

# **Consumer Perceptions of Goat Meat**

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In the late 1980's, market research indicated that ethnic consumers were the "backbone" of the goat meat market in Florida. As goat production grows, producers feared that larger supplies of goat meat in the absence of increased consumer demand would result in drastically lower farm-level prices for goats. Ways of reaching new customers had to be found.

The first step in formulating a viable, long-term market development program was to ascertain consumers' existing perceptions of goat meat, both "real" and "imagined." "Real" perceptions, based upon objective product evaluations, allow the industry to actively pursue ways to improve product quality through grades and standards or alternative cooking recommendations if negative product attributes are identified. Similarly, knowledge "imagined" perceptions or consumer attitudes allows the industry to exploit positive images and counteract negative images through various educational and promotional programs.

A review of literature revealed little about consumers' attitudes toward goat meat. The literature search found several palatability studies which compared goat with beef, pork, lamb and even horse. However, the palatability studies had used standardized laboratory cooking methods that appeared to put goat meat at a disadvantage.

Because of the limited information available on goat meat, several studies were conducted by the Florida Agricultural Market Research Center. One study explored consumer attitudes towards and the other obtained more appropriate product evaluations by having consumers evaluate goat meat cooked by barbecuing, a cooking method commonly used by consumers and many foodservice establishments.

### Consumer Attitudes

Consumer attitudes toward goat meat were explored in focus group interviews conducted in Tampa and Jacksonville, and also during a survey of 600 consumers. Several negative factors were identified that could impair market development efforts for goat meat, but there were some positive findings as well.

There is a pervasive perception among consumers that red meat is "bad" for health; this perception has manifested itself in dramatically reduced beef consumption in recent years. This continuing downward trend could negatively impact goat as well, unless there is documentation that the nutritional

composition of goat meat is superior to other red meats such as beef and pork. Another commonplace perception is that goats are cute little animals that belong on idyllic farms, in nursery rhymes or in petting zoos, rather than on the dinner table. Some focus group participants expressed their disgust with the idea of eating goat, saying "It's like eating a pet...like a dog or cat." Another relatively common negative perception is that goats will eat anything from tin cans to tires, and trash consumption results in inedible or poor quality meat. Still another negative image of goat meat persists among older men that served in World War II. These ex-servicemen say they were fed strong-smelling, foul-tasting "goat" (probably mutton) during the war when shortages of beef, pork and poultry were common.

Fortunately, there are many positive images of goat meat as well. On the positive side, many consumers have a perception that goat's milk is especially nutritious and, therefore, goat meat should be healthful as well. Another positive finding was that, when asked to describe the kind of that "trendy," "upscale" restaurants would likely serve goat. Of the 600 taste panel consumers, the majority described restaurants selling goat meat in positive terms, such as "clean," "well maintained," "moderately priced," "tastefully decorated," and "in a nice part of town." Negative restaurant associations were expressed by a minority of respondents.

Names commonly used in the industry for goat meat were also examined. Using a psychological word association technique, the 600 consumers in Tampa and Jacksonville were asked for first impressions of "chevon," "cabrito" and "goat." Additionally, each respondent was asked to indicate the social class of people that would consume each of the items. In general, "chevon" and "cabrito" received more favorable association than did "goat." Additionally, "chevon" and "cabrito" were generally associated with higher social classes than "goat" (Table 5). The implications of these associations are clear for the goat industry: "chevon" and "cabrito" project a better image than "goat," and these or other fanciful names should be encouraged on menus and in promotional activities whenever possible. A lesson can be learned from other livestock groups; meat from "baby calves" is known as veal, from pigs, "pork," not "pig meat."

### Product Evaluations

Product evaluations were conducted in Tampa and Jacksonville. Samples of 300 consumers were obtained in major shopping malls in each city. The 600 participants were screened to include those over 18 years of age, those that had eaten some type of barbecue within the past year, and those that had patronized a full-service restaurant at least once in the previous month. After respondents were qualified in the malls, they were taken to market research firms' headquarters, where they were given product samples and interviewed by trained, professional interviewers in privacy booth.

Barbecued beef was used as a control or benchmark against which the goat meat was compared. Both the goat and the beef were prepared under commercial conditions by a restaurant which specializes in barbecued meats. The beef samples, taken directly from the stock of the restaurant, were from whole bottom rounds which had been cooked at 225°F for ten hours. The goat meat, obtained from ten Spanish goat carcasses ranging from 17 to 39 pounds, was cooked for two to eight hours, depending on the thickness of cut. The entire goat carcass was used. After cooking, all samples were de-boned, trimmed of exterior gristle and fat, and cut into half-inch cubes. All samples were then stored at 38°F until needed, from two to four days. According to the manager of the restaurant that prepared the samples, this refrigerated storage period is well within the norm for storage of cooked beef barbecue by many restaurants.

Each person was asked to evaluate one-ounce samples of both the goat and the beef. Samples were identified only by the letters "L" and "T," and the order in which they were presented to participants was rotated to minimize order bias. Respondents were not told what types of meat were being evaluated. Only three respondents insisted upon knowing the types of meat; the remaining 99 percent did not know. The samples were heated to serving temperature in a microwave oven in individual plastic serving cups prior to evaluation. No sauce was used during preparation or serving, but salt was available for respondents' use if desired.

Consumers were asked to rate the goat and beef samples with respect to tenderness, smoked flavor, meat flavor, and juiciness on a five-point semantic differential scale where 3 represented the ideal and 1 and 5 represented defined extremes (Table 1). Although both goat and beef were both judged to be slightly too tough and slightly too dry, the mean ratings for tenderness and juiciness for beef were nearer the ideal, and the differences between goat and beef were

statistically significant. With respect to smoked flavor, mean ratings indicated that both products needed additional flavor. However, the ratings for goat and beef were statistically different, and the rating for goat was nearer the ideal. Ratings for meat flavor were very similar for both products; mean ratings were very near the ideal, but both were judged to be slightly bland (Table 1).

