

# **The Economics and Marketing of Goats: The Case of Missouri**

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## **Introduction**

In recent years, goat and goat meat have become acceptable and recognized as the source of healthy meat in the United States. We are going to explore the issue under two broad categories; the economics of goats as farm animal and the marketing of goats. Under the economics of goats, we will examine the trend in the demand and supply of goat meat, trend in the number of goats slaughtered in the U.S., and the cost of raising goats in Missouri. In the marketing of goats, we will explore Internet or electronic goat marketing, as well as other niche marketing strategies for goats.

## **Trend in Demand for Goats**

- **Increase in Demand:**

Within this decade, the goat industry in the United States (US) has witnessed a significant increase in demand. This growth can be attributed to different causes, such as immigration into the United States by ethnic groups, food preference and religious affiliation, and demand from the health conscious communities or groups. We will examine these and other causes individually.

## **Immigration into the United States**

The influx of ethnic groups into the US has accelerated in recent years. These groups are comprised of both legal and illegal immigrant. The number who comes in legally has gone from 51,000 to approximately 62,000 annually since 1991. Immigrants who enter the US illegally are currently estimated to be between 1.9 and 3 million annually (Ajuzie, 2002)<sup>1</sup> Hispanics remained the largest minority group in the U.S. since 2006, with 44.3 million persons in July 2006, or nearly 15 percent of the total population. With a 3.4 percent increase between 2006 and 2007, Hispanic was the fastest-growing minority group. By 2050, the population of Hispanic-origin is estimated to reach 25 percent of the U.S. population, or about 96.5 million persons. According to (Shiflett, 2007)<sup>2</sup> if the Hispanic population grows to 96.5 million persons by 2050, then goat consumption in this country could reach 96.5 million pounds- or more than double the amount consumed today. But the Hispanics are not the only group that enters this country illegally. A rough estimate puts that number at half a million annually. These numbers are of particular significance to the goat industry because the individuals involved are coming from countries or regions where goat meat is regarded as staple meat and its consumption is

high. While in the U.S., they would like their demand for goat meat to be met. It is estimated that given its rate of growth, the U.S. goat industry can meet this challenge.

### **Food preference and religious affiliation**

Consumption of goat meat fluctuates with the religious affiliations of the ethnic groups whose staple meat is goat. For example, demand increases significantly during Christian holidays, such as Christmas and Easter, and Muslim holidays. There is a corresponding rise in price following the increase in demand for goats and goat meat. In July 1998, a top kid was sold on the Internet for \$59.50. Interestingly, a similar top kid was bought for \$72.25 on the Internet in December 1998. With such knowledge, producers can target the periods of high demand to maximize profit.

The preference for goat meat is constantly increasing. A few years ago, a very large percentage of US citizens did not eat goat meat. Recently, even though those who do not eat meat are still in the majority, their number is dwindling. This is because goat meat is gaining acceptance among those who disliked it before.

### **Demand from the health- conscious and relatively young community**

Goats, which are mostly raised on free range, tend to be leaner than other livestock, such as beef and hog. They are also lower in cholesterol. These characteristics of goats make their meat attractive to the young members of our communities who are health-conscious. Because this group is growing at a fast pace, the demand for goat is increasing at a similar rate.

Demand for goat meat from the health food sector is on the increase. This mirrors the increasing demand among the health- conscious young communities who shop for food, medicine and/ or food supplements at health food stores.

- **Demand for Goats is Inelastic:**

Those who eat goat meat have an inelastic demand for the animal. This means that a decrease in the price of goats or goat meat does not necessarily lead to the purchase of more goats. On the other hand, an increase in price does not result in a significant decrease in quantity of goats or goat meat demanded and purchased. These two factors indicate that a producer does not have any incentive to reduce the price of goats. Instead, he has an economic incentive to increase the price of goats. By doing so, he will maximize the profit from his herd.

### **Trend in the Supply of Goats**

The supply of goat meat is known to be elastic. This means that, generally, a unit increase in price, say by a dollar, would result in a significant increase in the supply of goats. Similarly, a decrease in price would lead to a reduction in supply of goats. However, certain conditions could delay these shifts in supply. These conditions include start- up

costs, technical know-how, lag, and land resource availability. Let us briefly discuss these variables.

### **Start-up cost**

When the price of goat meat increases, a beginning producer who wants to get into goat production would buy young goats and raise them to a certain weight when he can sell them for meat. Alternatively, he can buy his own breeding stock, which he can breed on his farm. This would require some capital outlay, which he may not have. For a small farmer, he may not have the collateral to borrow what it would take to start a goat operation.

### **Technical Know-how**

Goat production requires that the producer knows how to manage and provide adequate nutrition for the animals. This is not rocket science. The technical know-how could be done with little instruction and reading. This could take some time and result in delayed supply reaction to changes in price. In other words, when goat meat price increases there should be immediate increase in the quantity of goat meat supplied. But because of the time it would take new producers to learn the technique of producing goats, the increase in the supply of goat meat would be delayed. The consequence is that goat meat prices will remain high in the short run.

