

MARKETING POTENTIAL OF FRESH FOOD PRODUCTS TO HISPANIC CONSUMERS: EXPLORING A NEW MARKET OPPORTUNITY FY 2008

Kentucky's Hispanic population is growing rapidly. It is estimated that currently more than 100,000 Hispanic individuals live within a 50 mile radius of Lexington. There are approximately 84,000 farms in Kentucky, the majority of which are small scale operations. In addition there are 150 farmers' markets, and numerous roadside stands with products that would appeal to the Hispanic market. Kentucky also has approximately 20 small scale USDA inspected meat processing facilities and dozens of custom plants scattered across the State. Especially during the summer months, many of these plants are underutilized and need additional market outlets to ensure their survival.

The goals of the project were to: 1) explore opportunities for selling Kentucky farm products and Kentucky-processed fresh sheep and goat products to Hispanic consumers; 2) determine the willingness of Hispanic grocers and restaurants to carry locally produced goat and sheep products; and 3) facilitate the exchange of information between Hispanic consumers and Kentucky farmers.

An 11-member Hispanic advisory panel helped researchers prepare to conduct consumer focus groups in four Kentucky cities with large concentrations of Hispanic consumers to assess food preferences and willingness to pay for local products. Team members from the University of Kentucky conducted personal interviews with Hispanic grocers and restaurateurs, and visited local retail outlets to determine their willingness to carry locally produced goat and sheep products. Publications for Hispanic consumers, producers, and small scale meat processors were produced during the project to inform them of mutually beneficial supply/demand opportunities.

FINAL REPORT

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Final Report

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Marketing Potential of Fresh Food Products to Hispanic Consumers: Exploring a New Market Opportunity

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The Problem:

The Hispanic population in Kentucky is growing rapidly. According to the 2000 U.S. Census Kentucky had approximately 60,000 reported Hispanics, however it is suspected that this number is much higher. Current estimates for central Kentucky by the local Hispanic radio station alone indicate there may be over 100,000 Hispanics living within a 50 mile radius of Lexington, KY.

Evidence indicates that many Hispanics prefer fresh vegetables, herbs, and meats. Some Hispanics are willing to purchase fresh vegetables and herbs directly from farmers, in addition to buying live animals such as goats, sheep, chickens and fish. However, Hispanics living in cities are often unable to process larger animals (e.g., goat or sheep) on their own. Such consumers have shown willingness to buy live animals and have a local processor provide the processing and packaging service at an additional fee. Hence, both farmers and neighborhood meat processors can benefit by accessing the Hispanic food market.

Farmers who have sold products to Hispanics report that their customers typically pay in cash and at prices that are competitive with the prices received in farmers' markets and restaurants. This supports the notion that Hispanic consumers pay a premium for freshness, or for live animals, which are unavailable in grocery stores. This is good news for many small-scale farmers in the United States because they have a competitive advantage in providing small amounts of fresh product, something that large farms and overseas food suppliers are unable to do.

While direct marketing may be an excellent option for some, many Kentucky producers still choose to market their products in more traditional channels due to tradition, time constraints, volume, personal preferences, etc. Some farmers prefer not to sell live animals to individuals and find it easy to sell a few head of livestock to a local butcher/processor. This fact, coupled with the fact that Hispanics living in urban areas find processing live animals themselves is difficult, created the need for exploring the Hispanic market for processed meat products.

Small-scale livestock processors face marketing barriers related to the small volume of production, which translates to not being price competitive in traditional wholesale and retail markets. For example, small-scale sheep and goat processors will not succeed in competing in wholesale markets with respect to price, particularly with the influx of lower-priced imports. Clearly, these processors need markets which will pay a premium for freshness, quality, and custom butchering services. Hispanics, who are unwilling or unable to process animals themselves, would form a viable market for such processors. The processors could either sell fresh meat to Hispanic consumers directly, or supply Hispanic grocers and restaurateurs with freshly-butchered meat at premium prices. Either way small processors would benefit by supplying the Hispanic market with fresh meat from live animals purchased from farms within their community.

According to the Kentucky Agricultural Statistics Service, Kentucky has approximately eighty-four thousand farms, fifty-seven thousand of which average seventy-seven acres in size and have less than ten-thousand in sales per year. The need for sustained direct markets and farm-gate sales for these small farms is becoming so acute that accessing the Hispanic direct market would be literally a saving grace for many small-scale farms in Kentucky and across the nation. Likewise, Kentucky has approximately 20 small-scale, USDA inspected meat processing facilities, and dozens of custom plants scattered across the state. During many months of the year, especially the summer months, many of these plants struggle to process enough animals to keep their doors open. These small plants need additional market outlets for their survival.

Despite its promise, selling food products to Hispanics has a few problems. While some farmers have Hispanic customers, many small-scale farmers are unable to sell products directly to Hispanics because 1) they do not know what products are in demand (and their characteristics), and 2) they do not know how to promote products to Hispanics. Similarly, small-scale processors are unaware of the cuts of meat, demand times, and pricing that are suitable for a Hispanic clientele. This lack of information and organization also extend to buyers, i.e., many Hispanic consumers do not know if there are farms near their community willing to sell fresh/live products, if there are local butchers/processors who are willing to process live animals in the manner that they prefer, at what times of the year the products are available, what typical product prices they can expect, etc. Hence, for the Hispanic market to succeed, buyers and sellers must be networked in a way that both parties can transact at a minimum effort and cost.

To remedy these issues, we needed to 1) explore and define the Hispanic market in Kentucky, both from a Hispanic consumer and Hispanic grocer/restaurant perspective, and 2) enable Hispanic buyers and Kentucky producers and meat processors to interact effectively with key information about both products and prices.

Approaching the Problem:

Objective 1: Explore the market opportunity for selling Kentucky farm products and Kentucky-processed fresh sheep and goat products to Hispanic consumers.

To accomplish this objective we began with some basic demographic research into the Hispanic populations in Kentucky. We also established a Hispanic Advisory Panel consisting of 11 members. These members were unpaid individuals either of Hispanic origin or closely tied to the Hispanic community. This panel met three times and was invaluable in assisting the project team in learning how to properly gather information from Hispanic consumers. This group advised the team on what questions to ask, how to ask them, how to dress, how to recruit consumers for a focus group, what times to conduct the focus groups, and the proper translating of our survey and focus group questions. Once these survey tools were properly developed we conducted four focus groups in Kentucky cities found to have large concentrations of Hispanic consumers. Team members from the University of Kentucky, Kentucky State University and the

Kentucky Department of Agriculture cooperated on developing and conducting the focus groups. The following individuals, businesses and organizations assisted in conducting the focus group sessions.

La chiquita
Mexican fresh foods store and restaurant
Frankfort, Kentucky

Frankfort Community Center
ESL Classes

Martha Sanchez
Newspaper reporter
Al Dia en America
Lexington, Kentucky

Luis Salomon
St Bartholomew Catholic Church
Louisville, KY

Los Nopales Restaurant
Elizabethtown, Kentucky

El Campestre Restaurant
Lexington, Kentucky

St. Rita Catholic Church
Louisville, Kentucky

In addition to the focus groups, 144 Hispanic consumers in four cities across Kentucky were surveyed regarding general shopping habits, willingness to pay, preferred purchase methods and various product preferences. Team members from Kentucky State University were responsible for developing and conducting these surveys.

Objective 2: Determine the willingness of Hispanic grocers and restaurants to purchase locally produced goat and sheep products.

This objective was accomplished by first learning what products are currently available to Hispanic consumers at local retail outlets. Team members from the University of Kentucky conducted personal interviews with grocers and restaurateurs and visited local retail outlets to gather this information. Once this information was gathered, local, Kentucky grown goat products were test marketed through some area restaurants and retail outlets to determine which products were desired at what prices. The test marketing was conducted by team members from the University of Kentucky with the cooperation of Bluegrass Lamb and Goat, a small, local meat processor.

The following stores participated in the test marketing:

Aguas Callientes
Shelbyville, KY

Aguas Callientes
Lexington, KY

El Charo Tienda
Frankfort, KY

Fruteria Veracruz,
Frankfort, KY

La Chiquita Mexican Grocery
Frankfort, KY

La Favorita
Lexington, KY

La Michoacana 2
Shelbyville, KY

La Victoria
Versailles, KY

Tiends Tanely
Shelbyville, KY

| and Objective 3: Facilitate the exchange of information between Hispanic consumers and Kentucky farmers.

This objective has been met by the creation of three publications, one for Hispanic consumers, one for producers, and one for small scale meat processors. The Hispanic consumer publication outlines what fresh products are available locally and gives suggestions on how to find these products, including encouraging Hispanic consumers to visit their local farmers markets (See Appendix A and B). These publications have been distributed as inserts in local Hispanic newspapers along with information on the locations of area farmers' markets. Additional copies of this publication have been sent to county extension offices, libraries, community centers, etc. for distribution. Team members from the University of Kentucky and the Kentucky Department of Agriculture worked to develop and distribute this publication.

Team members from the University of Kentucky and the Kentucky Department of Agriculture also developed a producer publication that outlines the various fresh products Hispanic consumers want that can be readily grown in Kentucky (see Appendix C). It discusses desired product forms and offers some pricing information. In addition, the publication offers tips and strategies for breaking into the Hispanic market and building relationships for continued success. This publication has been distributed to all 120 Kentucky county extension offices and will be distributed at various producer events, meetings and field days as well as sent to all Kentucky farmers' market managers to share with their growers.

The meat processor fact sheet was developed by team members from the University of Kentucky and the Kentucky Department of Agriculture and is designed to assist small scale meat processors as they attempt to enter the Hispanic marketplace (see Appendix D). This publication helps answer many of the questions small meat processors may have when considering venturing into this segment of the marketplace and offers tips and suggestions on types of products, price points and times when certain products may be in demand.

In addition to these publications, the following articles have been submitted:

- 1) Dasgupta S. and K. R. Probst. 2010. Willingness to pay for aquaculture products among Hispanic consumers in Kentucky. Kentucky Aquatic Newsletter, in press.
- 2) Dasgupta, S., K. R. Probst, and S. Wesley. 2010. Hispanic Consumers' Willingness to Purchase Aquaculture Products Directly From Farmers: Results from a Recent Survey. Journal of Extension. In review.
- 3) Dasgupta, S., S. Wesley, and K. R. Probst. 2010. Hispanic Consumer Perceptions of Kentucky-Grown Pigs. Journal of the Kentucky Academy of Science. In review.

Information from the project has also been presented at the Kentucky Aquaculture Association 2010 Annual Meeting and the 2010 National Goat Conference in Tallahassee, FL.

Results, Conclusions, and Lessons Learned:

Purchasing Habits of Hispanic Consumers in Kentucky:

Through our work with the Hispanic community for the past two years, we have gathered a tremendous amount of information about the purchasing habits of Hispanic consumers in Kentucky. We have visited with Hispanic consumers in various settings which have included informal discussions, focus group sessions and formal surveys. We have learned a tremendous amount about the types of meats and produce they desire, where they shop, how often, etc. However, we have also learned about huge disconnects that

often exist between stated preferences and actions. The following is a summary of our discoveries. Complete results can be found in Appendices E, F, and G.

General Conclusions –

- The majority of Hispanic consumers do their major shopping at large chain supermarkets such as Wal-Mart and Kroger even though they often complain about the quality and freshness of products available at these outlets.
- While major shopping happens at chain stores, most also shop at specialty ethnic stores at least a couple of times per month.
- While fresh was stated to be the most important trait to the Hispanic consumers, most indicated that they seldom or never shop at farmers' markets or purchase fresh products direct from the farm. Lack of awareness, transportation and real or perceived language barriers seemed to be reasons for not utilizing these outlets more.
- While most don't currently buy direct from farmers, 72% of those surveyed were willing to travel within 20 miles of their home to obtain fresh food products.

Conclusions Regarding Fresh Meat Products –

Goats

- Forty-eight percent of respondents indicated that they would like to purchase live goats direct from Kentucky Farmers and some indicated that processing it themselves was a tradition.
- Thirteen percent indicated that they have purchased live goats before.
- While there seems to be no preference for the sex of the goat and great differences in the desired size and age, most respondents indicated that the whole carcass was the most desired form.
- Due to the fact that access to fresh goat products is limited, goat is primarily consumed for special occasions such as birthdays, communions, and other holidays although most consumers indicated they would eat it more if it were more available.
- Based on the willingness to pay data gathered from this survey, it appears the product most likely to be purchased by Hispanic consumers in Kentucky would be older, cull females which have a lower value per pound than young kids.

Chickens

- The majority of surveyed consumers (52%) were willing to purchase live chickens direct from the farm and 31% indicated that they had purchased chickens this way previously.
- Most respondents indicated that they would buy 1 to 3 chickens a week in this manner and were willing to pay an average of \$6.28 for a 5 lb. bird.

Pigs

- Twenty-nine percent of those surveyed were willing to purchase live pigs from Kentucky farmers, but fewer (13%) were willing to process pigs themselves.
- From this information, it is concluded that in order to effectively market live pigs to Hispanic consumers in Kentucky, a partnership with a local butcher will be needed.
- The desired size for live pigs varies, with the majority of those surveyed desiring a small (10 to 40 lb.) pig, but larger pigs were also desired.

Aquaculture Products

- Thirty-nine percent of respondents were willing to purchase local aquaculture products direct from the farm, with tilapia the preferred product, followed by freshwater prawns, bass and finally catfish.
- As with many other products, whole fish was the preferred product form.
- Surveyed consumers indicated a willingness to pay of \$2.57 to \$2.99 per pound for live Tilapia.

Conclusions Regarding Fresh Produce –

- Most Hispanic consumers are disappointed in the quality and availability of fresh fruits, vegetables and herbs.
- Many fruits desired by Hispanic consumers are not able to be grown by Kentucky farmers.
- Many of the vegetables desired by Hispanic consumers are readily grown in Kentucky and farmers should consider Hispanic consumers a target market for fresh, seasonal produce.

Test Marketing Conclusions -

- Because most Hispanic grocery stores in Kentucky are small, it is not feasible to stock fresh meat products, even though fresh is the preferred product form.
- The larger Hispanic groceries in larger cities will sell a larger volume and have the opportunity of offering a fresh, not frozen product.
- Between the price sensitivity of Kentucky Hispanic consumers and prices of imported products, older cull animals are the only product that can be offered at a competitive price at the smaller stores.
- The actual willingness to pay for frozen, locally processed goat meat lies between \$2.39 and \$3.00 per pound.
- Using a Hispanic food distributor might be one way to effectively market goat meat into smaller Hispanic stores where the individual store volume is low, but the total volume of collective sales would be great.
- The majority of those interviewed agreed that goat meat is a delicacy and often served for special occasions and holidays. The opportunity for Hispanic

consumers to special order fresh, young goat for these occasions needs to be further explored.

Benefits and Beneficiaries of the Project:

The benefits of understanding more about our Hispanic consumers in Kentucky are two fold. Hispanic consumers will benefit because with this knowledge, Kentucky farmers will be able to produce more of the products desired by this community in the forms that they desire. Kentucky farmers will benefit because they will have an additional market outlet for their high quality, fresh products. The key will be continuing the communication between these groups and effectively marketing the needs of one group to another.

Kentucky has approximately 57,000 small farms with less than \$10,000 in sales per year. It is estimated that central Kentucky alone may have as many as 100,000 Hispanic consumers. All have the potential to benefit from the results of this project.

Next Steps:

From the data gathered in this project, it is most apparent that Hispanic consumers desire fresh products (meats, fish, and produce) primarily in their whole, unprocessed form. Kentucky has 150 farmers' markets and countless roadside stands which provide the exact products these consumers claim to desire. Further work is needed to educate Hispanic consumers on the existence of such market outlets and to ensure our farmers are aware of this ready customer base.

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Appendices

PURCHASING FRESH FOODS IN KENTUCKY

While some grocery stores may offer limited supplies of local products during peak season, unfortunately, fresh, local foods are not always carried by the larger chain stores. Ready to buy farm fresh, high quality products? Try these suggestions:

SHOP AT YOUR LOCAL FARMERS' MARKET

Kentucky has 147 Farmers' markets across the state and one may be near you. Visit www.ky-agr.com and click on programs and then Farmers Markets for a complete list of farmer's markets around the state. At the farmers' market you will find different vendors selling farms fresh fruits, vegetables, herbs, meats, and baked goods.

VISIT A LOCAL ROADSIDE STAND

Many farmers sell products to customers at the farm, and usually these farms are identified with large signs located near the highway. The farmer usually has products picked and ready for you to purchase or sometimes you can even pick your own fresh produce.

VISIT WWW.MARKETMAKERKY.COM

This unique website allows you to search for local food products by the product name and location.

JOIN A CSA

A CSA (community supported agriculture) is a program where a local farmer provides you with a share of his fresh products each week.

CONTACT YOUR COUNTY EXTENSION OFFICE

All 120 Kentucky counties have Cooperative Extension Service Office which provides outreach and services to agriculture producers and others in the community. This office should be able to direct you to farmers that sell fresh food products in your area.



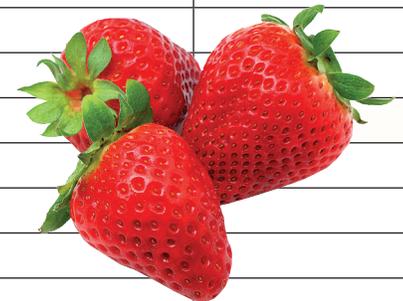
SEASONS PRODUCTS ARE AVAILABLE



Did you know that Farmers in Kentucky grow many types of fresh foods including farm fresh meats and vegetables? Kentucky has over 85,000 farms covering 14 million acres of land and many of these farms grow high quality products for direct sale. The key is knowing where to find these fresh, locally grown products.

