

# Small Ruminant Symposium: Sustainable Meat Goat Production

**529 Sustainable health management for meat goats.** J. Miller\*, *Louisiana State University, Baton Rouge.*

Small ruminant (specifically goat) production has steadily increased in the US over the past few years. The objective of profitable production is to efficiently manage an operation to grow healthy animals that can be marketed in a timely manner. Issues with health are a major constraint to such production. It is important to maintain an overall balance in providing overall health care. This balance should include pregnancy and neonatal care, regular vaccination programs, parasite control and nutrition among other aspects of management. The one health issue that is always present is parasites, especially nematodes (worms). Appropriate worm control based on local/regional conditions may in some cases be the deciding factor on whether farms can stay in business. There are many sources of information available to the producer, and input from local veterinarians should be included where ever possible. For sustainable meat goat production, it is very important for the producer to be well-informed and to be willing to implement appropriate practices for worm control and other health management concerns.

**Key Words:** goat, health, sustainable

**530 Sustainable feed and forage management for meat goats.** J.-M. Luginbuhl\*, *North Carolina State University, Raleigh.*

Meat goats (*Capra hircus*) offer an opportunity to effectively convert pasture nutrients to goat meat, a product currently marketable and in demand by a growing segment of the US population. The “generalist” feeding behavior of goats gives them a clear advantage in their ability to utilize a variety of landscapes and plant communities. Managed to match their nutritional demands, plant communities, represented by pasture and browse species, can provide an abundant, low-cost feed supply, supplanting the need for expensive concentrates. Classified as intermediate feeders preferring browse or forbs, meat goats perform well grazing cultivated pastures if grazing management practices match their grazing behavior. The primary goal is to have control of the animal grazing pattern so that one can dictate the degree of defoliation and the frequency of defoliation. In addition, the needs of the plants as well as the needs of the animals must be taken into consideration to obtain efficient animal production over several years. Therefore, research focusing on forage evaluation and animal performance, aiming at developing year-round forage feeding programs which allow for as much grazing as possible throughout the year, was conducted to meet the needs of this emerging industry. Depending on the environment, a year-round forage system may consist only of perennial and/or annual grasses and legumes and browse, or a more complex system that includes a mixture of temperate perennial and/or annual grasses and legumes as well as summer or sub-tropical perennial and/or annual grasses and legumes, and browse. The potential of *Sericea lespedeza* [*Lespedeza cuneata* (Dum.-Cours) G. Don], a highly drought tolerant warm-season legume containing tannins, was also investigated as an alternative to the use of traditional anthelmintics to control the gastrointestinal barber pole nematode (*Haemonchus contortus*). In conclusion, the foraging habits of goats have important environmental implications by ultimately increasing the sustainability of production systems.

**Key Words:** controlled grazing, forage system, meat goat

**531 Live animal and carcass evaluation of market goats.** K. W. McMillin\*<sup>1</sup>, K. W. Braden<sup>2</sup>, J. C. Gregorie<sup>1</sup>, M. A. Persica III<sup>1</sup>, and J. N. Maynard<sup>1</sup>, <sup>1</sup>*Louisiana State University Agricultural Center, Baton Rouge,* <sup>2</sup>*Angelo State University, San Angelo, TX.*

Official grades and standards establish the criteria and levels of traits to distinguish among products which allow for communication of terminology, price, and specifications between buyers and sellers in the market. The beef, pork, and lamb industries have well established criteria for live evaluations and meat carcass grading systems that facilitated centralized locations for slaughter, shipment of boxed primal cuts, and longer product shelf life. The meat goat industry is currently less organized, lacking pictorial standards for market goat selection criteria terminology, transporting live goats rather than meat to consumption locations, selling carcasses instead of cuts, and losing market opportunities with ethnic or health conscious consumers due to unavailability of goat in most retail stores. Goat consumers have expressed interest in purchasing smaller portions of goat than carcasses or half carcasses and desire to use lean color and meatiness in their purchase decisions. Yield grades estimate amounts of lean meat based on accurate evaluation of the relative ratios of lean, fat, and bone tissues. Kid goats deposit minimal fat covering over the longissimus dorsi, which is often too small in meat goats, averaging 29 kg with 14 kg carcasses, to accurately measure for estimation of carcass muscling. Differences from other red meat have necessitated use of other indicators of fat, lean, and bone proportions. Correspondingly, results from 725 goats and their carcasses will be used to determine relationships of traits such as fatness over the ribs, in the flank regions and leg conformation with yield of lean goat. Quality or estimated palatability must be defined with terms and traits that can be objectively measured to facilitate communication, product transactions, and trust in the meat chain. The live animal, carcass, and muscle composition traits that contribute to tenderness, juiciness, and flavor of goat meat are being determined on Semimembranosus muscles from the same goat population samples. Development of suitable live animal and carcass evaluation standards will facilitate advancement of marketing and logistical technologies to benefit the meat goat industry.

**Key Words:** goat, evaluation, grading

**532 Current trends and future strategies for marketing goat meat.** M. Ibrahim\*, *Fort Valley State University, Fort Valley, GA.*

Goat meat is one of the most widely consumed meats in the world, especially, in developing countries. Although goats have been in the United States for centuries, they were mostly produced for milk and fiber. It was only in the early 1990s that the United States developed serious interest in meat goat production. Prior to the early 1990s, goat meat came mostly from culled milk and fiber goats. Today, meat goat numbers are far greater than all the other types of goats in the United States. Since the early 1990s, both demand and supply of goat meat have increased tremendously. Much of this has been attributed to the influx of recent immigrants from non-European countries where goat meat is widely consumed. For example, the US 2010 census data shows that of the 40 million foreign born population, 85% of them were from non-European countries. The demand for goat meat surpassed the supply in the early 1990s. This resulted in an increase in goat meat importation, making the United States the world leading and net importer of goat meat. Over 90% of US goat meat imports come from Australia. The US goat meat market is very informal and segmented. Some of the market segments

include Hispanic, African, Asian, various religious groups (Muslims, Hindus, Christians, and Jews) and the health-conscious consumer. None of these groups is homogeneous. For example, Muslims are permitted to eat goat meat but not all Muslims consume goat meat. Some are very strict about the method of slaughter (Halal) and others are not. The future of the meat goat industry and goat meat market depends on increasing the availability and visibility of goat meat to the wider American consumers by adopting various marketing strategies such as making goat

meat available in grocery stores. In a recent consumer study in Georgia, many respondents said that they did not have access to goat meat. The survey results also indicated that 85% of the respondents said they had never tasted or eaten goat meat. When asked whether they would be willing to buy goat meat if it was made available in their local store, about 54% responded in the affirmative.

**Key Words:** goat meat, demand, supply