### **Time Lag**

Time lag is another factor that disrupts the shift in supply following a rise or fall in price. It is based on the fact that goats, like most animals, have favorable times of the year when they breed and no matter what one does, one cannot instantaneously either increase or decrease their number. It takes time to raise goats to the size when they can be sold profitably.

### **Land resource availability**

Availability of land resource affects both beginning and existing farmers. Existing farmers fall into this category when they do not have useable reserve pasture. Both beginning and existing farmers would have to look for land to buy in order to start or expand production, respectively. The fact that land (pasture) is not readily available will make it impossible for the producer to produce goats, or to increase production in the case of existing farmer; in order to take advantage of a given increase in price. Again, this will distort or dampen the expected increase in the supply of goats or goat meat.

### **Indication of Increase in Demand and Supply of Goats in the United States**

Table 1 shows the number of goats imported into the United States from 1989 to 1993. It reflects a rapid increase in demand for goats in the country, especially in the decade of

the 1990s. In 1989, 86,067 goats were imported into the U.S. The peak within this period of time occurred in 1992 with the importation of 172,280 goats.

Table 1:

**United States Goat Import Data**  
(Thousand head, live)

Year	Number of Goats Imported
1989	1,055
1990	524
1991	6
1992	20
1993	757
1994	28,500
1995	1,385
1996	1,144
1997	1,172
1998	2,475
1999	1,166
2000	1,414
2001	3,686
2002	11,874
2003	7,453
2004	147
2005	464
2006	0
2007	33
2008	0

Source: USDA/NASS Data Base

<u>Year</u>	<u>No. of Goats Imported</u>
1989	86,067
1990	99,353
1991	122,932
1992	172,280
1993	136,364*

Source: Pinkerton, F. 1995. "Meat Goat Marketing in Greater New York City"

\* The number of imported goats went down in 1993, indicating an increase in goat production internally.

Table 2 shows goat exports from the United States within the same time period. The largest numbers of goats, approximately 122,056, were exported from US shores in 1989. From then on, the number of goats exported from US has continued to decline. This is a reflection of the fact that more people in the country are accepting and demanding goat meat. Again, more immigrants to the U.S. are coming from those countries that consume goat as staple meat.

Table 2:

**United States Goat Export Data**  
(Thousand head, live)

Year	Number of Goats Exported
1989	110,238
1990	91,586
1991	61,612
1992	31,794
1993	49,864
1994	62,385
1995	15,478
1996	77,690
1997	66,924
1998	65,298
1999	71,985
2000	61,218
2001	32,974
2002	26,305
2003	29,579
2004	3,775
2005	3,976
2006	11,075
2007	9,231
2008	18,166

Source: USDA/NASS Data Base

Year	Exports from the U.S
1989	122,056
1990	115,413
1991	53,246
1992	60,444
1993	3,504*

Source: Pinkerton, F. 1995. "Meat Goat Marketing in Greater New York City.

\*The sharp drop in exports is attributable to the decrease in the importation of goats into the country.

### **Trend in the Number of Goats Slaughtered in the U.S.**

The reported number of goats slaughtered in the U.S. is taken only from government approved slaughter houses and, therefore, underestimates the actual number of goats slaughtered. It does not take into account the goats slaughtered on farms, in the backyards of individuals, and elsewhere around the country. But the important thing is that numbers obtained from the government lead us to conclude that the slaughter of goats is increasing over time. For example, 207,893 head of goats were slaughtered in 1991. This rose to 456,462 head of goats in 1997, approximately 120 percent increase in six years.

### **Cost of Raising a Goat in Missouri**

Generally speaking, the estimated cost of doing business may vary from one region to another or even from one city to another. Much depends on demand and supply of purchased productive inputs. The following costs of materials were taken from South Central region of Missouri. They may differ in other regions of Missouri. But they provide us with basis from which we can make offers to purchase specific inputs or services.

#### **Based on 2000 Prices**

Purchase Price: (Breeding Stock):	\$150.00
Feed: Hay (12001b – big round)	20.00
Hay (square)	2.50
Grain (501b bag)	3.50
Supplies: Hoof trimmers	16.00
Grooming brush	4.00
Insecticide powder	7.00
Medication: CDT Vaccination	.50
Worming medication (10-20 goats)	8-15
Procedures: Stud service	5-25
Vet service	35.00
CAE blood test	12.00
Stool Sample – Veterinarian	3-7

## Prices of Livestock at 1998 Auction Markets

### Electronic Goat Market

July 16, 1998

1. Top Kid	\$59.50
2. Culls	29.00

December 16, 1998

1. Top Kid	\$72.27
2. Culls	35.00

The difference between prices in July and December can only be attributed to an event like Christmas in December, when demand for goats is relatively higher. In December, a 60 pound goat was sold for more than a dollar per pound. In July, it was below a dollar per pound.

