

# Animal Sciences



## Starting a Meat Goat Operation

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### Introduction

Meat goat production is on the rise in the United States. This is due to a strong demand for goat meat as a result of increased immigration, importation of goat breeds to the United States from other countries, and an interest in developing environmentally friendly methods of vegetation control.

Goat meat is known as ‘chevon,’ when referring to that of an older kid, and ‘cabrito,’ when referring to a kid less than a week old. Goat meat is appealing as a healthy alternative since it is very lean. Most goat meat in the United States is consumed by ethnic peoples and faith based religious groups. Because of this, the demand for goat meat is about double the current production in the United States, and there is room for growth in this industry.

Goats tend to adapt well to most environments, although most types originated from hot and dry climates. They can be raised efficiently on a small acreage as well as in large commercial operations. Goats can also be produced as purebred breeding animals for seed stock or show. They make a very good youth project or 4-H project.

### Breeds

Several meat goat breeds exist in the United States, including the Spanish type, Boer, Kiko, and different crossbreds. Meat goat breeds are selected on the basis of meat quality, not milk production as in dairy breeds. Spanish goats are considered to be the most adaptable, and their color and size varies. They are hardy, good foragers, and tend to make excellent mothers, but they have an inconsistent disposition that makes them harder to handle. Spanish goats normally are smaller in size, grow slower, and have less muscle than other meat breeds. Crossing Spanish goats with improved



Boer Goat  
*Photo Courtesy of UMass Student Run Goat Herd*

breeds will result in offspring that produce larger kids, greater milk production, and an improved disposition.

Boer goats have a thicker, more heavily muscled frame, and tend to be more comfortable around humans. Boer goats originated in South Africa and were imported to the United States. They usually have a white body and red head, and can be large, with adult does weighing up to 200 pounds. Boer-Spanish crosses often do very well, with increased muscle and faster growth rate than pure Spanish goats, and does that are good mothers and milkers.

The Kiko breed, originally from New Zealand, is often chosen for its good survival, growth rates, and maternal traits. These are very hardy animals that are great foragers under tough conditions. They are known for achieving significant rates of growth without supplemental feeding. The Kiko is normally white, with a large framed body. The males of the species exhibit characteristic horns.

In selecting which breed of meat goat to raise, it is important to take into account each particular situation and what the goals are for the herd. Crossbreeds are often selected because they are less expensive than purebreds, and can demonstrate good qualities of more than one breed.

### Stock Selection

When selecting or purchasing breeding stock, acquiring healthy, problem-free animals is very important. Buy from reputable breeders, and observe the soundness of their entire herd before purchasing from them. Also observe the attitude and temperament of potential breeding stock. Avoid high-strung and excitable animals. Find out if the animals have been on a parasite control program, and if they have records of vaccinations and preventative health management.

Assess the animals' general health, including vital signs, body condition, and coat. The normal temperature range for goats is between 101.5 and 103.5° F. The respiration rate for goats is about 12-15 breaths per minute, and heart rate should be between 70 and 80 beats per minute. Look for an animal with a shiny hair coat, and body condition score appropriate to its production stage. Be wary of buying overly fat or thin goats.

Look for good conformation, including leg and foot health, teeth, and overall body structure. Pay particular attention to udder health; check that there are no hard spots and look for good teat placement. Physically palpate the udder on potential breeding does. When checking the legs and hooves, avoid limping animals as they may have footrot. In as much as teeth are important for normal grazing, check for broken teeth or wide gaps. The teeth can also be used to age an animal, because each set of mature teeth indicates one year of age.

Make sure that the animals do not exhibit scours (diarrhea), or abscesses, and that they are not overweight. Other things to consider (or questions to ask of a breeder) are milking ability of does, typical weaning weights of past kids produced, and kid survivability, as these are factors in a successful herd.

### Facilities and Equipment

Although goats are hardy animals, they do require protection from rain, snow, and wind. A suitable shelter could be a sturdy shed that is enclosed on three sides and faces south. Roofing that is low to



Spanish Goat  
Photo Courtesy of Marvin Shurley

the ground will help to trap body heat and keep the animals warmer. When housing multiple goats together, allow for 8-12 square feet per goat, or 5 square feet for night housing.

Fencing must be effective in keeping goats in and predators out. Woven wire (4x4 in or 6x6 in) combined with barbed wire is typical fencing for goats, but they can also be trained to electric fencing, at a minimum of 4,000 volts. Electricified smooth wire fencing is usually much cheaper than woven or net wire fencing. Electricified netting can be used to subdivide sections of pasture as well. The openings on 4 x 4 inch woven wire are small enough to confine the animals and prevent their heads from getting stuck. Pay attention to uneven terrain and gaps in fencing that may allow a kid a chance to escape.