	PRODUCT	SPRING	SUMMER	FALL	WINTER
MEATS	Beef				
	Pork				
	Lamb/Sheep				
	Goat				
	Chicken				
	Fish				

	PRODUCT	SPRING	SUMMER	FALL	WINTER
VEGETABLES	Lettuces				
	Spinach				
	Broccoli				
	Cauliflower				
	Cabbage				
	Tomatoes				
	Ejote (green bean)				
	Elote (corn)				
	Peppers				
	Onions				
	Squashes				
	Potatoes				
Cucumbers					



	PRODUCT	SPRING	SUMMER	FALL	WINTER
FRUITS	Strawberries	<i>(Late spring)</i>			
	Melons				
	Berries				
	Peaches				
	Apples				



LOOK FOR THE KENTUCKY PROUD LOGO

The Kentucky Proud logo helps consumers identify foods and other products which were grown or processed in Kentucky. When you see the Kentucky Proud logo in fresh produce and meats, you can be sure it is a quality, fresh product grown by a Kentucky farmer.



COMPRANDO COMIDA FRESCA EN KENTUCKY

Aunque algunas tiendas de abarrotería ofrecen productos locales, muchas veces no es fácil encontrar productos frescos y locales en tiendas y supermercados grandes. ¿Está listo para comprar productos de alta calidad desde nuestras granjas locales? Por favor, use estas sugerencias:

COMPRE EN SU MERCADO LOCAL AL AIRE LIBRE

Kentucky tiene 147 mercados al aire libre alrededor del estado y uno de estos puede estar cerca de su casa. Por favor visite el sitio de internet www.kyagr.com y haga clic en "Programs" y después en "Farmers' Markets" para una lista completa de mercados en Kentucky. En el mercado al aire libre usted puede encontrar a diferentes vendedores ofreciendo frutas, vegetales, hierbas, carnes, panes y postres.

VISITE UNA CONCESIÓN CERCA DE LA CARRETERA

Muchos granjeros venden sus productos en sus propios ranchos o granjas. Estos ranchos o granjas están identificadas por letreros grandes en la carretera. Algunas veces el granjero ya tiene el producto cortado y listo para el comprador. Otras veces usted mismo puede escoger y cortar el producto deseado.

VISITE EL SITIO DE INTERNET WWW.MARKETMAKERKY.COM

Este sitio del Internet ayuda a la gente a encontrar productos locales por nombre del producto o por ubicación.

HÁGASE MIEMBRO DE UNA CSA

Una CSA es una organización que significa agricultura sostenida por la comunidad y es un programa en el cual un granjero local provee a los miembros una porción de sus productos frescos cada semana.

PÓNGASE EN CONTACTO CON SU OFICINA DE EXTENSIÓN DEL CONDADO

Todos los 120 condados del estado de Kentucky tienen oficinas de Extensión Cooperativa. Estas oficinas proveen diversos servicios a productores agrícolas y otros miembros de la comunidad. Aquí usted también podrá encontrar información sobre como localizar a granjeros que venden productos en su comunidad.



TEMPORADAS O ESTACIONES DEL AÑO CUANDO LOS PRODUCTOS ESTÁN DISPONIBLES

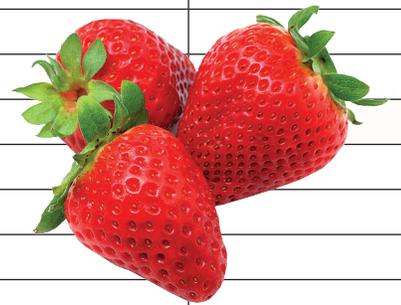


¿Sabía usted que los granjeros en Kentucky cultivan varios tipos de productos frescos incluso carnes y vegetales? Kentucky tiene más de 85,000 ranchos o granjas. Estas cubren 9,900 metros cuadrados de terreno y muchas de estas granjas cultivan productos de alta calidad para ventas directas. La clave es conocer dónde puede encontrar estos productos frescos y locales.

	PRODUCTO	PRIMAVERA	VERANO	OTOÑO	INVIERNO
CARNES	Carne de res				
	Puerco				
	Cordero/Oveja				
	Cabra				
	Pollo				
	Pescado				

VEGETALES	Lechuga				
	Espinaca				
	Brócoli				
	Coliflor				
	Col				
	Tomates				
	Ejotes				
	Elote				
	Pimientos				
	Cebollas				
	Calabazas				
	Papas				
Pepinos					

FRUTAS	Fresas	<i>(Fin de primavera)</i>			
	Melones				
	Bayas				
	Duraznos				
	Manzanas				



SIEMPRE BUSQUE EL LOGO DE "KENTUCKY PROUD"

El logo de "Kentucky Proud" ayuda a los consumidores a identificar alimentos y otros productos cultivados o procesados en el estado de Kentucky. Cuando vea el logo de "Kentucky Proud" en frutas o vegetales frescos y en carnes, usted puede estar seguro que es un producto fresco y de alta calidad cultivado por un granjero de Kentucky.

STRATEGIES

FOR MARKETING FARM PRODUCTS TO
HISPANIC AUDIENCES



FARMER'S REPORT

The Hispanic population is the fastest growing market segment in Kentucky. Recent estimates (2009, US Census Bureau) indicate that approximately 2.4 percent of Kentucky's 4.3 million citizens are of Hispanic origin. Therefore it is likely that Kentucky has over 100,000 Hispanic consumers making this a large and growing market segment for agricultural products. Spanish speaking people often come from cultures in which lamb and goat meat is a regular part of the diet, and farmers naturally think of this audience as a potential market for these products. But, fresh vegetables are also highly demanded by this group. Surveys and research support a strategy of marketing to Hispanic customers, but putting it into place takes some careful planning. Here are some ideas.

First of all, target your audience. Just because people's native language is Spanish, don't assume that they like goat and/or lamb meat. Spanish is spoken in many countries south of the U.S. (and of course Spain), and food preferences vary greatly. Even within Mexico, there is variation. Many Hispanic consumers enjoy fresh beef, pork, lamb, goat, poultry and fish products.

For vegetables, fresh is highly preferred. Peppers, tomatoes, and onions are obvious choices, but ask your Spanish speaking customers what they want and add it to your production plans. Items in demand include corn, green beans, specialty squashes, and herbs.

Holidays and family celebrations of special events are times when many Spanish speaking customers buy a goat, lamb or pig – and the other foods that go with them. Check holiday schedules and have products available. Not only may you get a sale, but this is a great way to break into this demographic market.

On the meat side – you have choices of selling a live animal or meat. And the meat could be from an old goat or a young lamb. Different customers will have different preferences, and even choose different products for different occasions. Some Mexican-origin customers will want a young kid



for a birthday party, but stew meat cubes from does or ewes for more daily preparation. If you are selling meat cuts, think of the processor you use as a partner and make sure the processor cuts the carcass to meet the needs of your customers.

Sales of live animals are often win-win opportunities for seller and buyer. It will cost about \$60 to process a goat that is worth, say \$100 alive. This adds a lot to the cost of the meat. If the buyer does the processing, there is a significant cost savings, which can lead to more future sales.

Relationship selling is always important. Word of mouth recommendations are the most valuable type of marketing, and this is especially true in close knit cultures like immigrant groups. Sellers can take advantage of this by working closely with community leaders and telling them about your products. Tiendas (convenience-type shops) often sell fresh and prepared products. They can be a good market outlet. You may even get the shop owner to partner with you, taking orders for whole lamb, goat, or pork carcasses.

Finally, think carefully about advertising. There are many Spanish language outlets – newspapers and radio stations. They can be a way of opening the door.

The bottom line is to deliver a quality product at a fair price and in a friendly relationship. Your goal should be to build a strong market in the long run. Taking these steps will help you develop a good reputation and improve the chances of a successful marketing enterprise.

PIGS

When Hispanic consumers were asked about purchasing pigs direct from the farm, the following was learned:

- Twenty nine percent of consumers were willing to buy live pigs direct from the farm, however only thirteen percent were willing to process them themselves.
- Most consumers preferred lightweight pigs (20 to 40 pounds) for special occasions but larger hogs were also desired.
- Most consumers would buy 1 or 2 pigs per year.

Based on the above information, potential definitely exists for producers to direct market pigs to Hispanic consumers, but a local processor may be a valuable partner in this venture.

FISH

Most Hispanic consumer indicated a strong desire to buy fresh aquaculture products and the following was observed:

- Tilapia was the most desired fresh fish product followed by freshwater prawns, bass and catfish.
- Whole fish was the most desirable product form with fresh fillets second. Frozen products are not desired.
- A large percentage of consumers (35%) indicated a willingness to travel to the farm to purchase aquaculture products.
- Most consumers that desired tilapia indicated a willingness to pay between \$2.50 and 3.00 per pound.

CHICKEN

When Hispanic consumers were surveyed about purchasing chickens direct from farmers, a large percent indicated they have or would like to purchase chickens in this manner. In fact:

- Thirty one percent of respondents have bought live chickens direct from farmers in the past.
- Thirty seven percent of consumers prefer to buy their chickens live.
- Most Hispanic consumers would buy 1 to 3 chickens a week.
- Consumers indicated a willingness to pay of \$6 to 7 per bird.

GOATS

When Kentucky Hispanic consumers were asked about their goat consumption habits, the following information was gathered:

- Goat is primarily a special occasion product used for birthdays, weddings, and other events.
- Goat consumption in Hispanics is primarily based on the country, and more specifically, the region of origin.
- Most consumers indicated they would use one or two goats per year.
- The fresh, whole carcass is the preferred product form (no frozen).
- Most consumers prefer to have the product in carcass form, but many Hispanic consumers are still willing to buy live goats and process them themselves.
- Most consumers indicated the gender of the goat was not important.
- The age of the goat desired varied, however the prices most consumers were willing to pay would be more closely aligned with older, cull animals.

In summary, great potential exists for goat producers to build relationships with local Hispanic consumers and to directly market live goats to these consumers either for them to process themselves or have processed at a local butcher.

FRUITS

Many of the fresh fruits desired by Hispanic consumers are tropical fruits not grown in Kentucky such as Mangos. However, some consumers indicated a preference for the following locally grown fruits.

- Watermelon
- Grapes
- Peaches
- Apples
- Pumpkin

HERBS

Surveyed Hispanic consumers indicated they desired the following:

- Cilantro
- Malanga (taro root)
- Chaya
- Epazote
- Oregano

VEGETABLES

When surveyed, Hispanic consumers indicated a wide range of vegetables desired, but fresh seemed to be the most important trait. Some of the desired vegetables that can be grown in Kentucky include:

- Broccoli
- Cabbage
- Carrots
- Cauliflower
- Chayote (Mexican green squash)*
- Corn
- Cucumber
- Green beans
- Lettuces
- Mushrooms
- Onion
- Peppers
- Potatoes
- Spinach
- Tomatoes
- Tomatillos

*Consumers indicated this product was difficult to find

GENERAL OBSERVATIONS

- Hispanic consumers overwhelmingly indicate that they would like to purchase fresh, local, meats, vegetables and fruits, however due to price and convenience most shop at larger chain stores.
- While farmers' markets would seem to be an excellent place to find many of the fresh products Hispanic consumers desire, most consumers indicated that they never shop at the farmers' market and many indicated it was due to real or perceived language barriers.
- Build relationships with your customers to help them feel more comfortable.
- Try to work with existing suppliers and distributors that already service the Hispanic market.
- Take advantage of Hispanic holidays and celebrations to break into this target market.



LOOK FOR THE KENTUCKY PROUD LOGO

The Kentucky Proud logo helps consumers identify foods and other products which were grown or processed in Kentucky. When you see the Kentucky Proud logo on fresh produce and meats, you can be sure it is a quality, fresh product grown by a Kentucky farmer.

Marketing Lamb and Goat Meat to Hispanic Retail Outlets

Terry Hutchens¹, Gregg Rentfrow¹, Tess Caudill²

¹University of Kentucky, ²Kentucky Department of Agriculture

The Hispanic population in Kentucky is growing rapidly. According to the 2000 U.S. Census, Kentucky had approximately 60,000 people who identify themselves as Hispanic; however, this number is thought to be much higher. More recent estimates for Kentucky (2009, U.S. Census Bureau) indicated that 2.4 percent of Kentucky's 4.3 million population is of Hispanic origin. Therefore it is likely that Kentucky has a Hispanic population in excess of 100,000. The Hispanic population is concentrated in major Kentucky population centers, including Lexington, Louisville, Frankfort, Bowling Green, and surrounding areas. Furthermore, Census Bureau statistics indicate that nearly 75 percent of these Hispanics are of Mexican origin.

The high lamb and goat consumption by minority populations immigrating into Kentucky could grow exponentially within the next few years. Present day minority populations are expected to reach 235.7 million out of a total U.S. population of 439 million, or 53% of the total U.S. population by 2030. These statistics indicate a growing market for meat processors' and sheep and goat products. This developing industry will need to deal with a complex set of issues in order to successfully do business with this emerging market.

Selling lamb and goat directly to Hispanic retail establishments such as grocery stores, restaurants and lunch counter buffets takes patience, persistence and excellent salesmanship. To help you take advantage of this market, ask yourself the following questions:

1. What segment of this population is the primary consumer?

People of Mexican origin will be the dominant consumers of sheep and goat products. People from Mexico, Central and South American the Caribbean, Cuba, countries including the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, and Nicaragua. consume both lamb and goat, but may not consume the same products. Preference appears to be influenced by individual country, regions within countries and socioeconomic status.

2. Where can I find a significant number of potential outlets for my products? Grocery stores and restaurants catering to the immigrant Mexican populations can be located geographically through the web-based marketing aid *Kentucky MarketMaker*,

<http://www.marketmakerky.com/>,

which provides a link between agricultural producers, processors, and potential buyers of local food products. If additional assistance is needed, contact Kentucky MarketMaker, UK Department of Agricultural Economics, Lexington, Kentucky, (859) 257-7272, ext. 223.

3. What meat products do Hispanic consumers prefer?

Product preference (species, lamb or goat, ewe or doe, age and weight of the harvested animal) is highly dependent on the both the consumer's country of origin, region within the country, and socioeconomic status.

Researchers have observed that Hispanics spend 15 to 20% more of their disposable income on food than do most American households. The Mexican consumer in general is most likely to purchase lower-price imported sheep and goat products, and sheep and goat meat may in some cases be consumed in small quantities on a regular basis. Both quantity and quality is often sacrificed for price. However, there are locally produced products that will specifically fit this market. As an alternative to the lower quality imports, a similarly priced superior Kentucky product is the mature ewe/doe bone-in chunks, chops, and stew meat. These mature cull animals can be purchased at \$0.50 to \$0.80 per pound live weight and have been successfully marketed at \$2.39-\$2.79 after processing and vacuum packing. These products can be sold fresh or frozen.

Larger quantities and more expensive cuts are generally reserved for special occasions or when financial resources are available. Expensive cuts are often offered as an appetizer prior to the main meal of the day. Recent research conducted by the University of Kentucky, Kentucky State University, and the Kentucky Department of Agriculture indicated that meat price is the predominant factor for most Hispanic consumers. They may prefer lamb and goat, but chicken and pork are often more affordable. Use in advertising of a marketing phrase such as "locally produced and processed in a clean and healthy environment "can be a key marketing point.

The less expensive cuts can also be marketed as a value added, pre-cooked product. Many Hispanic grocery stores have buffet style lunch counters where bone-in goat meat has been observed selling at \$3 per pound pre-cooked as an eat-in or carryout dinner.

The most popular cuts are from fresh—not frozen—young animals weighing 25 to 55 pounds fresh carcass weight. Goat cuts are often sold as whole, half, or quarter carcass cuts. Smaller cuts are sold as legs, shoulders, ribs, ground meat, stew meat, organ meat, and head.

4. How do you market lamb and goat to Hispanic grocery stores, restaurant and other outlets?

Knowledge of the size of the retail outlet and its sales volume are important considerations. Sales in small-scale, local Hispanic grocery store will likely be low on a day-to-day basis due to the limited traffic. Recent research conducted by the University of Kentucky, Kentucky State University and the Kentucky Department of Agriculture estimates average sales volume for lamb and goat meat will likely be less than 50 pounds per month for most small stores. By contrast, large Hispanic groceries in major

Kentucky cities will sell in the range of 200 pounds of fresh goat meat each week.

The larger stores will purchase whole carcasses, keep them in coolers, and cut the meat as needed. For small outlets, deliver the product frozen in small vacuumed packed cuts, because a large quantity of fresh meat might expire before it's sold. The small-scale retailer will likely keep the meat frozen until it's purchased by the consumer.

A market delivery agreement between you and the retailer is another way to market your product. With the agreement, fresh cuts can be ordered on an on-call basis to provide the consumer with a fresh, non-frozen alternative. This method may be effective when local meat availability is high. As animal numbers decline in the winter, delivery on an on-call basis becomes more challenging for most processors. The retailer should perhaps be required to pay a deposit on these types of orders.

Large, high-volume store owners are willing to take some risk by purchasing locally produced and processed meat. Smaller store owners are more hesitant. Because of reluctance to purchase product locally, and because it's difficult for farmers and meat processors to develop a trusting relationship with a significant number of store owners, consider distributing product through an established Hispanic-based food broker or distributor. Marketing to small retailers through established Hispanic food distributors can eliminate some of the challenges involved, since the meat you have available to sell could be distributed to many small outlets, making the total sales potentially higher. Perhaps a relationship can be forged with a single Hispanic food distributor working in the region of the state you're targeting.

5. What advertising methods work?

In general, mass media is best, especially local Hispanic radio and TV stations. Advertising can also be purchased on international Mexican TV stations. Newspapers are reported to be the least effective medium.

In small stores where the product is stored in small freezers, attractive signage becomes extremely important in advertising the unseen product. The signage should be large, written in Spanish and English, and in bright colors with pictures of live sheep or goats. Advertising should focus on the seasonal availability of the product, since sheep and goats are seasonal breeders and the majority of the product is ready for market in the late spring and summer and declines in the fall and winter. The advertising should state when, where, and what the processor is offering for sale, using the phrases "fresh," "locally grown," and "locally processed in a clean and safe environment."

