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# Some Fundamentals of Marketing Meat Goats

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## Abstract

Over the last couple of decades, the demand for goat meat has risen in the U.S. However, the current supply of domestic goats does not meet the demand. In fact, the increase in demand is the result of the growth in ethnic populations in the U.S. Consequently, small producers are raising goats as a source of income. Thus, they must become familiar with ethnic holidays or festivals, understand marketing, and the importance of body condition scoring and selection criteria in order to increase returns from the sale of their goats. The objectives of this paper were to discuss the U.S. goat inventory, seasonality of demand and carcass specifications, marketing channels for selling goats, body condition scoring, and selection criteria used for grading goats. When producers understand the aforementioned attributes of the market and implement them, they will be able to take advantage of the market; thus, leading to sustainable enterprises.
**Keywords:** Seasonality of Demand, Marketing Channels, Goats, Goat Meat, Body Condition Scores

## Introduction

Over the last two decades in the U.S., the demand for goat meat has risen, but the current domestic goat supply has yet to meet consumer demand (eXtension, 2019; APHIS, 2012**)**. In 2015, the demand of ethnic consumers for goat meat far exceeded the U.S. inventory by 160% (eXtension, 2019). A major factor contributing to the increase in consumption rate in this country was persistence among ethnic and immigrant groups (e.g., Hispanics, Africans, and Caribbeans) in maintaining their religious or cultural practices by including goat meat in their diets (McKenzie-Jakes, 2007). The strongest demand for goat meat in the U.S. comes from the East Coast, Southern California, Detroit, Florida, and the Northeast corridor stretching from Washington D.C. to Boston (Agricultural Utilization Research Institute, 2001). Most importantly, the Census Bureau projected that there would be a shift in the ethnic and racial makeup of the U.S. by 2055 (Colby and Ortman, 2015). Thus, the Hispanic population is expected to grow by 5.9%, and other ethnic and racial groups combined are expected to rise by 6.4%, further increasing the demand for goat meat in this country (Bump, 2015).

A small segment of Americans of European ancestry is also selecting goat meat as a nutritious gourmet food item. Addrizzo (1989) reported the average American consumes 130 pounds of beef, 65.5 pounds of pork, 63 pounds of chicken, 15 pounds of fish, and 15 pounds of turkey per year; thus, their diet is disproportionately high in saturated fats. Yet, goat meat is higher in iron content and lower in fat and cholesterol compared to most traditional meats consumed in the U.S. (USDA, 1989). Furthermore, Hill (2013) reported that if given a choice, ethnic consumers that traditionally consume cabrito or chevon (goat meat) preferred fresh goat meat instead of the frozen imports from New Zealand or Australia. These facts have created a myriad of marketing opportunities for American farmers in earning a source of income.

## U.S. Goat Inventory

According to the USDA National Agricultural Statistics Service [NASS] (2017), the total U.S. goat inventory (dairy, meat, and fiber goats) was 2,640,000. Of the 2017 numbers, approximately 2,000,000 were meat goats, less than 500,000 were dairy goats, and less than 200,000 were fiber goats. USDA NASS (2018) reported similar data for 2018, with a total inventory of 2,620,000. Texas had the largest population of meat goats (795,000), followed by Tennessee (104,000), Oklahoma (82,000), California (80,000), Missouri (71,000), Georgia (70,000), and Kentucky (57,000). Wisconsin had the highest dairy population (47,000), followed by California (40,000), Iowa (31,000), Texas (26,000), Pennsylvania (15,000), the New England states (14,600), Minnesota (14,000), and New York (13,000). Additionally, Texas had the largest number of fiber goats (75,000), followed by Arizona (33,000), New Mexico (9,500), and California (3,500).

Furthermore, the USDA NASS (2017) reported a total of 2,171,000 head of breeding goats; 393,000 were replacement kids under one year of age; 1,614,000 were does one-year-old or older, and 164,000 were bucks one-year-old or older. The total number of market goats and kids was 469,000 in 2017. Regarding numbers for 2018, USDA NASS (2018) reported a total of 2,161,000 head of breeding goats; 394,000 were replacement kids under one year of age; 1,604,000 were does one-year-old or older, and 163,000 were bucks one-year-old or older. The total number of market goats and kids was 459,000. Although the number of goats in this country has remained relatively stable over the last two years, most ethnic consumers cannot consistently find domestically raised goats or goat products to purchase to meet their specific needs.

