SW 34th Street in Gainesville, on Saturday, July 15, at 10:30AM and 1:30 PM. Light refreshments will be served, as well as all-natural pork, and a \$50 stipend will be paid to those who participate.

2. Do you have any dietary restrictions, or religious or personal beliefs that preclude you from eating pork? [YNDR]

IF NO: Terminate, Do not save. "Thank you, but this research only involves consumers who eat pork at least occasionally. Have a nice evening (day)."

IF YES:

3. Are you interested in being considered for participation in one of these focus groups? [YNDR]

IF NO: Terminate, Do not save. "Thank you. Have a nice evening (day)."

IF YES:

Thank you. I'll need to ask you a few demographic questions so that we can be sure that participants are representative.

4. Do you live in the Gainesville area? [YNDR]

5. What is your 5-digit zip code? [#, DR]
6. In what year were you born? [year, R]
7. Just to be sure that we have a representative sample, would you please tell me your race?
[Black/African American, White, Asian, Other, R]
 - 7A. And, would you say that you are of Hispanic ancestry or not? [YNDR]
8. Is your family's total yearly income before taxes \$30,000 or less, or more than \$30,000?
[less than \$30,000, more than \$30,000, DR]
9. Gender [Don't ask, just record] [Male, Female]
10. Do you ever purchase "organic" or "all-natural" food products? [YNDR]

If you are selected to participate in this focus group study, a University researcher will call you and a confirmation letter containing details such as time, date, location, and driving instructions will be mailed to you.

To facilitate that follow-up, can you please tell me:

11. Your first name: [text]
12. Your last name: [text]
13. Your preferred mailing address: [address]
14. And, can I confirm that your telephone number is [phone#]? [YNDR]

Thank you, that completes the first part of the process. If you are selected to participate, you will receive a call within 7 business days.

APPENDIX C
INVITATION LETTER TO SELECTED PARTICIPANTS

July 8, 2006

Mr. John Smith
567 W. University Avenue
Apt. 1234
Gainesville, FL 32607

Dear Mr. Smith:

The UF Institute for Food and Agricultural Science (IFAS) is conducting a focus group to learn more about people's opinions and perceptions of all-natural pork. Thank you for agreeing to participate in this important focus group

The focus group will be held at the Florida Farm Bureau, on SW 34th Street in Gainesville, on Saturday, July 15th at 1:30 PM. Light refreshments will be served, as well as dishes made with all-natural pork, and you will receive a \$50 stipend for your participation.

We appreciate your attendance since the participants have been selected to provide a diversity of opinions about all-natural pork. A seat has been reserved for you in the focus group and your responses are important. If for some reason you cannot attend, please call 352-392-5957 before Friday, July 14th at 4 PM.

Thank you again for your participation.

Sincerely,

Michael J. Scicchitano, Ph.D.
Director

APPENDIX D
MODERATOR GUIDE AND QUESTIONING ROUTE

Moderator reads: Hello and welcome to our session. Thank you for taking the time to join our discussion about pork. My name is Courtney Meyers and I am a graduate student at the University of Florida. Assisting me today is Tracy Irani, Katie Chodil, and Ricky Telg also from UF. Madison Farms Pork is sponsoring this focus group because they want your feedback on the development of pork products.

You have been invited here because you have characteristics of interest to us. You are all consumers who purchase meat for your household.

Before we begin, let me share some things that will make our discussions easier and more productive. There are no right or wrong answers, but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said. Please speak up and only one person should talk at a time. We're tape recording and video recording the session because we don't want to miss any of your comments. We'll be on a first-name basis, and in our later reports there will not be any names attached to comments. You may be assured of confidentiality.

My role here is to ask questions and listen. I won't be participating in the conversation, but I want you to feel free to talk with one another. I'll be asking around 20 questions, and I'll be moving the discussion from one question to the next. There is a tendency in these discussions for some people to talk a lot and some people not to say much. But it is important for us to hear from each of you today because you have different experiences. So if one of you is sharing a lot, I may ask you to let others respond. And if you aren't saying much, I may ask for your opinion.

Our session will last about two hours and will also include time for taste testing. If you have your cell phone or pager and need to leave it on, please leave the room when you get a call and return as quickly as possible.

Let's begin by getting to know more about you. Let's go around the room and have everyone introduce themselves. Please tell us your name, a little bit about yourself, and your favorite food.

Unaided

I'd like to begin today's discussion by learning more about how you shop for food.

- Are you the one in your household who normally buys food?
- Where do you do your grocery shopping?
- What sources do you use to learn about food products?
- How often do you buy meat and how much do you buy?
- What do you look for when you buy meat?

Okay let's talk more specifically about how you buy pork.

- When did you last buy pork? Do you remember how much you paid for it?
- On average, how often would you say you buy pork?
What do you look for when buying fresh pork?

Most food products have some type of label or packaging that try to convince you to buy that product or inform you of its contents.

- How much attention do you give to food labels when making purchasing decisions?
- What does the term "all-natural" bring to mind?
- If you saw a label or sticker on a food package that said "all-natural" what does that mean to you?
- What does it mean to you if it's on a package of pork?
- In reference to food products, what does the term "organic" mean?