6. What are some of the other challenges of marketing to small-scale Hispanic retail outlets?

Often, Hispanic owners are not available at the grocery store or restaurant. They are frequently involved in several businesses activities. The most likely time to speak directly to the owner is early in the morning, when the store opens, or late in the day, before closing the store at night.

In many cases, communication between the store owner and store employees is limited. Most employees and family members do not have information about the business, so you will need to speak directly with the owner to forge a meaningful agreement.

When defining an agreement, you'll need someone on your behalf who speaks and writes Spanish. It's cost effective to employ a professional translator. A good one may cost as much as \$30 per hour

7. What cuts of meat do your consumers want, and at what times of the year do they want it?

Sheep and goat meat products generally will not be consumed daily. They are, however, valued for special events, holidays, and other celebrations. Currently the Hispanic market wants whole carcasses. The weight and sex of the carcass desired will vary from holiday to holiday and by ethnicity. The Hispanic culture generally prefers a young kid often referred to as *cabrito*, weighing less than 60 pounds, but during holidays or other celebrations a more specific type of goat is desired (more information below).

Special occasions observed by the Hispanic population in Kentucky include religious and civic holidays, weddings, birth of children, birthdays (a number of birthdays are often group together and celebrated jointly), grade school and high school graduations, and funerals. .

Information about Meat Products Desired for Specific Holidays

Christian Holidays (Epiphany, Easter (Western or Greek), Christmas

The most desired goat is a young (less than 3 months old), milk-fed kid weighing less than 30 pounds, according to the Pennsylvania State University Ethnic Holiday Calendar. Consumers are often disappointed by the meat yield of these carcasses due to the high bone- to-meat ratio. Therefore, a weight range of 20 to 50 pounds is acceptable, but 30 pounds is the most desired. Please note that young, milk-fed goats fitting this description can be rare or difficult to obtain as they must be produced outside the normal breeding season.

Civic Holidays (Mexico and Latin America)

For civic holidays, most people in the Mexican culture and other Latin Americans prefer a milk-fed goat weighing less than 30 pounds live weight for civic holidays. They

also prefer a slightly older goat, a young kid with no more than one set of adult teeth for the Independence Day (July 4) celebrations. The Caribbean culture desires an older, male animal (buck), weighing 60 to 80 pounds for the Jamaican Independence Day (August 6) celebration because it is more malodorous.

Dressing Percentage

Consumers often have questions concerning the amount of meat a typical animal will provide. The amount of the live weight that will enter the cooler in the form of a carcass is referred to as the “dressing percentage.” The dressing percentage can be calculated as:

$$(\text{Hot Carcass Weight} \div \text{Live Weight}) \times 100$$

The average dressing percentage for shorn sheep will be 50 to 53%. Goats will average between 45 and 50%. Many factors that can affect the dressing percentage of meat animals, such as when the live weight was recorded, gut fill, horns, fleece covering, etc.

In addition, lamb and goat have a limited amount of fat covering the carcass, making the carcass more susceptible to evaporative cooler loss thus creating an adding source of weight loss. Fresh meat is primarily water (70 to 75%) and coolers have lower humidity environments with constant circulating air. Commonly, sheep and goat carcasses will lose 8 to 10% of their hot carcass weight during the first 24 hours postmortem due to evaporative cooling.

Sheep and goat carcasses have a similar appearance. Some ethnic groups will not purchase a goat carcass unless the head remains on the carcass,. The USDA may require the horns to be removed before the carcass will pass inspection.

The lean meat yield of a typical carcass will vary from animal to animal. Consumers wanting younger animals for holiday celebrations should be made aware that the lean meat yield will be less than that of an older animal. The skeleton is one of the first tissues to reach maturity, so younger animals will have a higher bone-to-lean meat ratio compared to older animals.

Goat Carcass Fabrication

Currently the Hispanic desires a whole carcass that can be barbecued on a spit or roasted whole. Other markets prefer the entire carcass to be cut into 2-inch cubes. Louisiana State University worked closely with the USDA to develop institutional meat purchasing specifications (IMPS) for goats. Fabrication—how the carcass is broken down for sale—differs with the size of the carcass and the needs of the consumer. Fabrication specifications for each style of goat carcass can be found at

<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELDEV3003291>

or

<http://www.lsuagcenter.com/NR/rdonlyres/B8FE3706-64DC-417F-A592-B8DEC14B4D9F/43292/pub2951MeatGoatJanuary2008LOWRES.pdf>

Platter-style goats are basically left whole and should be carcasses weighing less than 20 pounds, roasting style is 15 to 30 pounds, barbecue style is 20 to 40 pounds, food service is more than 30 pounds, hotel style more than 40 pounds.

The following is an abridged listing of major Mexican, Central and other South American civic and religious holidays.

Major Mexican and Other Latin American Holidays				
Date	Originating Country/Region	Type of Celebration	Celebration Name	Description of Traditions
Jan 1	Latin America	Religious and Civic	New Year's Day/New Year's Eve (Año Nuevo)	Families attend mass and have dinner.
Jan 6	Latin America	Religious	The Day of the Three Kings, or the Feast of the Epiphany (Día de Los Reyes Magos)	In much of Latin America, this holiday is more important than Christmas, the day of adoration of the baby Jesus.
March 21	Mexico	Civic	Birth date of Benito Juarez	Juarez was one of Mexico's most-loved presidents.
March 31	Mexico	Civic	Cesar Chavez holiday	Cesar Chavez's birthday is celebrated to honor an American labor and civil rights giant.
March/April	Latin American	Religious	Holy Week (La Semana Santa)	One of the highest holy days of the year, Easter for Latino Catholics.
May 5	Mexico	Civic	Cinco de Mayo	Cinco de Mayo commemorates victory of the Mexican Army of 4,500 over 6,500 French in the Battle of Puebla, 1862.
May 10	Mexico, Latin America	Civic	Day of the Mothers (Día de Las Madres)	Mexican Americans may celebrate the holiday on May 10 even if the day falls in the middle of the week or on the day that the U.S. celebrates, always a Sunday.
Sept16	Mexico	Civic	Mexican Independence Day	In 1810, Father Miguel Hidalgo called to his people to revolt against 300 years of Spanish rule. It marks the start of an 11-year war.
Nov 2	Mexico, Central America	Religious, Civic	Day of the Dead, or All Souls' Day (El Día de los Muertos)	The holiday is for celebrating and honoring one's ancestors. On this day, it is said that the spirits of the dead come

				back for family reunions.
Nov 20	Mexico	Civic	Annivesary of the revolution of 1910	November 20 marks the anniversary of the 1910 revolution against dictator Porfirio Diaz and ranks among the most important Mexican holidays.
Dec 12	Mexico	Religious	Feast Day of Our Lady of Guadalupe (Dia de la Virgen de Guadalupe)	Our Lady of Guadalupe, named patron saint of the Americas by Pope John Paul II, and is symbol of the marriage of European and Indian blood and beliefs.
Dec 16-24	Mexico, Latin America	Religious	Las Posadas	The celebration commemorates Mary and Joseph's search for a place to stay in Bethlehem.
Dec 24-25	Mexico, Latin America	Religious	Christmas Eve/Christmas (La Nochebuena y La Navidad)	Latinos celebrate Christmas Eve and Christmas with a mixing of old country and U.S. traditions, attend midnight Mass and cooking meals that often take days to prepare.

Marketing Food Products to Hispanic Consumers in a Small Scale Agricultural Setting

Data

Data were collected from a 2010 Hispanic consumer survey conducted in various Kentucky counties that have a high Hispanic concentration: Shelby, Jefferson, Franklin, and Fayette. The survey instrument was a questionnaire in Spanish that elicited information about general shopping habits, willingness to purchase foods directly from a farm or a farmer, various product buying preferences, and consumer demographics. Featured products include pigs, chickens, meat-goats, fish, and crustaceans that are all cultured in Kentucky. The total number of respondents was 144. Appendix 1 contains the English version of the survey.

Results

General Results

Table 1 contains a summary of respondent demographic characteristics. These results were juxtaposed to corresponding 2007 U. S. Hispanic population demographics, for comparison purposes. Table 2 contains various results pertaining to grocery shopping habits and willingness to buy food products from farmers. Forty-three percent of respondents and 30% of respondents considered large chain supermarkets, such as Wal-Mart and Kroger, respectively, to be their main grocery outlet, followed by 14% of respondents using smaller chain-groceries such as Save-A-Lot as their main outlet. Only 10% of respondents considered Hispanic stores to be their main grocery outlet; however, 72% of respondents made 2 or more trips to Hispanic grocery stores per month. Forty-seven percent of respondents bought groceries during the week, while 39% bought groceries during weekends only. Fifty-five percent of respondents spent \$300 or less per month on groceries, which corresponds to 52% of respondents reporting an annual household income of \$20,000 or less.

A major impetus of this study was to investigate the willingness of Hispanic consumers to purchase food, often in an unprocessed condition, directly from farmers or at a farm. Seventy-two percent of respondents were willing to travel to a farm to buy fresh food products; although, 16% reported that they did not have the necessary transportation. Twenty-four percent of respondents (35 individuals) were willing to travel to farms within a 5 mile radius of their residence while a total of 72% of respondents (104 individuals) were willing to travel to farms within a 20 mile radius of their residence.

Meat-Goat Marketing Results

Most of the respondents indicated that they have not bought live goats in Kentucky; only 19 individuals (13%) indicated that they have purchased Kentucky live goats before. However, 63 individuals (48%) said that they would like to buy live goats directly from Kentucky farmers in future. The survey also inquired if respondents were willing to slaughter their own goats: the results showed that 41 respondents (29%) were willing, while 83 respondents (58%) were not willing. The respondents who purchased live goats reported the prices they paid for their animals (both juveniles and adults). These prices were summarized as two histograms and illustrated in Figure 1. These histograms show that the majority of respondents who bought live juvenile goats have paid \$80/head or less and the majority of individuals who bought live adult goats have paid over \$100/head.

The survey characterized the goat products that consumers wanted to purchase. For example, consumers were asked if they preferred male goats or female goats. Results show that 13% preferred males, 4% preferred females, and 29% of respondents did not care about the gender of the goats that they were willing to buy. Twenty-eight respondents (19%) said that they

prefer to buy only live adult goats, 25 respondents (17%) wanted juvenile goats only, while 5 respondents (4%) were willing to buy live adults or juveniles.

Consumers were asked what various goat products they buy for eventual at-home cooking: Table 3 summarizes the results. A total of 82 individuals answered the question. Among these answers, a whole carcass was the most popular product form, followed by “other” goat meat products (e.g., cubed meat) and live goats.

Consumers were asked how often they would purchase live goats in a typical year. Eighteen respondents (13%) indicated one goat per year; 26 respondents (18%) indicated two goats per year; 14 respondents (10%) said 3 goats per year, and 8 respondents (6%) said 4 or more goats per year.

The data were analyzed to verify any systematic relationships between consumer characteristics and goat meat preferences. Significantly higher percentage of respondents with a family member in an agricultural occupation had bought live goats in Kentucky (Chi-squared test statistic with 1 df = 3.98, P = 4.60%). Similarly, respondents who have stated a willingness to travel to a farm to buy food products had bought live goats in Kentucky at a significantly higher rate (Chi-squared test statistic with 1 df = 7.10, P = 0.77%). In addition, consumers who stated a willingness to support producers bringing farm products to their communities for sale showed that they bought live goats at a significantly higher rate (Chi-squared test statistic with 1 df = 3.63, P = 5.67%).

It was hypothesized that consumers who have their families in Kentucky would be more willing to buy live animals because of the consumption requirement associated with the sheer volume of meat from butchering a goat. This hypothesis was justified by our data which showed that consumers with families in Kentucky had bought live meat-goats at a significantly higher

rate (Chi-squared test statistic with 1 df = 8.17, P = 0.43%). Our analyses found that individuals who bought live chickens also bought live goats at a significantly higher rate (Chi-squared test statistic with 1 df = 6.65, P = 0.99%). This result was extended to consumers who bought live pigs: they also bought live goats at a significantly higher rate (Chi-squared test statistic with 1 df = 4.52, P = 3.35%)

A survey variable called “willingness to buy live goats in future” was analyzed to discover consumer characteristics associated with respondents who demonstrated a significant higher proclivity to buy live goats. The results were very similar to the above results: 1) consumers who were willing to travel to a farm for food products were significantly more willing to buy live goats (Chi-squared test statistic with 1 df = 10.79, P = 0.10%), 2) consumers who have bought live chickens were significantly more willing to buy live goats (Chi-squared test statistic with 1 df = 14.90, P = 0.01%), 3) consumers who have bought live pigs were significantly more willing to buy live goats (Chi-squared test statistic with 1 df = 10.71, P = 0.11%), and 4) consumers with families in Kentucky were significantly more willing to buy live goats (Chi-squared test statistic with 1 df = 6.63, P = 1.01%).

Figure 2 illustrates a frequency distribution of stated WTP for juvenile and adult goats by the respondents. Clearly, many respondents were unwilling to buy live goats: 44% and 45% of respondents were unwilling to buy live juvenile and adult goats, respectively. Among those that were willing, 21% indicated that they would pay a maximum of \$100 per adult goat, followed by 18% who indicated that they will pay up to \$40 for a live adult goat, which was the lowest price on the payment card. Among those willing to buy live juvenile goats, 27% indicated that they would pay up to \$40 for an animal, and an additional 18% indicated that they would pay a maximum of \$50 and \$80, respectively for a live juvenile goat. These stated WTP figures should

be compared with the actual prices reported in Figure 1, which shows a relatively large proportion of live goat buyers paying \$100/adult goat and \$70-\$80 for a juvenile goat.

Table 4 reports the results of the maximizing the likelihood function identified in equation (7) related to the WTP for live adult goats. The variables in Table 4 (except for the income variable), in aggregate, comprise the “X” vector in equation (7). These variables refer to consumer demographics and food shopping habits. Among various demographic parameters, household situation and occupation were represented. Household situation was represented by the variable “Child”, which captured any potential effects of families with children under the age of 18, on live adult goat buying preferences. Occupation was represented by “AgOccup” variable which captured the any potential effects of having a family member with an agricultural occupation on live adult goat buying preferences. Other demographic parameters such as age, education level, total household income, country of origin, etc. were excluded from the likelihood function model because of the low variability in responses (Table 1). Grocery shopping behavior was postulated to impact willingness to buy meat-goats; variables related shopping behavior used in the WTP model were: “GoToFarm” which indicated if respondents were willing to travel to a farm to purchase food products, and “FarmToComm” which indicated if respondents would buy from vendors bringing food products directly from a farm to Hispanic communities.

By observing the P-values of the estimated coefficients in Table 4, it is clear that the strong significance of the α_1^{\wedge} term shows that the respondents were sensitive to the price of adult meat-goats. Using the indirect consumer utility function in equation (1) α_1^{\wedge} is interpreted to be the reduction in utility associated with a unit increase in the product price.

Table 4 shows that $\alpha_{\text{GoToFarm}}^{\Lambda}$ was significantly different from zero at the 1% level of significance, with a positive value. This means that, ceteris paribus, respondents who were willing to travel to a farm to buy food products were much more likely to buy live adult meat-goats from producers. Similarly, $\alpha_{\text{FarmToComm}}^{\Lambda}$ was significantly different from zero, with a positive value. This indicates that respondents who prefer that farm products be brought to their communities were more likely to pay for live adult goats.

Table 5 reports the results of the maximizing the likelihood function identified in equation (7) related to the WTP for live juvenile goats. The demographic and “grocery buying” variables in Table 5 were identical to those in Table 4. The results were also similar to Table 4: 1) the income coefficient was significantly different from zero and positive, indicating that consumers were sensitive to prices of live juvenile goats, 2) the coefficient of “GoToFarm” was significantly positive, indicating that consumers willing to travel to farms for food are more willing to pay more for live juvenile goats, and 3) the coefficient of “FarmToComm” was significantly positive, meaning that consumers preferring farm products to be brought to their communities for sale were more likely to pay for live juvenile goats

Using the coefficient estimates in Tables 4 and 5, a predicted average true WTP for live adult and juvenile goats was calculated to be \$88.92/head and \$73.77/head, respectively. Since Hispanic consumers who wanted to buy foods directly from a farm, whether by traveling to the farm or have the farmer bring the food products to their communities, showed a willingness to pay more for live goats, the predicted true WTP was calculated for these consumer groups. Recalculating predicted true WTP by holding the “GoToFarm” dummy variable (Tables 4 and 5) at 0 and then at 1, ceteris paribus, consumers willing to travel to farms to buy food products were willing to pay a premium of \$42/head and \$19.43/head for live adult and juvenile goats,

respectively, over other consumers. Similarly, consumers willing to buy food products from producers/vendors bringing farm products directly to Hispanic communities were, *ceteris paribus*, willing to pay a premium of \$40.58/head and \$55.40/head for live adult and live juvenile goats, respectively, over other consumers.

Aquaculture Marketing Results

Respondents indicated a strong desire to purchase various fish and crustaceans from Kentucky producers. Table 6 lists various Kentucky aquaculture products in decreasing order of popularity. It is remarkable that 84% of respondents were willing to purchase locally-grown tilapia and 48% of respondents were willing to buy freshwater prawns. This is encouraging news for small-scale aquaculture producers in Kentucky, some of whom are experienced in tilapia-freshwater prawn polyculture in small ponds to supply a direct-sales market (Danaher et al. 2007, Danaher et al. 2004).

Table 7 lists preferred product forms for fish by Hispanic consumers in decreasing order of popularity. It is noteworthy that respondents indicated that whole fish was highly preferred (80% popularity) followed by fresh fillets (48% popularity). Simultaneously, frozen fillets, at 16% popularity were not very sought after items.

Table 8 reports various preferred outlets for buying local aquaculture products. While supermarkets were the most popular outlet, they are not very practical for small-scale producers because of underlying price markups associated with supermarket sales that make local products unaffordable to most consumers. However, Table 8 shows that 35% of respondents were willing to buy local aquaculture products from a farm. Arguably, these consumers will also buy the same products if the farmer brought the seafood items to their communities. This is a powerful revelation for small-scale producers seeking direct-to-consumer markets. Interestingly, no

respondent wanted to go to a farmers' market. The commonly-proffered reason was language barrier: most farmers' market vendors did not speak Spanish.