## Seasonality of Demand and Carcass Specifications

As U.S. demographics continue to shift, producers must understand many ethnic groups have specific goat carcass requirements; one carcass type does not fit all consumers. Most importantly, goat meat is predominantly consumed around specific religious holidays or special events. Thus, the demand for goat meat is often seasonal. For instance, Hispanic consumers usually prefer young suckling kids weighing between 20-35 pounds (carcass weight), specifically during Easter, Christmas, and New Year's (Simon, 2013). Cinco de Mayo is also a popular occasion for Hispanic consumers where goat meat consumption is high. This annual celebration is held on May 5th of each year to commemorate the Mexican Army's victory over the French Empire at the Battle of Puebla Lo (Lovgren, 2006). People from the Caribbean prefer intact male goats (bucks) between 60-80 pounds live weight, sometimes does (female goats) are acceptable for consumption during fall festivals (Simon, 2013). Demand is also high for Christmas and New Year's celebrations.

Muslims prefer goats 70 pounds live weight, or 35 pounds carcass weight. The goats must be slaughtered and prepared according to Muslim law (Halal). The kids can be male or female but must be less than one year of age (Simon, 2013). Muslims typically consume goats after Ramadan, the fasting period, during holidays. The fasting period and holidays are based on the lunar calendar, and they change from year to year. The two main holidays or festivals are Eid al-Fitr and Eid al-Adha. Eid al-Fitr marks the end of the Ramadan. Eid al-Adha, the second holiday, "commemorates the willingness of Ibrahim to sacrifice his son Ishmael"; it occurs three months after the Ramadan (Eleftherious-Smith, 2014). The preferred carcass for these festivities is blemish-free. Males should be intact (with testicles), weighing between 60 to 100 pounds live weight, and all goats must be slaughtered using the Halal ritual (Simon, 2013). Therefore, it

would be advantageous for producers to become familiar with the ethnic calendars. Also, producers should plan their breeding programs when goat meat is in most demand and the price paid per pound or per animal is more profitable (Interfaith Calendar, 2016).

## Marketing Channels for Selling Goats

In the U.S., there are several marketing channels by which goats are sold. The most popular ways are to sell them either directly from the farm or indirectly through a livestock auction. Producers selling their goats at the farm gate generally set the prices for their animals. Goats may be sold by the head or by the pound. Thus, the price the animals are sold for may vary between farms. Breeding stock can cost $100 to well over $1,000 depending on the animal's genetics and pedigree, structural correctness and conformation, and the breeder's reputation. For commercial herds, the prices may vary depending on the animal's age, gender, weight, health, and body condition. In essence, there is no agreed-upon standard for selling goats from the farm. When selling goats from the farm, producers do not require the assistance of a broker. Therefore, they retain all of their profit from the sale of their animals. However, when selling through a livestock auction, this is not the case.

Farmers who sell their animals through a livestock auction will be required to pay for the auction services. The cost can include a commission fee paid to the auction facility to facilitate or complete a sale. The commission may be accessed as a flat fee or a percentage of the sale, which may vary between livestock auction facilities. Producers may also be accessed fees for yardage. The charges are incurred each day an animal is kept at the auction facility. Some auction facilities may also charge insurance, feed, veterinarian, or chute costs that will be deducted from the sale price. Other options for selling live goats are at an event, through the internet, at private sales, and directly to a meatpacker, broker, or dealer.

The marketing channels mentioned are examples of direct and traditional marketing. Direct marketing may offer the best option for earning the highest economic return from the sale of goats since the animals are sold directly from a producer to the consumer. Thus, the "middle man" (e.g., broker or dealer) is not involved in the transaction. The producer does not pay any fees, and all profits go directly to the farmer. Direct marketing allows producers to realize more profit by excluding intermediaries when selling live animals or meat products. Selling at the farm gate is an example of direct marketing. However, if a producer decides to work through a broker or dealer, then the broker or dealer may come directly to the farm to purchase the animals. The broker may also charge a commission while a livestock dealer may not (Langston University, n.d.).