It is also helpful to have a smaller catch pen, which can make handling for general management practices such as vaccinations, deworming, and foot trimming go much more smoothly. This handling pen should be at least 4 feet tall and have solid sides. A chute and other components of a handling system can make working and managing goats easier.

Other necessary equipment includes feeders and water tanks. Feeders should be raised off the ground in order to keep goats out. When constructing feeders, allow enough space for all the goats in a pen to eat at once. About 16 inches per doe, and 12 inches per kid is adequate space on a feeder. An open tank drinking system where the goats have access to water at all times is recommended.

## How Many Goats Per Acre?

This is a common question by those interested in starting out with goats. The answer depends upon a number of factors, including type of forage available, soil fertility, amount of rainfall, and size of goats. A general range in stocking rate in Indiana would be from 3 to 6 does per acre. Overstocking can lead to increased parasite and health problems, so to error on the conservative side at first is probably a good policy.

## Management Practices

It is important for overall herd health to work with a veterinarian to develop a comprehensive health plan for the goat herd, including deworming, vaccination and foot trimming.

One of the most serious health concerns in goats is internal parasitism. A parasite control program should be tailored to each individual farm. For more information on internal parasites, see Purdue Extension publication AS-573-W on “Managing Internal Parasitism in Sheep and Goats.”

Goats should be vaccinated for *Clostridium Perfringens* Types C and D and tetanus (CD&T) at appropriate times. Trimming of the hooves is also an important management practice to prevent footrot, which is a bacterial infection between the two toes of the animal.

## Reproduction

Goats are classified as seasonal breeders, meaning that they begin to cycle during the shorter days of fall. However, breed and individual differences also dictate when does will breed and kid. Although peak fertility is in the fall, many of the does from meat breeds will cycle out of the fall season.

Females will reach sexual maturity at 6-7 months of age, and bucks can usually be bred at 5-7 months. Does will continue to cycle every 21 days until January or February, unless they are bred. An increased rate of reproductive efficiency can be reached utilizing good management techniques and nutrition, with a goal of 3 kid crops in 2 years. Does can have triplets, and twins are common.

Goats have a gestation period of about 150 days. A single buck can be used to breed a herd of 25 to 30 does. Conscientious breeders can also control the breeding date to ensure that kidding occurs during times of the year when more forage is available, since lactating does have increased energy requirements.



Kiko Goat  
Photo Courtesy of Bear Creek Kikos

## Nutrition

In feeding goats, use forages as much as possible. Goats are preferentially browsers, and can be used to control unwanted vegetation.

Traditional Indiana pastures are suitable for goats to graze. Forage type and quality should match up with the animal's nutritional needs.

At times, it may be necessary to supplement the diets of goats with extra protein or energy. This can be traditional feed grains, byproduct feeds, or commercial feeds designed for goats. Late gestation, lactation, growth of replacement breeding stock, or prior to breeding are times when forages may need to be supplemented. Minerals and salt also need to be provided year round to goats. They can be offered in a block, loose, or mixed in feed.

## Predator Control

Good fencing is just as important for keeping predators out as it is for confining the goats. Guard animals such as dogs, llamas, and donkeys can also be very successful in deterring predators. Practices such as penning goats in at night, controlling kidding for times of lower predator activity, such as late fall to early winter, and kidding in protected areas can all help to reduce herd losses due to predation. Disposing of any dead animals quickly is also important in order to not attract unwanted predators.

## Marketing

In order to successfully market meat goats, producers must identify their client base of mainly ethnic populations. Breeders can market directly to their customers, having established clients and knowing when they will be interested in purchasing the goats.

Another option is to take the goats to sale barns and auctions, especially before religious holidays. Some of the kid crop could also be sold as replacement breeding stock to other producers. Producers can also work together to market animals, forming goat pools.

## References

- American Kiko Goat Association. Characteristics of the Kiko Goat.
- Coffey, Linda. Meat Goats: Sustainable Production. National Sustainable Agriculture Information Service.
- Machen, Rick. Boer Influence on the Meat Goat Industry. Florida Goat Production Conference.
- Nye, L. T., & Moore, R. Meat Goat Production and Budgeting. The Ohio State University Extension.
- Schoenian, Susan. Producing and Selling Sheep and Goats to the Ethnic/Religious Meat Markets. Western Maryland Research & Education Center Maryland Cooperative Extension.
- Singh-Knights, D. & Knights, M. Feasibility of Goat Production in West Virginia: A Handbook for Beginners. West Virginia University.

### Disclaimer

This fact sheet reflects the best available information on the topic as of the publication date.

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