We investigated additional identifying characteristics of respondents who indicated preference towards buying live tilapia. Contingent table analyses was used to determine that respondents indicating a preference to travel to a farm to obtain fresh foods have a significantly higher proclivity to buy live tilapia ($P = 8.13\%$). Consumers who use Hispanic stores as their main grocery source also showed a significantly higher willingness to buy live tilapia ($P = 0.7\%$).

Figure 3 illustrates a probability distribution of the stated WTP by the respondents for a 2-lb live tilapia. Tilapia was chosen because this fish is highly popular in Hispanic communities and Kentucky producers with farm ponds can, with relative ease, begin cage culture of tilapia. Clearly, \$4 (\$2/lb) was one of the peaks with 28% of respondents stating this WTP, followed by \$5.50 (2.25/lb). The weighted mean stated WTP was \$4.67 (\$2.33/lb) with a standard deviation of \$1.09 (\$0.54/lb). Only 7% of respondents did the respond to this question.

Statistical analyses found that consumers were highly sensitive about the price of tilapia. This was determined from observing the statistical significance of the term that included tilapia price in the consumer utility model.

Of the various demographic characteristics that could potentially influence the WTP for tilapia, we discovered that respondents who showed preference for farm products to be brought directly to their communities, and those respondents who had an agricultural profession significantly affected their true WTP for live tilapia. With all other factors kept the same, respondents who showed preference for buying farm products directly from farmers and

respondents with an agricultural profession were willing to pay more for live tilapia. Statistically evaluating the true WTP of a 2-lb live tilapia lead to the following results:

1. the overall predicted true WTP for a 2-lb live tilapia was \$5.14/fish (\$2.57/lb)
2. the predicted true WTP for live tilapia diminished by \$1.59/lb if the Hispanic consumer was not interested in buying fresh food directly from farmers
3. the predicted true WTP of consumers increased from \$5.14/fish (\$2.57/lb) to \$5.97/fish (\$2.99/lb) if the Hispanic consumer has a family member with an agriculture-related profession.

Pig Marketing Results

Surveyed consumers indicated their willingness to purchase live pigs. The focus was on live pigs because most small-scale producers find it cost-prohibitive to process pigs for customers. The data showed that although very few respondents have bought live pigs in Kentucky (4 affirmative responses; 6%), many more were willing to purchase live pigs from Kentucky's producers (42 affirmative responses; 29%). However, proportionately fewer respondents were willing to butcher pigs by themselves: only 19 respondents (13%) were willing to process pigs.

Respondents were asked to indicate their size preferences for live pigs. Table 9 contains the results of this question. Of the total 50 (35%) respondents who answered with a size preference, more than half (27) preferred pigs between 10 lbs and 40 lbs. Adult pigs (approximately 100 lbs or more; breeding hogs are often 240-270 lbs) were the next most popular size class with 13 respondents choosing this size.

Respondents indicated how often they would be willing to buy live pigs from farmers. Nineteen respondents (13%) reported they will buy pigs once a year, while an additional 22

respondents (15%) said that they will buy twice per year. Only 6 respondents (4%) said that they will buy live pigs three times, or more, per year. The remaining 67% of the respondents declined to answer this question.

Statistical analyses investigated if certain consumer characteristics were associated with respondents who exhibited a willingness to buy live pigs. The data showed that 63% of respondents had spouse and children living with them in Kentucky. Correspondingly, respondents with families living with them were significantly more willing to buy live pigs (Chi-squared test statistic, 1 df, was 6.45; P=1.11%). Respondents who were willing to travel to farms to purchase fresh foods also showed a significantly higher proclivity to buy live pigs (Chi-squared test statistic, 1 df, was 12.14; P=0.05%).

A Logit regression results corroborated our results above. The dependent variable was binary with a value of 1 indicating that the respondent is willing to buy live pigs; 0, otherwise. Table 10 lists the results of this regression which shows that a consumer's willingness to travel to a farm to purchase food, and having their family living with them in Kentucky significantly increased their likelihood of purchasing live pigs. However, consumers that spend \$500 or more on monthly groceries, on average, had a significantly lower willingness to buy live pigs.

Chicken Marketing Results

Surveyed consumers indicated their willingness to buy live chickens from Kentucky producers. Twenty five percent of respondents said that they have purchased live chickens in Kentucky. Forty six percent of respondents have also purchased whole processed chickens in Kentucky. The survey queried Hispanic consumers of their willingness to purchase live chickens if such products were available. The majority (52%) was willing, and 42% were unwilling.

Consumers also reported the potential sources of live chickens: 37% indicated that they preferred to buy live chickens at a farm, while 15% would buy live chickens at a Hispanic store. Interestingly, 31% of respondents indicated that they have already purchased live chickens from Kentucky farms. Hispanic consumer demand for live chickens could be quantified from a query about the number of chickens that consumers will buy, on average, per week. Sixteen percent of respondents will buy one chicken per week, an additional 22% will buy two chickens per week, and an additional 13% would buy 3 chickens per week.

The survey elicited information about preferred chicken types. The consumers could respond if they wanted a golden hen or rooster (typically, a Buff Orpington breed commonly kept in small-scale poultry operations), a black hen or rooster (typically, an Australorp or Jersey Giant breed commonly kept in small-scale poultry operations), or a white hen or rooster (typically, a Cornish cross breed commonly kept in small-scale poultry operations). Of the many responses, the Buff Orpington hen was the most popular type of live chicken, with 24 % of respondents exhibiting a preference for this type of bird.

Figure 4 shows the stated willingness to pay for a 5-lb live chicken. Clearly, many consumers indicated that they will pay between \$5 and \$10 for such birds. These data were used for a statistical analysis to develop the true WTP for live chickens. Results of a Maximum likelihood estimation model are reported in Table 11. These results show that two consumer characteristics significantly increased the likelihood to pay for live chickens: 1) if the respondent had an immediate family member with an agricultural occupation, they were willing to pay more for live chickens, and 2) if the respondent was supportive of buying food products from vendors who transported them directly from farms to Hispanic communities, then such consumers were

significantly more willing to pay for live chickens. Overall average true WTP for 5-lb live chickens was estimated to be \$6.28/bird.

Vegetable Marketing Results

Hispanic consumers were interviewed about the typical vegetables that they purchase. Their responses indicated that the commonly-used vegetables were: peppers (e.g., Serrano, habanero, and jalapeño), zucchini, white and yellow onions, corn, cucumbers, tomato, broccoli, and chayote squash. Typical herbs used by Hispanic consumers were: cilantro and oregano. Typical fruits purchased by Hispanic consumers were: watermelon, peaches, grapes, oranges, and apples.

Table 1. Distribution of demographic information expressed as a percentage of total respondents. U. S. Hispanic population demographics provided for comparison purposes.

N=144

	Our data ^a	U. S. Hispanic population ^b
<u>Gender:</u>		
Male	45%	51%
Female	47%	49%
<u>Age:</u>		
30 or less	41%	57%
31-40	31%	17%
41-50	13%	13%
51-60	3%	7%
61-65	1%	2%
66 or more	0%	4%
<u>Education:</u>		
High school or below	67%	71%
Technical	18%	— ^c
4-year degree or more	7%	10%
<u>Country of Origin:</u>		
Mexico	65%	65%
Honduras	6%	1%
Guatemala	4%	2%

Table 1. Continued.

	Our data ^a	U. S. Hispanic population ^b
<u>Country of Origin: Continued</u>		
El Salvador	3%	3%
Nicaragua	3%	1%
Other	9%	28%
<u>Household income:</u>		
Less than \$20K	52%	20%
≥\$20K but <\$30K	28%	15%
≥\$30K but <\$40K	10%	13%
≥\$40K but <\$50K	2%	11%
≥\$50K	2%	40%
<u>Occupation of breadwinner:</u>		
Agricultural industry	26%	7%
Labor	27%	27%
Sales	3%	14%
Management	6%	11%

^aPercentages do not always sum to 100% due to lack of responses from various completed questionnaires

^b2007 data from United States Census Bureau: <http://factfinder.census.gov>

^cData unavailable

Table 2. Food purchasing habits and preferences. N=144

Questions	Main Responses
Respondent is the principal grocery shopper	76%
Main grocery store is:	Wal-Mart (44%), Kroger (30%), smaller U.S. chain store (16%), Hispanic store (10%)
Number of grocery shopping trips per month	2-3 (38%); 4 (35%); >4 (15%)
Number of grocery shopping trips per month to Hispanic stores	0 (10%); 1 (16%); 2-3 (45%); 4 (15%)
Number of grocery shopping trips per month to farmers' markets	0 (69%); 1 (19%)
Grocery shopping times	Weekend only (39%); During week only (47%)
Grocery spending per month	\$0-\$199 (27%); \$200-\$299 (29%) \$300-\$399 (20%) \$400-\$499 (13%) \$500-\$599 (6%) \$600 or more (4%)

Table 2. Continued.

Questions	Main Responses
Are you willing (and/or able) to travel to a farm to buy food products?	Willing (56%); Not willing (21%); Willing but no transport (16%)
How many miles will you travel to a farm from your residence?	>0 & < 5 (24%); >= 5 & <10 (27%); >= 10 & <20 (21%)
Would you prefer vendors brought food products directly from farms to your community?	Yes (85%); No (9%)

Table 3. Meat-goat product forms purchased for at-home consumption N=144

Frequency	Frequency (Percentage ^a)
Live Animals	17 (12%)
Whole Carcass	41 (29%)
Live animals or whole carcass	1 (0.69%)
Leg	1 (0.69%)
Other processed cuts	22 (15%)

^aPercentages do not sum to 100% due to no responses to this question.

Table 4. Estimated coefficients from the maximum likelihood model associated with the true WTP for live adult goats. N=128.

Coefficient	Corresponding variable ^a	Estimated coefficient	P-value
α_I^A	Income variable in the indirect utility function	0.52	0.00 ^c %
α_{Child}^A	Dummy variable ^b Child = 1 if respondent has children under 18 at home	0.31	55.74%
$\alpha_{AgOccup}^A$	Dummy variable AgOccup = 1 if respondent's family has at least one person with an agricultural occupation	-0.54	26.30%
$\alpha_{GoToFarm}^A$	Dummy variable GoToFarm = 1 if respondent is willing to travel to a farm to buy fresh food products	2.22	0.42 ^c %
$\alpha_{FarmToComm}^A$	Dummy variable FarmtoComm = 1 if respondent is willing to buy farm products if they are brought to their communities	2.13	0.46 ^c %
Value of the maximized log likelihood function			-158.41

^aThis column defines the independent variables in the maximum likelihood model that corresponds to each parameter

^bDummy variable is defined as a dichotomous variable that takes a value of zero or one; it is equal to one if the corresponding observation satisfies a specific condition

^cCoefficient estimate is significantly different from zero for Type I error probability = 1%

Table 5. Estimated coefficients from the maximum likelihood model associated with the true WTP for live juvenile goats. N=128.

Coefficient	Corresponding variable ^a	Estimated coefficient	P-value
α_I^J	Income variable in the indirect utility function	0.92	0.00 ^c %
α_{Child}^J	Dummy variable ^b Child = 1 if respondent has children under 18 at home	-0.10	88.65%
$\alpha_{AgOccup}^J$	Dummy variable AgOccup = 1 if respondent's family has at least one person with an agricultural occupation	0.35	54.53%
$\alpha_{GoToFarm}^J$	Dummy variable GoToFarm = 1 if respondent is willing to travel to a farm to buy fresh food products	1.78	6.95 ^d %
$\alpha_{FarmToComm}^J$	Dummy variable FarmtoComm = 1 if respondent is willing to buy farm products if they are brought to their communities	5.07	0.00 ^c %
Value of the maximized log likelihood function			-113.04

^aThis column defines the independent variables in the maximum likelihood model that corresponds to each parameter

^bDummy variable is defined as a dichotomous variable that takes a value of zero or one; it is equal to one if the corresponding observation satisfies a specific condition

^cCoefficient estimate is significantly different from zero for Type I error probability = 1%

^dCoefficient estimate is significantly different from zero for Type I error probability = 10%

Table 6. Types of seafood products that respondents would like to buy for at-home consumption. Each respondent was allowed to have multiple answers. N=142

Seafood type	Number of respondents	Percentage
Tilapia	119	84%
Freshwater prawns	68	48%
Bass	44	31%
Catfish	35	25%

Table 7. Types of seafood products that respondents would like to buy for at-home consumption. Each respondent was allowed to have multiple answers. N=142

Seafood type	Number of respondents	Percentage
Tilapia	119	84%
Freshwater prawns	68	48%
Bass	44	31%
Catfish	35	25%

Table 8. Preferred outlets for seafood purchases. Each respondent was allowed to have multiple answers. N=143

Seafood type	Number of respondents	Percentage
Supermarket	82	57%
Farm	51	35%
Hispanic grocery store	26	18%
Farmers' market	0	0%

Table 9. Size of pigs preferred by respondents. N= 144.

Size of pigs	Number of respondents exhibiting preference (percentage)
10 lbs or smaller	6 (4.17%)
>10 and ≤ 40 lbs	27 (8.75%)
Adult pig	13 (9.03%)
>10 and ≤ 40 lbs or adult	3 (2.08%)
Any sized live pig	1 (0.69%)

An additional 30% of respondents indicated that they would not purchase live pigs and the remaining 35% of respondents did not respond to this question.

Table 10. Results of a logistic regression on the willingness to buy live pigs by Hispanic consumers in Kentucky to identify systematic effects of demographic parameters^a.

	Regressors ^b					
	Intercept	AgOccup	GoToFarm	FarmToComm	FKY	SpendMore
Coefficient estimate	-4.63	0.33	2.62	0.76	1.08	-2.22
Standard error	1.49	0.49	1.06	1.16	0.54	1.08
P-value (%)	0.19	49.56	1.32	51.19	4.45	4.03

N = 123; Generalized R² = 0.21; LR test = 27.36 (P = 0.01%); Tau-a = 0.228

^aDependent variable: BuyLivePigs = 1 if respondents are willing to purchase live pigs from Kentucky producers; '0' otherwise.

^bAgOccup is a dichotomous variable which is '1' if a respondent has an immediate family member who has an agricultural occupation; '0' otherwise

GoToFarm is a dichotomous variable which is '1' if a respondent is willing to travel to a farm to purchase food products including live animals; '0' otherwise

FarmToComm is a dichotomous variable which is '1' if a respondent is willing to support vendors bringing food products from a farm to their community for sale; '0' otherwise

FKY is a dichotomous variable which is '1' if respondent's spouse and children lives with them in Kentucky; '0' otherwise

SpendMore= '1' if respondent spends \$500 or more, on average, on monthly groceries; otherwise it is '0'

Table 11. Estimated coefficients from the maximum likelihood model associated with the true WTP for a 5-lb live chicken. N=121.

Coefficient	Corresponding variable ^a	Estimated coefficient	P-value
α_I	Income variable in the indirect utility function	0.64	0.00 ^c %
$\alpha_{KillGoat}$	Dummy variable ^b KillGoat = 1 if respondent has shows willingness to process live animals such as goats	0.57	17.71%
$\alpha_{AgOccup}$	Dummy variable AgOccup = 1 if respondent's family has at least one person with an agricultural occupation	1.54	0.08 ^c %
$\alpha_{GoToFarm}$	Dummy variable GoToFarm = 1 if respondent is willing to travel to a farm to buy fresh food products	0.36	49.66%
$\alpha_{FarmToComm}$	Dummy variable FarmtoComm = 1 if respondent is willing to buy farm products if they are brought to their communities	3.65	0.00 ^c %
Value of the maximized log likelihood function			-179.43

^aThis column defines the independent variables in the maximum likelihood model that corresponds to each parameter

^bDummy variable is defined as a dichotomous variable that takes a value of zero or one; it is equal to one if the corresponding observation satisfies a specific condition

^cCoefficient estimate is significantly different from zero for Type I error probability = 1%