### **What do we learn from above discussions?**

1. There is a clear indication that the goat industry is experiencing a steady growth, which will continue into the 21<sup>st</sup> century
2. Because of the negative elasticity of demand for goat meat, we find that the demand for goat will keep increasing while prices will not fall as much or at the same rate at which demand increases.
3. Based on the above information, we conclude that this is a great opportunity for goat producers in Missouri to enhance their profitability by producing higher quality goats and selling them through electronic auction or other sources, some of which will be discussed briefly below.

### **Marketing of Goats**

Marketing of goats will be briefly discussed under two headings-

- Internet goat marketing
- Niche or direct goat marketing

### **Electronic or Internet Goat Marketing**

The electronic Internet auction goat marketing procedure was developed by the author in 1998. It has since been transferred to private goat producers in Missouri. It describes a

situation where goat producers in Missouri pool and sell their goats collectively on the Internet. It helped to raise the prices of goats in Missouri and neighboring states. For example, in July 1998 a top kid goat sold for \$59.50 while a cull sold for \$29.00. In December of the same year, a top kid sold for \$72.25 while culls sold for \$35.00 per head. By 2002, the Top kids were selling for \$99.95 per head and culls were selling for \$22.00 per head. Since then, prices of Top kids have topped \$100.00 per head. It is speculated that prices will continue to increase or moderate at around the one hundred dollar mark, everything else held constant.

## **Niche Markets- Direct Marketing**

Apart from electronic auction marketing (Internet marketing) of goats, there are niche markets that a producer can utilize as he/she tries to sell his/her animals. The difference between these and electronic auction is that in some of these niche markets, producers will be selling directly to the final consumer, thus avoiding the middleman and earning a larger percentage of the marketplace dollar. In this section, we examine some of these markets.

### **1. Restaurant Market**

In the restaurant market, the producer contracts with some restaurants to supply them with goat meat. They will agree to a schedule for the delivery of the meat. In other words, delivery to the restaurant will follow a prearranged schedule. The producer will promise to meet federal and state inspection in his/her processing facility. Customers who could be contracted with in this niche market are managers or chefs of restaurants, where goat meat is cooked and sold. A producer who does not have a slaughter house can use custom processing. This is an arrangement whereby a producer arranges to process his/her goats in a government approved facility.

### **2. Ethnic Market**

In the United States, there are concentrations of ethnic populations. Some of them are dispersed around the country. Most, if not all, of these groups come from regions of the world where goat meat is eaten in large quantities and is a delicacy. The producer should make an effort to seek out and contract with these groups and supply them with goat meat. He should provide customers with information regarding purchase procedures and slaughter options available to them on his farm. If they prefer custom processing, the producer should find an approved slaughter house where they can process their animals. The producers should look for customers among individuals or groups who have migrated to the U.S. from foreign countries. Examples are Mexican, and African populations.

### **3. Freezer Market**

Like ethnic markets, freezer markets entail discovering and working with different customers. They are provided with information regarding purchase and slaughter procedures. These customers will decide how they want their meat handled. Given such information, the producer slaughters, cuts, wraps, freezes, and delivers the meat at a prearranged schedule to those who want theirs delivered. For those who could come to a producer's farm to pick up their meat, a schedule should be worked out that is convenient for both parties. Producers should make additional efforts to assist customers in picking up their processed meat. Whether helping them to pick up or delivering the meat yourself, the producer should treat his/his customers cautiously to keep them wanting to buy from him and even bringing him new customers. In this case, customers include the general public. Understanding that more and more Americans are beginning to eat goat meat, the producer should not limit his customer relations just to ethnic populations. The group of Americans who are eating goat meat are those who are usually health conscious and buy food from health food stores. The producer, who is interested in exploring this market niche, may want to start with a visit to health food stores within his area and talking to potential customers. They would be sold on the fact that goat meat is lower in cholesterol and fat than beef, pork, and chicken, which contain growth hormone. A good strategy is to provide them with a healthy recipe for cooking goat meat.

#### **4. Retail Food Store Market**

This involves discovering and contracting with retail food stores to supply them with goat meat. In most cases, these stores are either ethnic stores or health food stores. It is likely that in the near future, general grocery store chains would begin to carry goat meat, and some already do. One has to ask questions to find out which stores are presently carrying this meat and those expecting to start carrying it sometime soon. Customers in this niche market include buyers for small local food chains or managers of individual retail and health food stores in the communities near the farm.

#### Reference

- <sup>1</sup> Ajuzie, Emmanuel I.S. "Marketing Strategies for Small Farms: Missouri Goats First on Internet Auction." Lincoln University Cooperative Extension Publication, 2002.
- <sup>2</sup> Shiflett, Julie Stepanek. "Goat Meat Market Booming." Reprinted from the Boar Goat pages 14-16, Dec., 2007.