Production standards for pork product labeling, Aided

I'm going to show you the standards that make conventional, all-natural, and organic products different. [Definition of all-natural and organic standards for pork product labeling provided on handout]

- Did you understand the differences between the standards for these products prior to viewing this information? To what extent?
- How can the distinctions between these standards for food products be made clearer?

Taste Testing, Aided

Here's the fun part. We have prepared a few different dishes that contain all-natural pork. Try to really *taste* the pork in each dish. After you taste the pork or finish the dish, answer the questions on the slips of paper being passed around.

The first taste test we will do is to compare an all-natural pork loin roast to a conventional pork loin roast. This is a blind taste test in that you will not know which type you are sampling. Please write your reactions to each sample on the provided sheet.

- Now that you have tried both types, which do you think tasted better?
- Could you taste a difference between the two samples?
- _____ was the all-natural pork product. Are there any further reactions to that?

We now have two other pork products for you to sample. These are both all-natural products.

I hope you all enjoyed doing the taste testing.

- What do you think of the pork you just tried?
- Now that you've tried the pork, how likely would you be to buy it? Why or why not?
- Would you be willing to pay more for this product with the all-natural label than one without? Why or why not?
- The price points for _____ is _____ for conventional and _____ for all-natural (display prices on index cards) [Repeat for all three products]
- What do you think about the price difference?

Marketing Materials, Aided (dependent on two-hour time limit)

To inform people about their all-natural pork, Madison Farms Pork has these informational pieces. [Pass around marketing materials]

- What do you think of these?
- Are you interested in reading these materials?
- Where should they be made available?
- Would you be likely to pick this information up at a grocery store?
- What other ways could this information be made available that you think would be more effective?
- After learning USDA's definition of all-natural and organic products, what is your reaction to the guidelines Madison Farms uses for its pork products?

Concluding discussion

As we've talked today and tasted some all-natural pork:

- Have you thought of anything else you'd like to say or bring up about pork that we have not discussed?

I am now going to try to summarize the main points from today's discussion. (key messages and big ideas that developed from the discussion) The main topics

- Is this an adequate summary?

Moderator reads: As was explained at the beginning of the session, the purpose of this focus group was to get your feedback and opinions on pork. Your comments today will aid in the development of pork products and labeling. Your input has provided us with a better understanding of what other consumers may think about all-natural pork.

- Have we missed anything or are there any other comments?

Moderator reads: Thank you for taking time out of your day to share your opinions. Your participation is greatly appreciated and has provided valuable insight into this topic. Thanks again.

Debriefing questions to be discussed between moderator and assistant.

- What are the most important themes or ideas discussed?
- How did these differ from what we expected?
- How did these differ from what occurred in earlier focus groups?
- What points need to be included in the report?
- What quotes should be remembered and possibly included in the report?
- Were there any unexpected or anticipated findings?
- Should we do anything differently for the next focus group?

APPENDIX E
TASTE TEST SURVEY FEEDBACK FORM

Try to really *taste* the pork in each dish. After each taste, or after you finish the portion please answer the questions.

All-natural and conventional pork blind taste test

BONELESS LOIN ROAST (1):

- a. How would you compare the taste of this product with your current brand?
 Much better Better About the same Worse Much worse
- b. What is the likelihood of you purchasing this product if it was available?
 Very high Somewhat high Average Somewhat low Very low
- c. What is your perceived **value** of this product?
 Very high Somewhat high Average Somewhat low Very low
- d. Comments and reactions

BONELESS LOIN ROAST (2):

- a. How would you compare the taste of this product with your current brand?
 Much better Better About the same Worse Much worse
- b. What is the likelihood of you purchasing this product if it was available?
 Very high Somewhat high Average Somewhat low Very low
- c. What is your perceived **value** of this product?
 Very high Somewhat high Average Somewhat low Very low
- d. How would you compare this pork to the pork you just tasted?
 Much better Better About the same Worse Much worse
- e. Comments and reactions

GROUND PORK:

- a. How would you compare the taste of this product with your current brand?
 Much better Better About the same Worse Much worse
- b. What is the likelihood of you purchasing this product if it was available?
 Very high Somewhat high Average Somewhat low Very low
- c. What is your perceived **value** of this product?
 Very high Somewhat high Average Somewhat low Very low
- d. Comments and reactions

SPARE RIBS:

- a. How would you compare the taste of this product with your current brand?
 Much better Better About the same Worse Much worse
- b. What is the likelihood of you purchasing this product if it was available?
 Very high Somewhat high Average Somewhat low Very low
- c. What is your perceived **value** of this product?
 Very high Somewhat high Average Somewhat low Very low
- d. Comments and reactions

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BIOGRAPHICAL SKETCH

Katherine Chodil lived in a suburb of southwest Chicago until she moved to Indiana to pursue a degree at Purdue University, West Lafayette campus. She received her Bachelor of Science degree in agricultural communications from Purdue in May 2005. This thesis is the culmination of her Master of Science degree in agricultural education and communication at the University of Florida. In August 2007, she will continue on for a Ph.D. in agricultural education and communication.