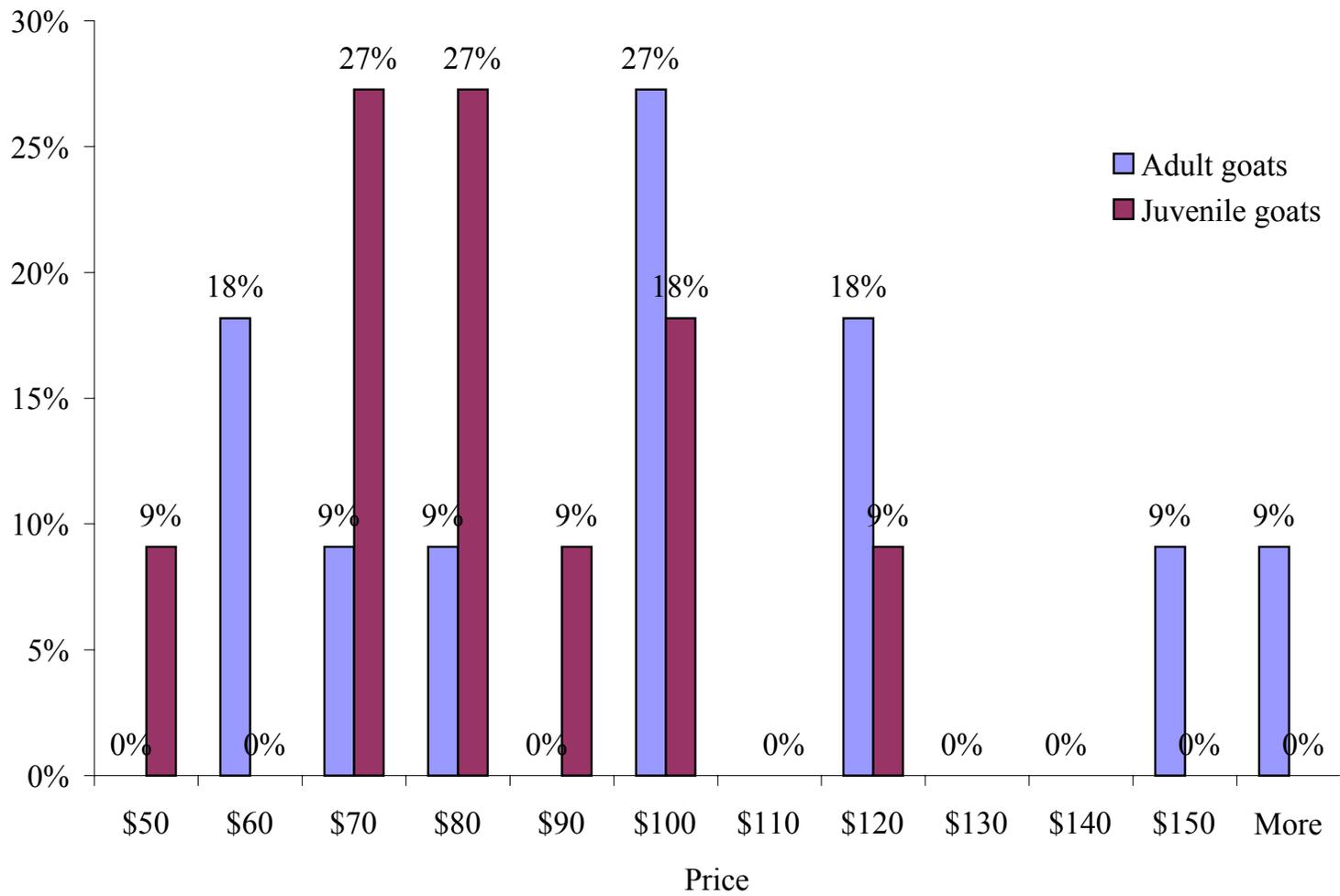
FIGURE LEGEND

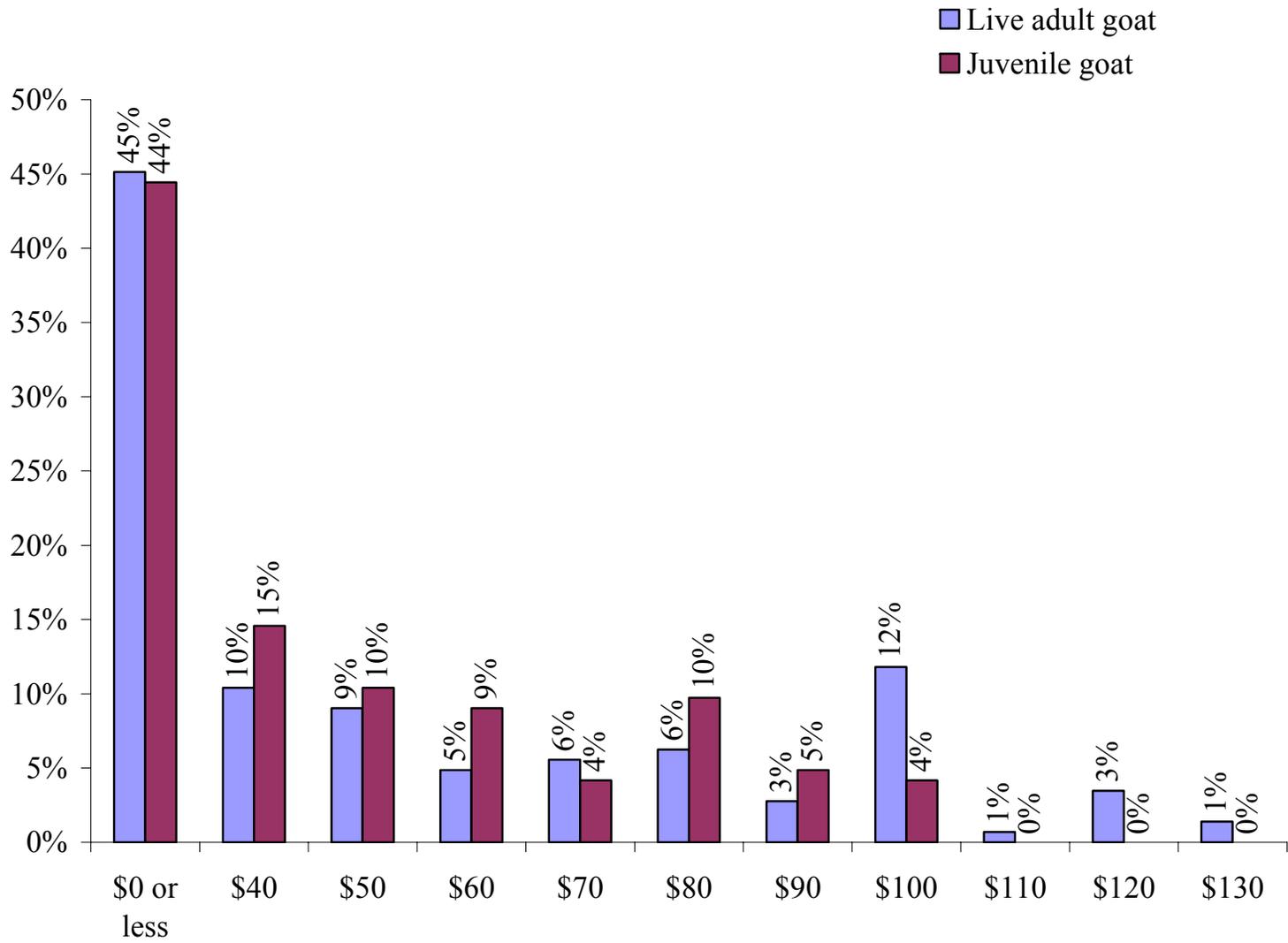
Figure 1. Frequency distribution of the prices paid by respondents for juvenile and adult goats that they have bought in the past from Kentucky producers.

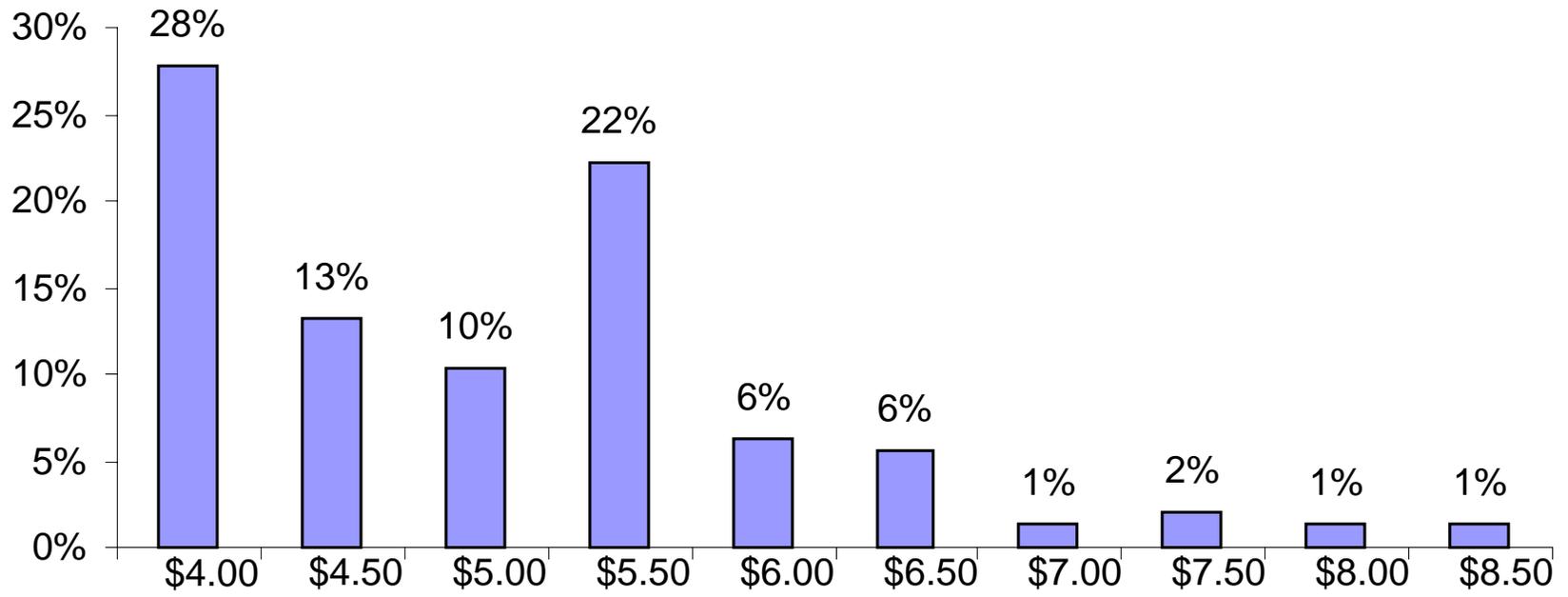
Figure 2. Frequency distribution of the stated willingness to pay for live juvenile and adult goats from Kentucky.

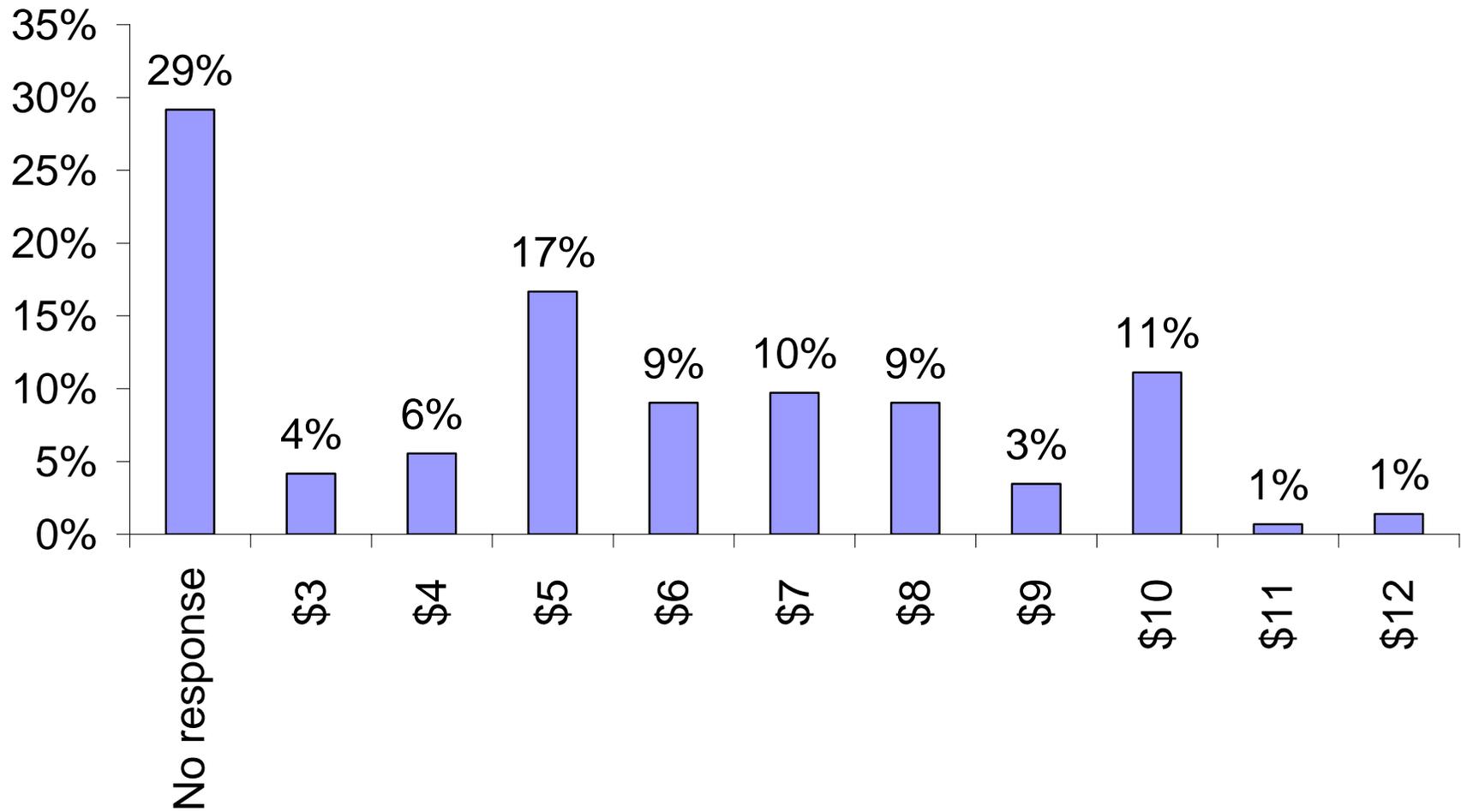
Figure 3. Probability distribution of the stated willingness to pay for a 2-lb live tilapia among Hispanic consumers in Kentucky. The prices are reported in “\$/fish” units.

Figure 4. Probability distribution of the stated willingness to pay for a 5-lb live chicken among Hispanic consumers in Kentucky. The prices are reported in “\$/bird” units.









Spanish Food Questionnaire (translated version)

Section 1: Buying Habits

1. Are you the principle buyer in the house (Circle One) **Yes** **No**

2. Normally where do you shop for groceries? (Please list the names of the stores)

3. How many times a month do you shop for groceries? _____

a. How many times a month do you shop at Hispanic stores? _____

b. How many times a month do you shop at farms or farmer's markets? _____

4. When during the week do you shop for groceries? (circle all that apply)

During the week **Weekend** **Morning** **Afternoon** **Night**

5. How much do you usually spend grocery shopping? (circle one)

(\$0-\$200) **(\$200-\$300)** **(\$300-\$400)** **(\$400-\$500)**

(\$500-\$600) **(\$600-\$700)** **(\$800-\$900)** **(>\$900)**

Section 2: Pork

6. Have you bought a live pig in Kentucky? **Yes** **No**
7. Would you like to buy live pigs? **Yes** **No**
8. Which size would you like to buy? (**Circle one**)



Up to 10 pounds



10 – 40 pounds



Adult

I wouldn't buy a pig

9. How many times a year would you buy a live pig? _____
10. Would you be willing to kill and process the pig yourself? **Yes** **No**

Section 3: Chickens

11. What type of chicken do you buy to cook at home? (Circle all that apply)

- Live chickens** **Whole chicken** **Breast** **Wings and thighs**
Liver **Gizzard** **Other** _____ **I don't buy chicken**

12. If live chickens were available, would you like to purchase them? **Yes** **No**

a. Where would you want to buy them? (Circle all that apply)

- Farm** **Hispanic store** **Farmer's Market** **Other** _____

b. Circle all that you would like to purchase

Hens:



Roosters:

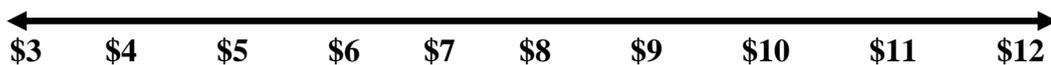


c. How many live chickens would you purchase each week? _____

d. Have you purchased a chicken from a farm before? **Yes** **No**

13. What would be the maximum price you would pay for a 5 pound live chicken?

Circle one: Would not buy chicken; OR



Section 4: Goats

14. What goat products do you buy to cook at home? **(Circle all that apply)**

Live animal **Whole carcass** **Leg** **Other** _____

I don't buy goat

15. Have you bought a live goat in Kentucky? **Yes** **No**

a. How big was it? **Adult** **Juvenile** **Baby**

b. How much did it cost? _____

16. Would you be willing to buy live goat from a farm? **Yes** **No**

17. Would you be willing to kill it yourself at the farm? **Yes** **No**

18. Circle all those you would like to buy



Adult



Baby 1-2 months



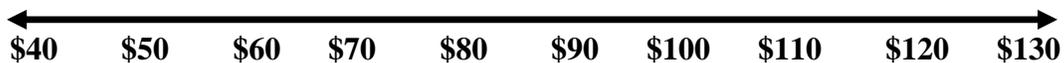
Juvenile 1-2 years

19. Which would you be willing to buy (Circle one) **Male/ Female/ Doesn't matter**

20. How many times a year would you buy a live goat or whole carcass? _____

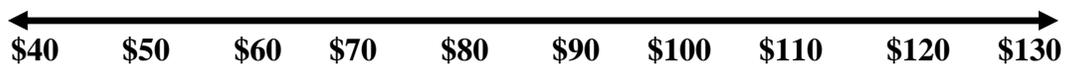
21. What is the maximum price you would pay for a live ADULT goat?

Circle one: Would not buy adult goat; OR



22. What is the maximum price you would pay for a live JUVENILE goat?

Circle one: Would not buy juvenile goat; OR

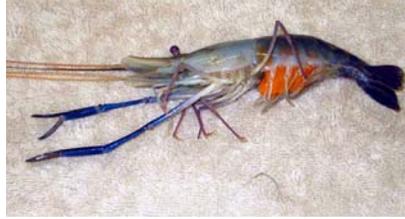


Section 5: Seafood

23. Which would you prefer to cook at home? (Circle all that apply)



Tilapia (Mojarra)



Fresh water shrimp



Bass



Catfish

24. How do you prefer to buy your fish? (Circle all that apply)

Alive Whole fresh filet Frozen filet

Salted fish I don't buy fish

25. Where do you prefer to buy your seafood? (Circle one)

Supermarket A farm Hispanic store Farmer's market

26. What would be the maximum price you would pay for a 2 pound live tilapia?

Circle one: Would not buy tilapia; OR



Section 6: Shopping habits

27. Are you willing and do you have the ability to travel to a farm to buy fresh products?

(Circle all that apply)

1. I would like to

2. I do not want to travel to a farm

3. I want to, but I do not have the ability to travel to a farm

a. How many miles are you willing to travel to a farm? (Circle one)

(0-5)

(5-10)

(10-20)

(more than 20 miles)

b. Would you prefer that the farmers brought the products to your community?