If a broker or dealer buys a producer's goats, the animals will probably be aggregated with others for slaughtering, processing (e.g., retail or whole cuts), packaging, and distribution. Producers can bypass brokers and dealers by working directly with a meatpacker to sell their animals, which is another example of direct marketing. Goats can be slaughtered and processed into retail or wholesale cuts at a USDA federally inspected, or state inspected facility. Value-adding is the process of altering a product's natural form to increase the price of the food item when sold. For example, sausages, jerky, ribs, and retail cuts (e.g., loin, cubed meat, etc.) are all examples of value-added products made from goats. Thus, changing the natural form of the animal will increase its value when sold and improve the farmer's profit margin. However, in addition to

processing and slaughtering fees, farmers must also consider labor costs, storage, handling, transportation costs, and state and federal regulations for selling animal products within their state and across state lines. For instance, farmers cannot sell meat products inspected at state facilities across state lines. The state regularly monitors these facilities for sanitation practices, but not for animal diseases (eXtension, 2019). Custom slaughtering facilities are not federally or state inspected. Therefore, the products cannot be sold or donated to anyone. The products can only be consumed by the owner of animals, their "household and nonpaying guests and employees" (Carr et al., 2014, p. 3). They cannot be sold, exchanged, or provided to others (Harris, 2004).

## Assessing Body Condition Scoring

Product consistency begins at the production level. It involves developing a good herd health, nutrition, and breeding program and selecting the right goat breed to enable the producer to reach their production and marketing goals. Body condition scores (BCS) can also make a difference in what the producer receives from the sale of animals. Most importantly, it can be a useful management tool to assess the amount of fat and muscle covering an animal's body. Body condition scoring is an objective measure and a skill relatively easy to learn. The condition of an animal can be measured by feeling the "cover" (muscle and external fat) overlying boney processes (ribs, hips, vertebrae, etc.). BCSs are a good indicator of an animal's nutritional status and health; farmers can adjust their feed rations or take other actions based on their animal's BCS. According to Attwood (2007), scientific studies have shown that BCS is "reliable in predicting carcass weight when used with the live weights of the goats" (p. 4). Body condition scoring uses a scale from 1 to 9, with 1 being emaciated and 9 obese. A scale of 1 to 5 (with or without increments of 0.5) is another standard scale used for BCS in goats. Animals exhibiting a score of 1 are considered emaciated regardless of the scale used. Goats with a score of 3 (using 1-5 scale) or 5 (using 1-9 scale) are moderately conditioned, while animals that score a 5 (using 1-5 scale) or 9 (using 1-9 scale) are considered obese. Goats should have a BCS of 5 to 6 before the breeding and at the end of gestation to avoid metabolic disorders such as pregnancy toxemia when using the 1-9 scale. When using the 1-5 scale, the goats should have BCS of 3 to 3.5 to avoid the same problems mentioned previously. Excessively fat goats can experience kidding difficulties if the birth canal is lined with too much fat. The Appendix, Figure 1, reflects a BCS chart using a 1-5 scale.

## Selection Criteria

As mentioned earlier, BCS and assessing live weight are two management tools that can help determine the potential meat yield of an animal. In addition, an animal's conformation, muscle-to-fat/bone ratio, and relative body size (Jones, n.d.) also influence their lean meat yield. In 2001, the USDA approved the Institutional Meat Purchase Specifications (IMPS) selection criteria for live goats and goat carcasses. This standard was developed to provide the industry with guidelines to evaluate live meat goats, assess important carcass traits, and standardize processing practices for goat carcasses (McMillin and Pinkerton, n.d.). Through IMPS, live goats and goat carcasses were classified by three selection criteria which assessed the animal's conformation, the proportion of muscle-to-fat and bone ratio, and body size (McMillin and Pinkerton, n.d.). However, for this paper, only the guidelines for live weights are discussed.

Selection 1 goats (live goats) generally have thicker muscles, pronounced on the outside aspects of legs, have full ribs and loins, and are moderately thick in the shoulder regions. Selection 2 goats are average meat-type animals with moderate muscling (Jones, n.d.). Selection 3 goats have inferior meat-type conformation and are poorly muscled and/or narrow in legs, shoulder, ribs, and loin areas. This type of goat is very angular and has a diminished appearance. Each selection class is further divided into three levels. For instance, selection 1 class is divided into higher conformation ($1^{99}$ highest conformation), middle conformation ($1^{50}$ middle conformation), and lowest conformation ($1^{00}$ lowest conformation). Selections 2 and 3 are subdivided into the same three levels (highest, middle, and lowest conformations) (Jones, n.d.). The goat in photo 1 (Appendix) is a selection 1 goat with moderate conformation. Photo 2 (Appendix) shows a selection 2 goat with a moderate conformation. Photo 3 (Appendix) shows Selection 3 goat with moderate conformation. Selection classes, BCS, and live weight measurements can help producers market goat meat that meets buyers' and consumers' specifications (Jones, n.d.). However, this selection criterion should not be confused with livestock judging, which was established to measure how closely an animal represents the accepted standard for its breed.