Table 1. Consumer ratings of selected organoleptic attributes of goat meat and beef.

Attribute	Mean ratings <sup>a</sup>	
	Goat	Beef
Tenderness	2.29	2.45 <sup>b</sup>
Smoked Flavor	3.34 <sup>b</sup>	3.71
Meat flavor	3.30	3.26
Juiciness	2.44	2.59 <sup>b</sup>

<sup>a</sup>Ratings were made on the basis of a five-point semantic differential scale where 3 represented "just right" and the extremes were defined as follows:

- Tenderness: 1 = much too tough; 5 = needs to be tougher
- Smoked flavor: 1 = much too smoky; 5 = needs much more smoke flavor
- Meat flavor: 1 = much too strong; 5 = needs much more meat flavor
- Juiciness: 1 = much too dry; 5 = much too juicy

<sup>b</sup>Paired t-tests were used to compare mean ratings for goat and beef. Superscripts are placed on mean values nearest the ideal rating of 3 where the differences between ratings for goat and beef were statistically significant at the 0.05 probability level.

Smell and composite ratings for "overall taste" and "overall appeal" were made using a scale where 10 represented excellent and 0 extremely poor. The goat meat received slightly better average ratings on all three characteristics, but the difference between goat and beef ratings was statistically significant only for smell (Table 2). Examination of the "overall appeal" ratings revealed that nearly 42 percent of the respondents preferred the goat, 38 percent preferred the beef, and 20 percent were indifferent, giving identical ratings to the two products.

Table 2. Consumer ratings of selected characteristics of goat meat and beef.

Characteristic	Mean ratings <sup>a</sup>	
	Goat	Beef
Smell	6.12 <sup>b</sup>	5.72
Overall taste	5.94	5.80
Overall appeal	5.69	5.67

<sup>a</sup>Ratings are based upon a numeric scale where 10 = excellent and 0 = extremely poor.

<sup>b</sup>Paired t-tests were used to compare mean ratings for goat and beef. Superscripts are placed on mean values nearest the ideal rating of 3 where the differences between ratings for goat and beef were statistically significant at the 0.05 level.

Respondents were also asked to rate the suitability of the two products for an occasional family meal served at home, as a special meal for friends, and as a restaurant meal. Ratings for goat and beef were very similar for all three types of meals. It appears that both products were viewed as being more acceptable for family at-home meals than for special entertaining or as restaurant meals (Table 3).

Table 3. Suitability of goat and beef barbecue for selected types of meals.

Meal type	Mean ratings <sup>a</sup>	
	Goat	Beef
Occasional family meal, at home	5.18	5.28
Special meal for friends	4.63	4.60
Restaurant meal	4.60	4.55

<sup>a</sup>Ratings are based upon a numeric scale where 10 = excellent and 0 = extremely poor. Paired t-tests were used to compare goat and beef ratings for each type of meal. None were statistically significant at the 0.05 probability level.

Prior to being told what two types of meat they had evaluated, respondents were asked whether or not they would buy products similar to the samples in a restaurant or in a retail food store. Slightly over half said they would buy the goat barbecue in a restaurant, 46 percent said they would not, and three percent were undecided. Fewer respondents were willing to buy the beef. Forty-seven percent indicated a willingness to buy the beef, virtually the same percentage was unwilling, with nearly six percent undecided (Table 4). Nearly two-thirds of all respondents were willing to buy both the goat and the beef for an at-home meal, while approximately one-third were unwilling (Table 4).

Table 4. Consumers' willingness to buy goat and beef barbecue in food stores and restaurants.

Type of outlet/ Response	Goat		Beef	
	(Number)	(Percent)	(Number)	(Percent)
Restaurant:				
Yes, would buy	307	51.2	282	47.1
No, would not buy	274	45.7	283	47.2
Unsure	18	3.0	34	5.7
Totals	599	100.0 <sup>a</sup>	599	100.0
Food store:				
Yes, would buy	382	63.8	374	62.4
No, would not buy	201	33.6	198	33.0
Unsure	16	2.7	27	4.5
Totals	599	100.0 <sup>a</sup>	599	100.0

<sup>a</sup>Percentage does not sum to 100.0 due to rounding.

After the blind (unidentified) product evaluations had been completed, respondents were told that one product was goat and one was beef. Only 51 percent correctly identified goat, 41 percent incorrectly identified the beef as goat, and eight percent were unsure. Only 25 percent of all respondents had

previously eaten goat meat. The product evaluations tended to confirm our initial hypothesis: that goat meat, properly prepared, would compare very favorably with beef.

### Summary and Conclusion

Our research indicated that goat meat, when barbecued under commercial foodservice conditions and evaluated by consumers under "blind" conditions, compares very favorably to beef. However, in the real world, few people eat "mystery meat." Identifying the barbecued product as "goat meat" would likely have mixed effects on consumers. Because of negative images of goats or goat meat, some consumers would be totally repulsed; others would probably be favorably predisposed toward the product because of positive associations with goat's milk. Based upon consumers' reaction to the terms "goat meat," "cabrito" and "chevron," "goat meat" is viewed much more negatively than the other two terms. As a consequence, leaders in the goat industry should strive to use "cabrito," "chevon," or some other fanciful name in lieu of "goat". Additionally, educational and public relations programs should also portray goats as clean, useful producers of healthful meat and milk products instead of cute, cuddly pets.