Yes

No

28. If a farmer could travel to your community to sell fresh product, where would you like them to sell? (Circle all that apply)

Close to a: **Local church**

A store

Your neighborhood from a truck

Section 7: Demographics

29. Please circle one **Male** **Female**

30. What country are you from? _____

31. What type of work does the primary breadwinner of the family do? (Circle one)

c. Agriculture

d. Manufacturing/ Industry/ Assembly

e. Sales

f. Education

g. Business/ Management

h. Professional

i. Government

j. Other: _____

32. How many people under 18 live in the house? _____

33. How old are you? (Circle one)

(Less than 30) (31-40) (41-50) (51-60) (61-65) (65 +)

34. Does your family (spouse/ children) live in Kentucky? **Yes** **No**

35. Approximately how many hours a week do you work? _____

36. Does someone in the home cook meals on a regular basis? **Yes** **No**

37. What is the highest level of education reached in the household? (Circle one)

High school Technical degree Four year degree Higher education

38. What is the annual income for the whole house? (circle one)

(Less than \$20,000) (\$20,000 a \$30,000) (\$30,001 a \$40,000) (\$40,001 a \$50,000)

(\$50,001 a \$60,000) (\$60,001 to \$70,000) (\$70,001 to \$80,000) (\$80,001 or higher)

SUMMARY OF HISPANIC FOCUS GROUPS

IMPORTANT TERMINOLOGY:

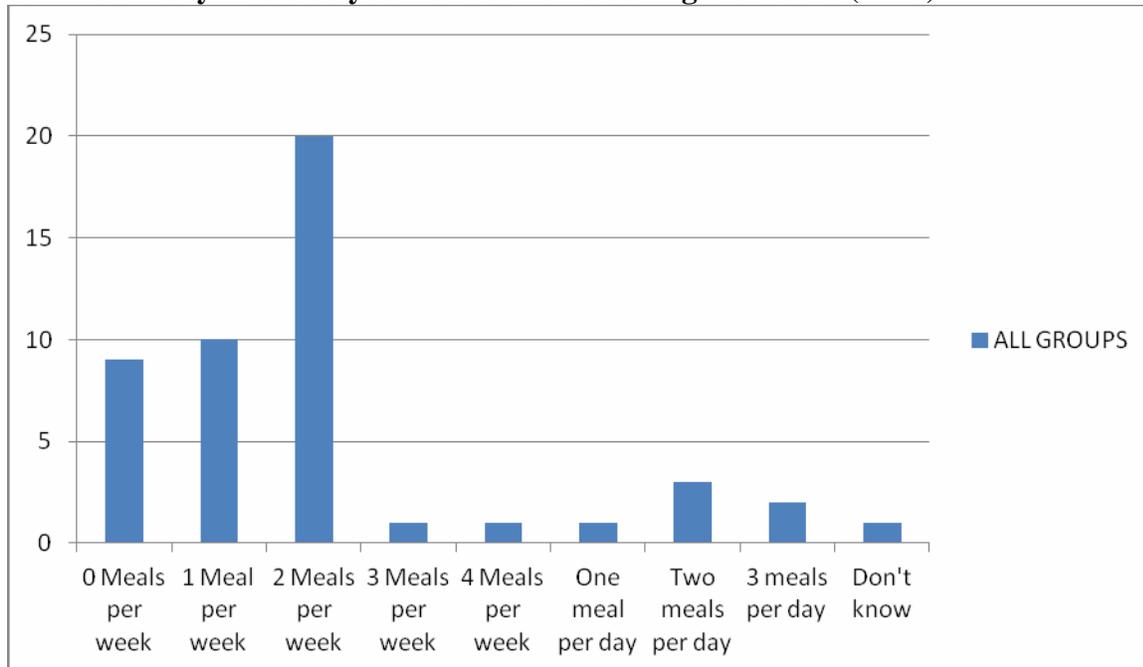
ALL GROUPS = Elizabethtown, Frankfort, Lexington, and Louisville focus groups

n = total number of persons that answered that question.

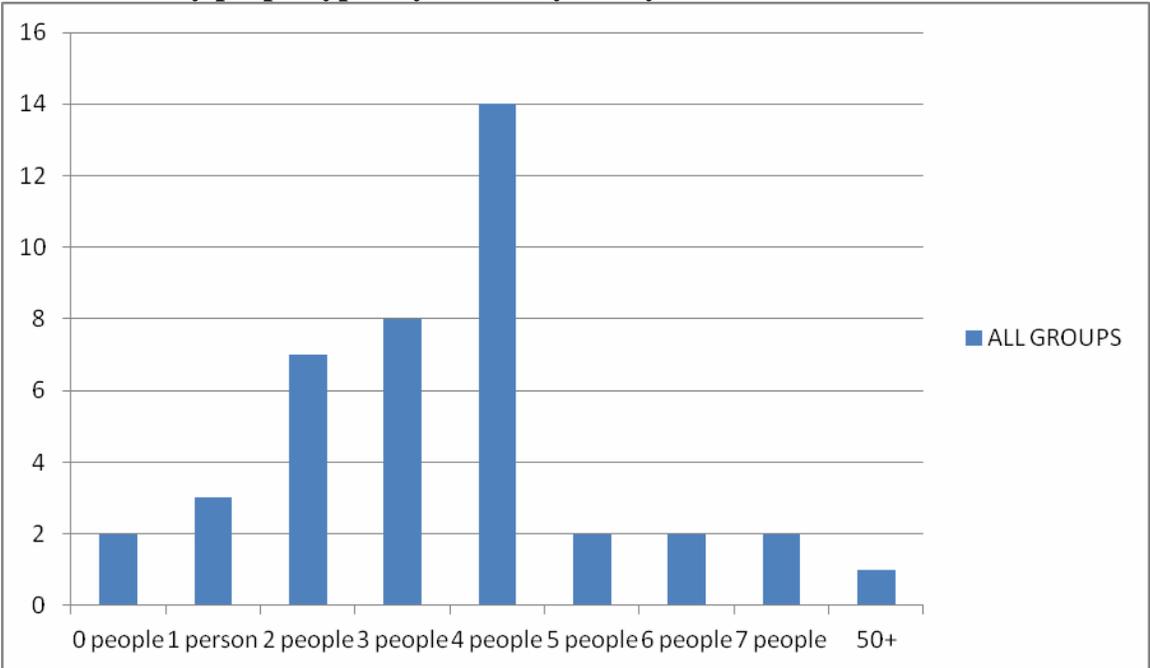
GENERAL CONCLUSIONS:

In general, the results from the focus groups showed that the Hispanic consumer would prefer to purchase fresh, local meats, vegetables, and fruits, but because of convenience and price, they in reality purchase these items from chain stores such as Wal-Mart and Kroger.

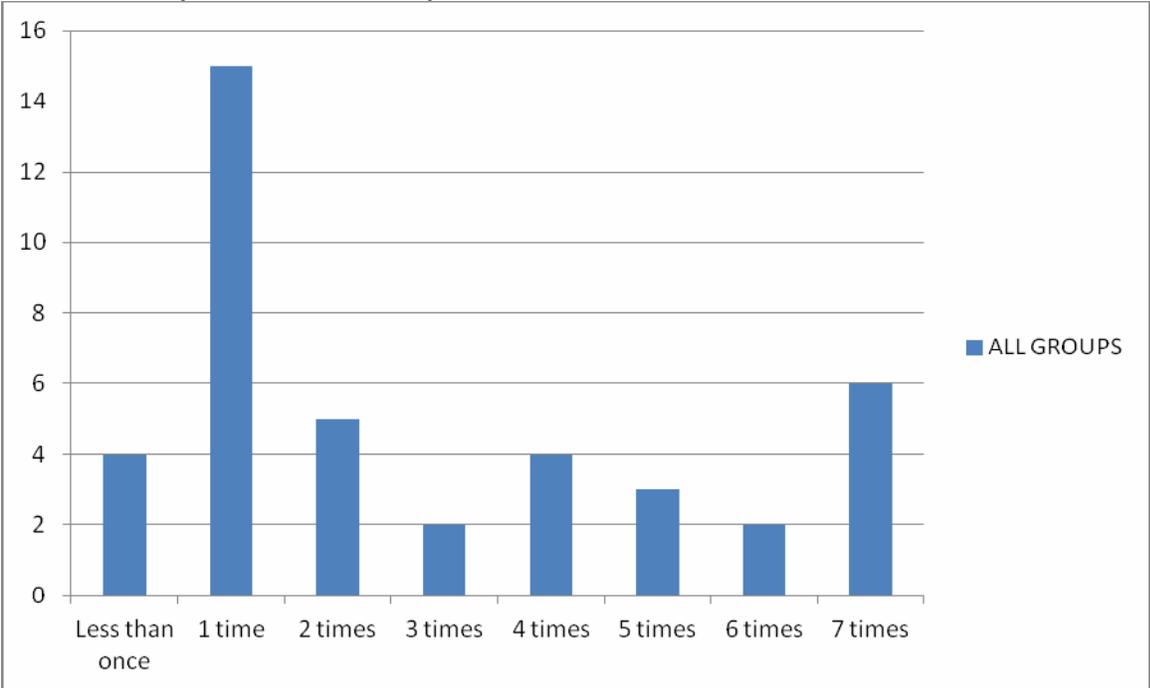
1. How many meals do you make at home during the week? (n=48)



2. How many people typically eat with you in your house? (n=41)



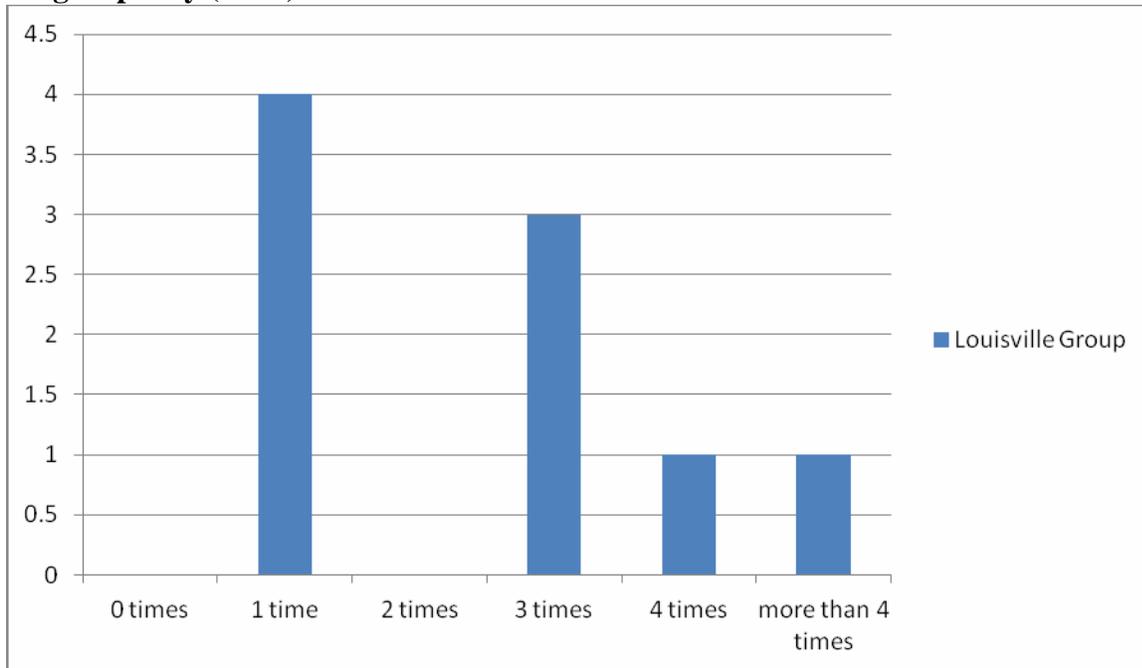
3. How many times a week do you eat at a restaurant? (n=41)



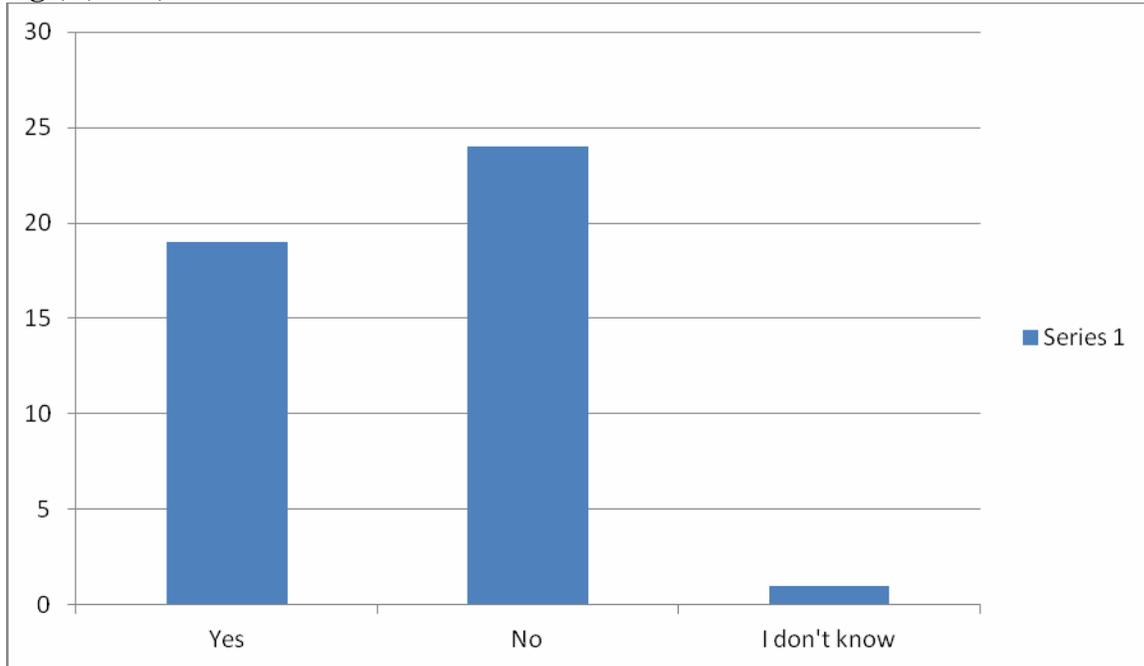
4. At what type of restaurant do you most like to eat? n=51

- Mexican - 23
- Chinese - 10
- American - 9
- Fast Food – 6
- Italian - 3

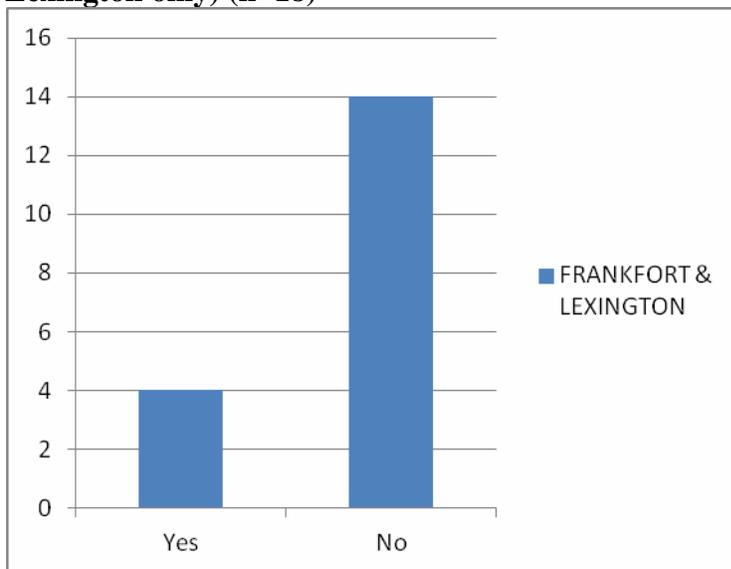
5. In a normal month, how many times would you go to a Mexican restaurant? - Louisville group only (n=11)



6. Have you ever seen the Kentucky Proud logo before?(Participants were then shown the logo) (n=44)



7. Do you know what this means?(The Kentucky Proud logo was shown) (Frankfort and Lexington only) (n=18)



8. How has lack of access to different types of foods In the US changed your cultural traditions?

- Everything here is DRASTICALLY different than at home.
- Stores here don't have fruit and vegetables we are looking for.
- Nothing is fresh here.
- Flavor here is different; food is greasy
- Animals taste different here because they are fed different. The animals are fed chemicals and it makes them taste different.
- Everything here is frozen – both meat and vegetables; we don't like this.
- “In Mexico, we kill the cow and take the meat and eat it. Here it was killed last year and the flavor is different.”
- Fruits and Vegetables are different here (U.S.). We can't find many of the fruits we like such as mangos.
- Imported fruits and vegetables are expensive. We don't understand this. In a country this large, why don't we have access to fresher, less expensive products?
- We can only find Mexican food here, and not food from other countries.
- Eat McDonald's because it's fast. We don't have much time here.

9. Which are the most effective ways to advertise? (all groups)

- T.V. - 17
- Hispanic stores/restaurants - 15
- Hispanic radio – 10
- Newspapers and Al Dia - 5
- Word of Mouth – 3
- American stores (Wal-Mart, Kroger) – 3
- Internet – 2

10. Where do you purchase these products most often? (all groups)

- **Meat**
 - Wal-Mart – 20
 - Mexican meat stores – 8
 - Kroger – 6
 - Save-a-lot – 5
 - Meijer – 3
 - Sam's Club - 1
- **Seafood**
 - Wal-Mart – 19
 - Kroger – 7
 - Mexican store – 3
 - Meijers – 3
 - Wherever fresher - 3
 - Chinese store – 2
 - Vietnamese store – 2
 - Sam's Club – 2

• **Vegetables**

- Wal-Mart – 20
- Kroger – 13
- Mexican stores – 3
- Save-a-lot – 3
- Farmer’s Market – 2
- Chinese store – 2
- Vietnamese store – 2
- Direct from a farm – 1
- “Wal-Mart’s product is 20 years old or at least it seems that way.”