## Conclusion

Goat production is one of the fastest growing livestock industries in the U.S. today and is expected to rise as the ethnic population in this country continues to increase. Some Americans of European ancestry are also consuming goat meat because it is a healthier meat choice compared to most traditional meats. Yet, demand for domestically produced goat meat has outpaced the current supply. Realizing these market opportunities, small producers are raising meat goats as a source of income. However, to help fill these markets, producers must be familiar with the ethnic calendars to develop breeding programs when goat meat is in most demand. They must also be aware of seasonal demand for goat meat and pay close attention to the BCS of their goats and retain those animals with selection criteria 1 and 2 in their breeding herd to produce goats able to earn a premium price. Ultimately, when producers understand attributes associated with the market and implement them, then they will be able to take advantage of the market, and realize viable enterprises.

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## Appendix

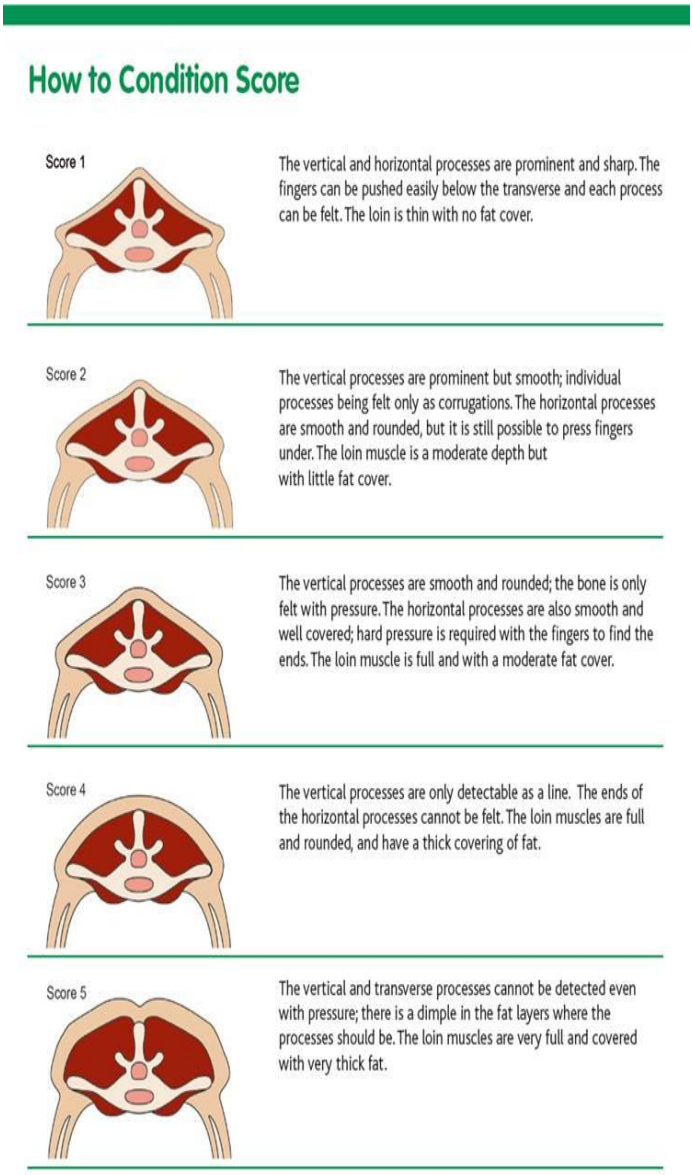

Figure 1. How to Body Condition Score: Adapted from Farm Health Online

Photo 1. Selection 1, Grade 1[50]. Adapted from Steve M. Jones (n.d.)

Photo 2. Selection 1, Grade 2[50]. Adapted from Steve M. Jones (n.d.)

Photo 3. Selection 1, Grade 3[70]. Adapted from Steve M. Jones (n.d.)