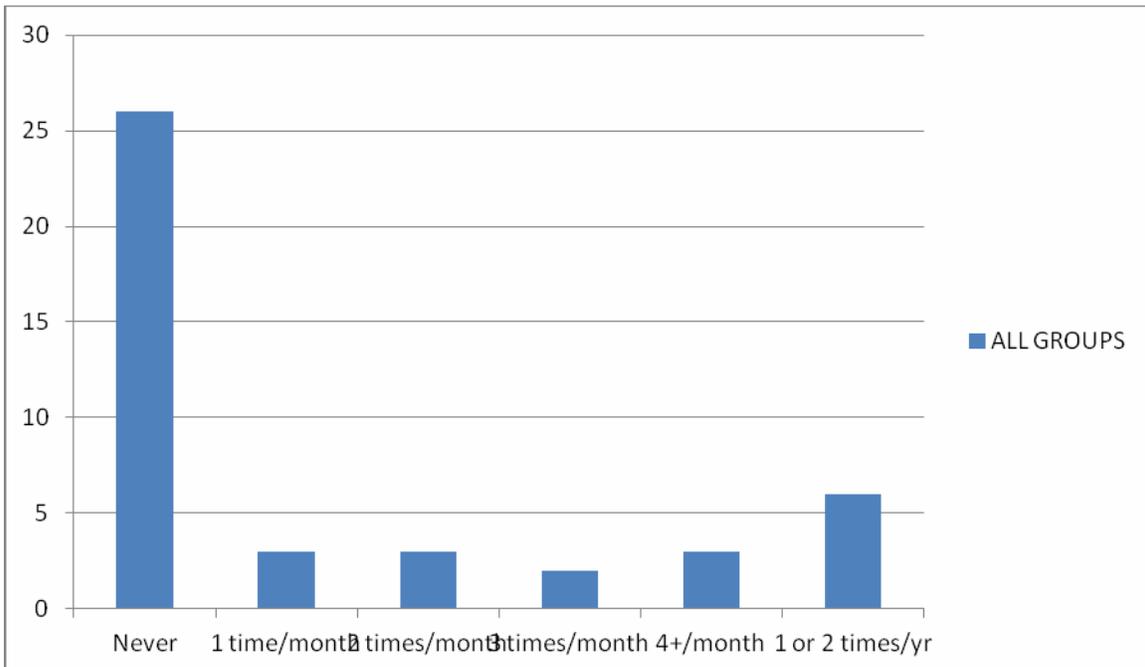
• **Fruits**

- Wal-Mart – 16
- Kroger – 10
- Farmers’ Market – 6
- Mexican stores – 4
- Save-a-lot – 2
- Meijers – 1
- Vietnamese store – 1
- “The fruit is rotten in Wal-Mart but looks good on the outside.”

11. How often do you shop at farmer’s markets, flea markets or at an actual farm each month?

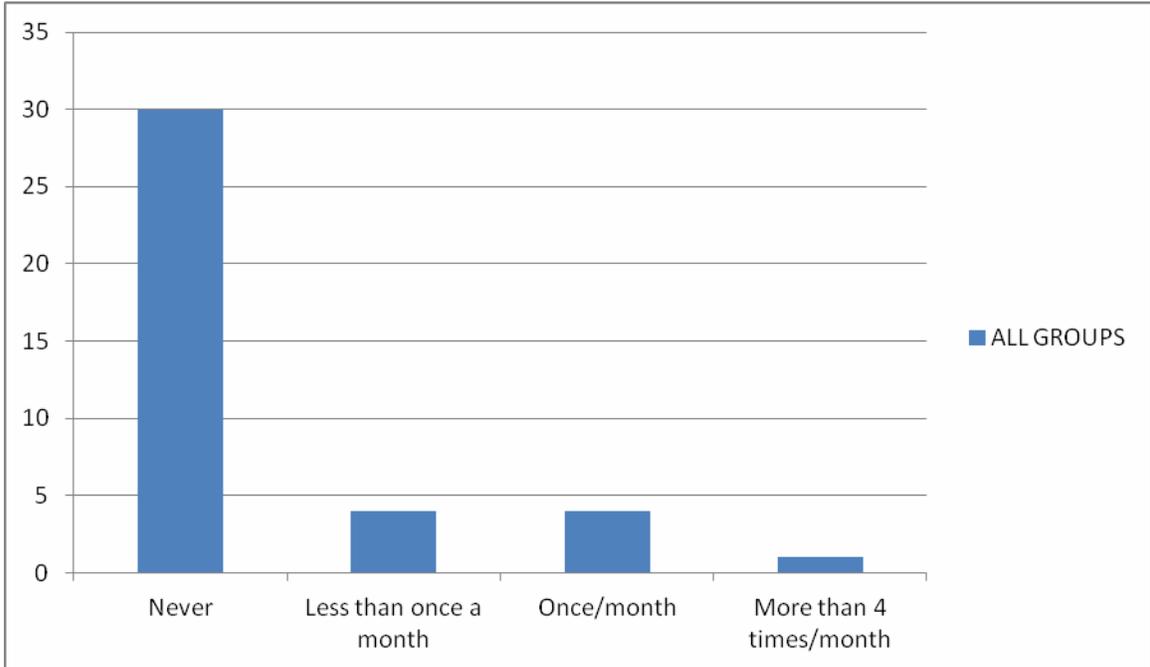
FARMER’S MARKET:

(n=43)



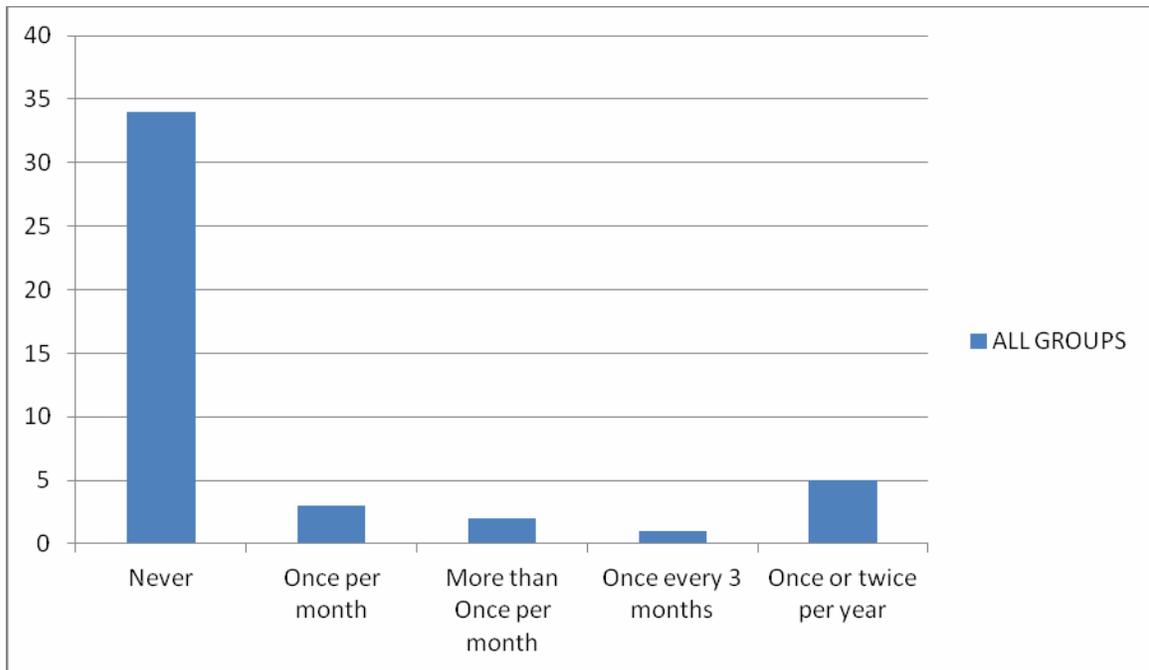
FLEA MARKETS:

(N=39)



FARM:

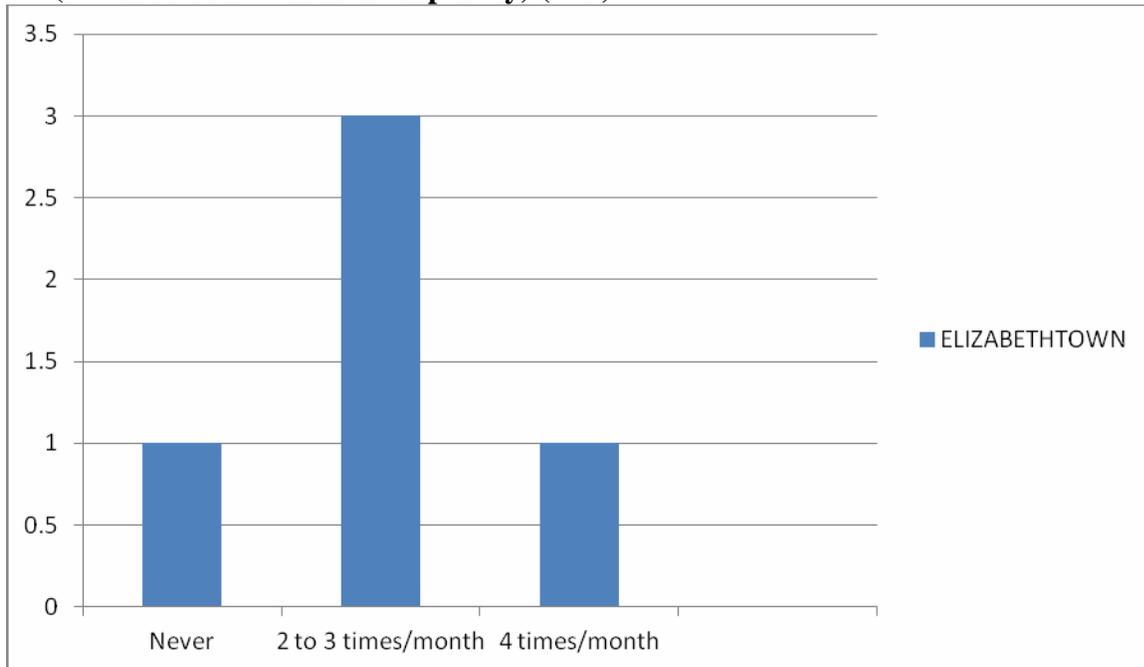
(n=45)



12. Do you think goat and lamb is a special occasion meat? What kind of meat do you eat for special occasions? (All groups)

- If we had better access to meat we would eat it more because it's hard to find.
- Eat goat on birthdays and Christmas
- Eat Turkey on Thanksgiving
- Weddings, special occasions like communions
- Chicken for birthdays and Christmas
- Seafood during holy week
- Pork and Ribs at Christmas
- Easter fresh seafood

13. If you had better access to goat meat, how often would you consume it? (Elizabethtown Focus Group Only) (n=5)



MEAT QUESTIONS:

14. What types of meat do you consume in a normal week?

- Chicken - 35
- Beef - 28
- Fish/Seafood - 13
- Pork - 8
- Turkey - 1
- Goat - 1

GOAT AND LAMB:

15. On the price chart with photos, which GOAT product would you purchase? Is the price ok?

- None
- 6 month price ok
- 6 month is expensive
- I want pork but for a special occasion I would pick two of the 100 lbs for a quincenera (15th birthday party) it is a cheap price
- 2mo price is too high
- 4 mo price is fine for a special occasion
- 4mo price is high
- 2mo price ok

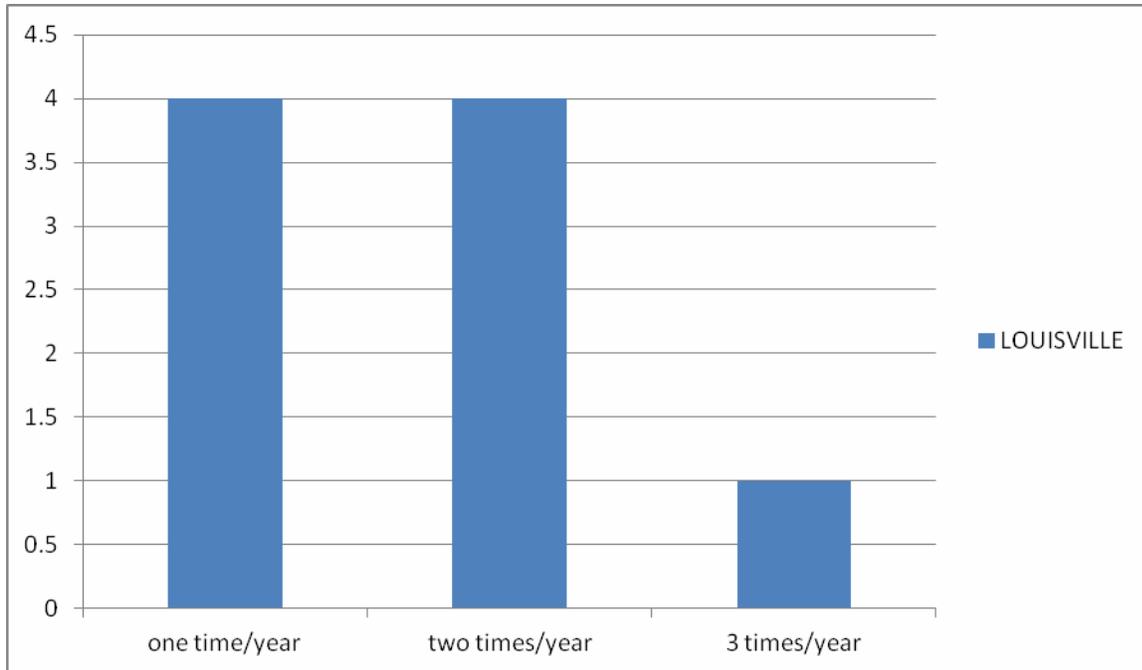
16. On the price chart with photos, which LAMB product would you purchase? Is the price ok?

- No
- 6 month price is expensive
- smallest 4mo price is high
- yes price ok
- 6mo price is fine

17. How would you like to buy GOAT or LAMB – live versus cut?

- Farmer prepares it, kills and cuts it was the most popular answer. The following answers were also given:
 - I choose it and they kill it
 - I would like to purchase it alive and kill it myself.
 - Cut and prepared by the farmer.
 - I'd like it alive I'll kill it at the house too. This is a tradition.
 - I'd take it home alive and feed it.

18. How many times would you buy GOAT per year? (Louisville only) (n=9)



CHICKEN:

19. How would you like to buy CHICKENS from a farm?

- Choosing it and having the farmer kill it.
- We want to kill it ourselves.
- We want it to be fed natural food.
- 5-6 a week they'd buy and they'd take them home alive

20. How many CHICKENS would you want? (Lexington only).

- 1x at 3 chickens a week
- 1x at 2 per week
- I want the eggs

PIGS:

21. Would you like to buy PIGS from a farm? And what would you be looking for?

- Small and fresh
- Farmer kills it
- I kill it
- Big is preferred size
- Middle Sized
- Yes for a party
- Natural with no hormones or chemicals
- Not frozen but just killed
- Recently processed

SEAFOOD:

- 22. Would you like to purchase TILAPIA? If so, how would you prefer to purchase it?**
- Fillets
 - Whole
 - Yes
 - Not frozen
 - I'd pay 8-9 each
 - Not in a store
- 23. Would you like to purchase CATFISH? If so, how would you prefer to purchase it?**
- Fillets
 - Frozen
 - Soup
 - Alive
 - Bigger ones lose their flavor
 - Never tried it
 - Don't like it
- 24. Would you like to purchase PRAWNS? If so, how would you prefer to purchase it?**
- Yes
 - I don't know the product
 - I've never had it but I'll try it
 - No
 - It's delicious in soup
- 25. Would you like to purchase SHRIMP? If so, how would you prefer to purchase it?**
(Frankfort and Louisville groups only)
- Yes
 - No
 - Yes—5lbs/month
 - Sea shrimp
 - Yes—lots
- 26. Where would you like to buy your FRESH MEATS? (n=14)**
- Wal-Mart – 10
 - Farmer's market – 3
 - Kroger -1
- 27. Where would you like to buy your FRESH PRODUCE? (n=18)**
- Wal-mart – 9
 - Direct from a farm – 6
 - Farmer's Market – 3

- “If all the farmers got together and we could buy a lot of fresh produce that would be best. If we knew when it was we would go. It doesn’t matter when it was, one would adapt their schedule as long as we knew when it would be.”
- 28. Do you think restaurants serve enough goat and lamb products? (all groups)**
- Almost everyone in each group said no that restaurants did NOT serve enough goat and lamb products.
- 29. How would you like to see them prepared? (all groups but Louisville) n=35**
- Barbequed – 25
 - Birria (special stew with sauce and bones and at times with the head and eyes) – 5
 - Grilled – 2
 - Don’t know or don’t like - 3
- 30. Do you prefer your meats FRESH or FROZEN in a store? (N=48)**
- Everyone said they preferred fresh.
 - “It is important no frozen. I don’t like frozen.”
 - “It is very important that it isn’t frozen. It loses its flavor and juice. It is better fresh.”

VEGETABLE AND HERB QUESTIONS:

- 31. What vegetables and herbs are most commonly used in a typical meal that you prepare? (All groups)**
- Carrots
 - Lettuces
 - Potatoes
 - tomatoes
 - ejote (green bean)
 - elote (corn)
 - pepper
 - onion
 - broccoli
 - jalepeno
 - avocado
 - cilantro
 - chayote (special Mexican squash)
 - yucca (cassava)
 - malanga (taro root)
 - chaya (leafy herb)
 - rabano (radish)
 - pumpkin
 - mushroom
 - cauliflower

- Spinach
- Cilantro
- spinach tomatillos
- repollo (cabbage)
- epazote (herb)
- apio (celery)
- Jicama
- Avocado
- Chayotes
- Nopales
- repollo (radish), outside they look good but inside they are rotten
- pepinos (cucumber)

32. Which vegetables and herbs are difficult to find? (all groups)

- Malanga (taro)
- avocado
- pipianes (type of squash)
- Chayote (Mexican green squash)
- Guanabana green banana
- yuca (cassava)
- mango abichuelas (beans)
- Fruits are hard like papayas
- a lot of fruits are hard (to find)
- Nopales (cactus)
- jicamas
- cilantro is hard sometimes
- papalos
- plantain
- Cimarron (?) is hard too
- Fresh cheese
- rancho cheese farmer cheeses you can't find
- Guayaba
- Papaya
- Mango
- epazote

33. Where do you most often purchase VEGETABLES or HERBS? (All groups)

- Wal-Mart – 15
- Kroger – 7
- Farmer's Market – 5
- Sam's Club – 2
- Vietnamese store – 2
- Valuemarket - 1

Marketing Potential of Fresh Food Products to Hispanic Consumers: Exploring a New Market Opportunity

Hispanic Grocery Store Component

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Collaborators

This study was made possible through the collaborative efforts between Kentucky State Government; Division of Marketing, University of Kentucky, Kentucky State University and a private entity, Bluegrass Lamb and Goat (BGL&G). Bluegrass Lamb and Goat is a USDA inspected processing plant. The inception, development and completion of this project could not have occurred as a standalone entity. It is our hope that the results of this study will be used to further develop the meat goat industry in Kentucky. We feel that this is only the first step toward the development of a sustainable meat production/utilization system.

Finally, this portion of this project would not have been possible without the diligent effort from the KSU; Special Assistant for Hispanic Initiative. Through this effort we were able to translate text and verbiage as well as coordinate field visits through telephone communication.

Situation

The Hispanic population in Kentucky (KY) is growing rapidly. According to the 2000 U.S. Census, KY had approximately 60,000 people who identify themselves as Hispanics; however it is suspected that this number is much higher. Current estimates for Central KY by the local Hispanic radio station indicated that there may be over 100,000 Hispanics living within a 50 mile radius of Lexington, KY. There is some evidence and assumption made by farmers and agricultural industry leaders that Hispanic consumers' desire goat meat in their diet on a regular base and they prefer fresh, locally produced and processed goat meat.

Furthermore, a preliminary marketing observational study, conducted by the University of Kentucky (UK) in Lexington KY (Dec. 2008, unpublished) observed that Hispanic goat meat purchasers were extremely price sensitive. This puts many Kentucky producers at a disadvantage because they are marketing fifty to sixty pound slaughter goat kids. However, this preliminary study revealed the presence of a mature doe market. This product is by-in-large an imported product and is predominantly sold in Hispanic grocery stores as a stew meat. These imports were found to be mature animals that were cut into large pieces, boxed, frozen and shipped into the US. The product was low in quality, off color and had been frozen for an unknown period of time. However, the product sold well because it was offered for sale in Hispanic grocery stores at much less than \$3.00/lb. Local store owners assured us that their customers would not pay more than \$2.79/lb for goat meat. Therefore, mature does were used as the goat meat source in this study.

In conclusion, the goal of this work was to explore and define the Hispanic market in Central KY from a Hispanic grocery store owner/operators point of view. Establish a price point as an aid for future pricing of the product and collect information regarding the type of product desired by Hispanics residing in Central KY. Likewise the

corresponding objective of this study was to determine the willingness of Hispanic grocers and customers to purchase locally produced goat products. This was done through test sale activities along with personal interviews with Hispanics who consumed the goat meat product.

Methods

In order to test these preliminary observations and assumptions; six Central KY cities were selected to participate in a Hispanic grocery store goat meat sales research project. These six cities (Table 1) were selected based on the presence of a significant number of Hispanics' residing in or near the cities. In order to support this project, approximately forty five mature does were collected from local farms, trucked, harvested and processed at BGL&G, P.O. Box 67, Paint Lick, KY 40461. BGL&G is a USDA inspected facility. The doe meat was cut into bone-in chunks, chops and stew meat, packaged in clear, shrink rapped two-pound packages. Each package was tagged and frozen for future use in the project.

The test period was 9/1/2009 through 1/31/2010. Each participating store was initially give 30-36 lbs of bone-in goat meat and restocked as needed. The amount of meat restock was based on observed sales potential. A price point assessment study was designed and initially set all store prices at \$2/lb for two weeks as an introductory offer and prices were to increased on half of the stores to \$2.39/lb for thirty days and finally increase to \$2.99/lb for the next thirty days. The remaining stores were started at \$2.99/lb and were then dropped to \$2.39/lb during this same time period. There were a total of twelve stores that participated in the study; and eight of these stores started on 9/1/2009. Additionally, the remaining stores in the study were started at various times at a later date in the study.

Two or more colorful, Spanish translated advertisement signs; describing the goat meat product was used at each site. The goat meat was described as be new, locally produced, fresh, clean and tender. These signs were hung in highly visible locations in each test store. The advertisements and pricing tags displayed the Kentucky Proud logo. A Spanish translation of a tally sheet was give to each participating store. Following each sale of goat meat the sales person was ask to record the date of purchase, type of cut (stew meat, chunk or chop) followed by weight of purchase and if the customer was Hispanic, Non-Hispanic and/or a repeat customer.

A collaborator from Kentucky State University, (KSU) a person of Hispanic origin and a fluent Spanish speaker was present for all store recruitment, weekly and bi-weekly visits and in addition maintained regular contact by phone speaking with each cooperator on a regular base. All procedural details regarding the project were discussed thoroughly by translation.

Results

During the test period of 9/1/2009 – 1/31/2010 meat sales were varied. Goat meat sales were similar for the initial store sites (Table-1) for September – October totaling 212 lbs for each month respectfully. However, goat meat sales for the months of November through January 2010 decline rapidly as winter and the holiday seasons approached. Newly recruited stores beginning on or after October resulted in low sales

throughout the test period. All stores initially priced goat meat at \$2/lb and all stores were increased to \$2.39/lb thereafter, prices were not increased further due to low sale volume. One exception was observed in a Frankfort KY store. This store exhibited the second highest volume of sales for the study. In this case the goat meat was sold for \$3/lb pre-cooked as an eat-in or carryout dinner. The complete dinner was priced at \$8/lb and was purchased predominately by young Hispanic men working away from their families residing in Mexico. The goat meat dish was Mexican Birria, a well known stew dish that requires a long preparation time and is welcomed by Mexican men living away from home. This particular grocery was sold in late October 2009 resulting in incomplete data for the study period.

Table-2 illustrates the diversity of the clientele purchasing goat meat from Hispanic grocery stores. Goat meat purchases were dominated by customers of Mexican origin making up 78% of the total customer base, followed by people of African background; 10%, European origin; 7%, Dominican Republicans; 3%, Egyptians and East Indians; 3%.

Discussion

The best sale volumes of the study were the first two months of the study; and we assumed that these introductory months would represent the lowest volume of sales for the marketing period. This was based on the assumption that as the grocery clientele became more familiar with the product, sales would increase and test stores would see more return costumers. Previous work conducted in Lexington KY (Dec. 2008, unpublished) indicated that the highest volume of sales and the highest prices paid (\$2.79/lb) for goat meat; of this type was seen two weeks prior to the Christmas holiday. A possible reason for the drastic decline in sales was the steep decline in the economy due to the recessionary conditions of the local and national economies. It appeared that employment opportunities for Hispanics were in jeopardy during this period and/or employment opportunities were not available. There was likely a reduction in construction based jobs, a natural decline in agricultural employment and a possible decline in domestic jobs. Grocery store owners reported a decline in sales of all meats including chicken, beef and pork.

As a matter of concern, most of the test stores were small store with an apparent small customer base. One of the Shelbyville test stores commanding the largest customer base of all participating stores; sold more meat (218 lbs) more consistently (43.6 lbs/month) than all other stores. This store also reported the greatest number of return customers (5). This customer number issue may indicate that goat meat is not a daily staple for a family's diet; but is likely a special treat and or a particular event meat. Therefore stores with a greater customer base are more likely to have better goat meat sales. The large supermarket Hispanic stores did not want to participant in the study because they were buying locally produced and processed whole carcasses goat and were selling as much as two hundred pounds of meat each week. Therefore there is some minimum number of regular shopping customers needed to make goat meat sales possible. This number needs to be determined in future research.

The abrupt decline in sales of the product in November 2009 – January 2010 may indicate family economic crises. If not for the resission; sales may have thrived

and increased with time. The initial response is indicative of willingness to buy at \$2/lb and \$2.39/lb. Under a special set of circumstances, there is evidence here to support that some Hispanics will pay as much as \$3/lb if the product is pre-cooked. The unknown price point lies between 2.39 and \$3/lb and it is not unreasonable to suspect it to be \$2.49-2.79/lb.

In order to answer the question, would these purchases of locally grown and processed goat meat be competitive with a similarly priced imported product? It is difficult to make a firm statement in this regard based solely on the data in Table 1. However, interviews with Hispanic students (Section III) who consumed this product will validate the statements made above that goat meat is considered a special occasion meat. In addition the product is considered an expensive meat selling for \$4-\$5/lb in Mexico, South American and Caribbean countries. One general consensus among these students is that they prefer and would perhaps pay more if the goat meat is produced and processed locally. Clean and fresh were commonly used terms to describe how they preferred their meat.

Section I: Challenges Associated with Small Scale Hispanic Grocery Stores

It appears that under more normal economic conditions there would be some movement of goat meat in small scale Hispanic grocery stores. However the volume of sales will likely be low. Table-1 shows modest sales for September and October indicating that on the average; on the average, twenty pounds of meat was sold from each store monthly. During better economic condition this amount might increase but perhaps not significantly. Large Hispanic groceries located in Lexington will sell in the range of two hundred pounds of fresh goat meat each week. This volume of sale emphasizes the major difference between the large and small stores and the difference is driven by the numbers of people available to purchase goat meat. The larger stores purchase whole carcasses, keep them in a cooler and cut the meat as needed. Where as in our case, we provided a frozen product and when placed on display in the meat section; it often is discarded when it passes the cold storage date. In some stores the product was store in small freezers and signage was used to inform potential buyers. The limitation here is that the product was not readily visibly to the potential customer. However, one Shelbyville store owner complemented the small frozen packages and he preferred this package to the imported boxed meat.

One possible solution to the volume of sales issue is to provide a similar packaged and frozen product and distribute it through an establish Hispanic based food broker or distributor. The total volume of sale would be high and small amounts of meat would be distributed to many small groceries through a particular marketing region of the state. This approach would eliminate an observed problem associated with trying to market a product to small store owners. Each store owner has a Hispanic food broker and distributor. This is a very comfortable and reliable source of food and products and the store owners are very reluctant to short cut this arrangement. It will be difficult for farmers and meat processors to develop a trusting relationship with a significant number of store owners but perhaps a relationship can be forged with a single Hispanic food broker or distributor.

This can be contrasted with experiences associated with larger, supermarket high volume Hispanic groceries in Lexington KY. These large stores sold imported goat meat in rather large volume and the product was purchased from a Hispanic broker. However, these large store owners were willing to make changes and take some risk by purchasing locally produced and process goat meat. Smaller store owners are more hesitant in establishing local agreements.

Section II: Challenges Associated with Small Scale Hispanic Grocery Store Owner/Operators

Often Hispanic Grocery store owners are very difficult to actually catch in the store. They are generally involved in businesses or family related activities and are mostly working outside the store. The most likely time to speak directly to the owners is early in the morning, as the store opens or late just before the store closes. Most of our conversation with store owners was by telephone. The phone calls were made from the store with assistance from the store employees. It is always a good idea to have a Spanish speaking individual with you when make the initial contact and perhaps for the next few contacts. Spanish speaking and writing is essential when defining an agreement between a Hispanic and Non-Hispanic parties.

In most cases, the communications between the store owner, generally male and the store employees is very poor. Store workers; as well as family members, wives and children do not have information regarding the business of the store. Producers must speak directly with the grocery owner in order to confirm a meaningful arrangement.

Section III: Interview with SEED Students at Kentucky State University Regarding Goat Meat Preferences

We were graciously given the opportunity to meet with the SEED students and SEED Coordinator, Jennifer Hubbard-Sanchez at Kentucky State University (KSU) in February of 2010. The acronym SEED represents a program entitled, Scholarships for Education and Economic Development. The SEED program is designed to support economic and social development throughout Central America, Mexico and the Caribbean and is made possible through a partnership with the United States Agency for International Development (USAID) and KSU. Nineteen students from the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico and Nicaragua have come to KSU to pursue job training in Small and Medium Enterprise Management and Marketing through a certification program. These select students are some of the best and brightest young people to represent Mexico, Central America and the Caribbean and they will return home and make a contribution to their local economies.

Each student was given two pounds of the bone-in goat meat as describe in the Methods section of this report. The students cooked and consumed the meat and were collectively interviewed following the eating experience.

The consensus was that the meat had a good flavor, tasted fresh and had the appearance and taste of a similar quality cut available in their home countries. It was also the consensus of the group that produced and processed locally was important to

them personally and they, collectively, would be willing to pay more for the product if it is from a local source.

Each student insisted that they unanimously preferred to purchase the product in the grocery store and would not purchase goat live from a farm. The students also confirmed that they would cook the product themselves rather than purchase precooked at a lunch counter or an eat-in restaurant. There were 9 female and 1 male students participating in the interview and this statement of preference may be weighted toward the female perspective. It was established, during the interview that Hispanic males rarely cook for themselves.

Furthermore, the Haitian representative commented that the Haitian preference was to use goat meat in a soup and would prefer to purchase the meat pre-cut into small pieces weighing no more than 2 pounds. This dish would be consumed daily given availability. By contrast, a representative from central Mexico commented that it was local custom to purchase goat meat in one-half carcass lots. A whole carcass typically sold in central Mexico would be from a large mature animal. The meat is cooked slowly on a hot grill and served on a taco. Goat meat in central Mexico is only consumed on special occasions.

Similarly, goat is purchased in large chunks weighing from 0.5-1 lb per chunk in Guatemala. However, the Guatemalan student suggested the weight and size of the cuts should remain small, when purchased in the United States, this would accommodate new comers who just want to try the product initially. Goat is only used for special events in Guatemala.

The representative from the Dominican Republic made a point that when possible; goat meat would be consumed daily but would always be served on special family oriented occasions. The goat meat is often sold as a 35-40 pound carcass in the Dominican Republic. A similar statement was made by a Nicaraguan student.

Some assumptions that are often made among North American producers and processors regarding age and sex of goat meat preferences for Caribbean consumers was dispelled during the interview. The animal age of choice is young for all countries in attendance, with the animal being no more than a year old and the females were favored over male goats. Young and older male goats are consumed when females are not available. Older males are cooked slow and heavily spiced to cover up odor and off flavor.

Companion dishes or side dishes of choice were overwhelmingly rice and beans or fried rice followed by soups, tortillas and plantain. Dishes are garnished with onions, garlic and cilantro.

It is interesting to note that in all countries involved in the discussion consider goat meat an expensive delicacy when compared to the price of chicken or pork. In general goat is served during parties, celebrations and family gatherings. It is served in small serving sizes and as appetizers before the main meal of the day. The cost of goat meat runs \$4-\$5 per pound or \$200-\$250 per 40 pound carcass.

The students affirmed that good advertising is essential to informing the Spanish speaking public about the product. In-store signs should be in English and Spanish and must have pictures of goats and contain the words local, fresh and clean. The best general public advertising medium is the radio and television. Most moderate sized towns in the US will have a Spanish speaking radio station. Larger towns may have a

Spanish speaking TV program. Local advertisement can be purchased and run on out-of-country TV stations that serve the local dish or cable stations.

Tertiary Study Indian Restaurant

As a result of attempts to market goat meat in many venues associated with a potential Hispanic market; this goat meat product was observed by an Indian restaurant owner in Zandale Shopping Center, Lexington Kentucky. The interest in the project goat meat evolved in to a contact with BGL&G and the development of a potential outlet for this goat product. A goat curry dish was developed by an Indian restaurants owner. This dish is presently being served in four Indian restaurants in the Lexington and Richmond Kentucky area. The restaurant owner has reported to BGL&G that there is more than a 50% reorder response for those who have tried the dish. The four restaurants are serving approximately eighty pound of the bone-in goat meat weekly. The wholesale price for the meat is \$2.58/lb. BS&G reported that this product, at this time has a sustainable market and they feel that the market will continue to grow.

Goat Meat Sales-Pounds Each Month (2009-10)

Table 1.		Sept	Oct	Nov	Dec	Jan	Totals
	Price per lb:	\$2.39-\$3.00 ^a	\$2.39-\$3.00 ^a	\$2.39	\$2.39	\$2.39	
Test Cities	No. of Outlets:						
Shelbyville	3	50	92	16	48	20	226
Frankfort	1	56	12	0	0	0	68
	1 ^a	74	40	0	0	0	114
Lexington	2	32	56	0	0	0	88
Lancaster	1		4	0	0	0	4
Simpsonville	1 ^b		8	0	0	0	8
Versailles	1				8	6	14
Totals	10	212	212	16	56	26	522

^aGoat meat sold at \$3.00/lb as an eat-in or carry-out dish at a lunch counter. Business sold in Nov.

^bGoat meat offered from a non-Hispanic meat market selling an assortment of meats located in a Hispanic shopping site.

Ethnic Description of Consumers Purchasing Goat meat from Hispanic Grocery Stores (2009-10)

Table 2.	Number of Consumers	Average lb Sold/Purchase	Ethnic Consumer Group	Country of Origin	No. Return Costumer
Shelbyville	33	6.8	5-NH	5-USA	5
			28-H	27-Mexico	
				1-Dom. Rep.	
Frankfort	33	2.13	8-NH	7-Africa	1
				1-Egypt	
			25-H	24-Mexico	
				1-Dom. Rep.	
Lexington	2	N/A	1-NH	1-India	N/A
Lancaster	2	2	2-H	2-Mexico	0
impsonville		N/A	N/A	N/A	N/A
Versailles	4	2	4-H	4-Mexico	0

H= Non-Hispanic, H=Hispanic, N/A=Data not available