

GETTING STARTED IN THE MEAT GOAT BUSINESS

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Selecting and Evaluating Goats for Meat Production



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To My Producers

Florida A&M University
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New publications from the "Getting Started in the Meat Goat Business" series are coming soon

Website <http://www.famu.edu/goats>

This publication is also available on CD

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Introduction

Whether you are starting a purebred or commercial goat operation there are some basic skills and knowledge you should acquire before selecting animals for your farm. While visual characteristics are important parameters for selecting goats for your herd, there are four production traits that should also be taken under consideration. These traits are adaptability, reproduction efficiency, growth rates and carcass merit. These performance indicators can assist you in increasing genetic improvements in your goat herd as well as enhancing productivity and profitability of your farm operation.

Production Traits

Adaptability

Goats are able to survive and reproduce under a wide variety of environmental conditions. However, some breeds are better suited in certain climatic conditions than others. For example, the Spanish goats may perform better in the arid Edwards Plateau in west-central Texas rather than the humid subtropical climate of Florida.

Adaptability, therefore, refers to how well an animal can adjust to their production environment. Since, adaptability is a low heritability trait, improving this characteristic in your herd may take some time. It is therefore, advisable to select goats that will be maintained under the same environmental conditions in which they will be expected to perform on your farm.

Reproduction Rates

Reproduction efficiency is one of the most important economic traits in terms of livestock production. Maintaining good reproductive functions in the herd is pivotal to the success of any livestock production system. Productivity and profitability in the

goat herd are measured by ovulation rate, conception rate, the number of kids born, the number of kids weaned and the frequency in which they are produced. Therefore, the doe must be able to give birth three times every two years and wean 1 1/2 to 2 kids per year to earn her keep in the herd (McGowan, 1995).

However, the seasonal breeding behavior of goats raised under the environmental conditions of Florida, has seriously limited the producer's ability to increase herd productivity. Does generally come into estrus (heat) from late August through the early part of January with the anestrus period (absence of heat) occurring in late spring. This breeding behavior does not always coincide with optimum marketing periods and may reduce your opportunity to access markets that bring the highest economic returns. Fortunately, there are a few synchronization drugs available today that can be used to induce heat in out-of-season does. Check with your local veterinarian, extension agent or extension specialist for additional information.

To improve reproduction efficiency in your goat herd, select replacement does that were born as twins and cull all nonproductive does.

Growth Rates

Growth rates consist's of two phases; pre and post-average daily gains. High pre-weaning average daily gains



reflects the genetic potential of the kids, and the mothering ability of the doe (Luginbuhl, J. 1998).

Post-weaning average daily gains (ADG) is the measure of the individual animal's performance and the type of management it has received up until this point. Stunted animals are usually the results of poor management during the critical stages of development. To increase post-weaning

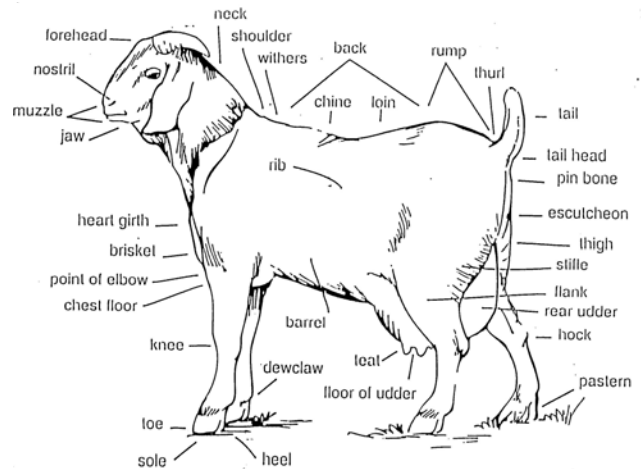
ADG, select animals that are healthy and have the highest postweaning growth rates.

Carcass Merit

Some carcass traits to consider are dressing percentage, muscle-to-bone ratio and the distribution of lean-to-fat and fat-to-bone. For meat goats the dressing percentage ranges between 40-55% depending on the breed and condition of the animal. When the animal grows, the fat percentage will increase and the percentage of bone decreases. The percentage of lean muscle doesn't change much and the legs and the shoulder of the goat tends to have the highest muscle mass on the animal (Luginbuhl, J. M. 1998).

With the possible exception of carcass characteristics, these production traits can be easily evaluated on the farm, if the producer has maintained good production records and has access to a scale (Gipson, date unknown). If these records are not available, you will have to solely rely on your visual skills and sense of touch to assess the merit of the animals that you are considering purchasing for your farm.

To improve carcass merit in your herd, select animals that are heavy muscled in the rear, loin and front and hindquarters.



25 does) to start your goat business and don't purchase the most expensive animals in the beginning. Raising goats can be quite a learning experience for the first two to three years. Many times you will learn from your mistakes, but the consequences can be financially devastating. By starting small, you will be able to learn if your feeding, breeding and herd health program are suitable for your herd without major repercussions. When you are ready to expand your herd, you will have gained several new skills and knowledge to identify potential problems, weaknesses and strengthens in your business.

Educating Yourself

Before purchasing any animals, take a livestock judging class if one is offered in your community, familiarize yourself with the standards for each breed and learn the anatomy of the goat to be able to make an accurate and consistent comparison between individuals within a herd and between farms. You will also need to be able to identify good and bad characteristics in the animals in order to deduce which goats can best assist you in reaching your production and marketing goals.

As a last word of advice, start small. Purchase a small group of animals (1 buck to

Breeds of Meat Goats

A breed is considered a group of animals that are genetically related and can pass on certain characteristics to their offspring. There are over sixty recognized breeds of goats that exist in the world today.

In the U.S., there are three primary types of goats. They are the dairy, fiber and meat goats, which totals over 2.5 million heads. All of these goats can be used for meat production, however, with the introduction of the Boer goat into many breeding programs around the U.S. in the early 90's, certain breeds and crosses are now accepted exclusively for meat production.

The breeds of meat goats that are available in the U.S. today are listed below:

Boer Goat

The Boer goat from South Africa was imported into the U.S. in 1993. The word "Boer" is derived from the Dutch word meaning "farm." This name was probably used to distinguish these native goats from the Angora goats that were imported into South Africa during the 19th century.



In the U.S., the Boer goat is considered the leading meat breed because of its exceptional carcass yield, high muscle to bone ratio (7:1), high dressing percentage (55-60%) and early maturity. Boer goats have high fertility rates (200%), mature early (4-6 months) and are prolific.



A mature male can weigh between 260 to 380 pounds and the female between 210-300 pounds. They are capable of obtaining average daily gain over 0.88 pounds under feedlot conditions. Boer does can also produce three sets of kids every two years with weaning rates over 160% (Casey and Niekerk, 1988).



They are horned animals with concave faces and pendulous ears that are similar to the Nubian goat. The most popular color in the U.S. is a solid red head with a white stripe extending from the muzzle

to the tip of the head with a solid white body. Boer goats can also have a solid red body sometimes referred to as the chocolate Boer. Today, the Boer goats are used extensively in breeding programs throughout the U.S. to upgrade native goat herds.

Kiko

After two decades of intensive selecting, the Goatex Group, LLC corporation of the New Zealand developed a breed of goat called the Kiko meaning meat. The Kiko's were selected for growth rates, fertility



rates, early maturity, soundness of feet, kidding ease, enhanced male virility and ease of maintenance. Like the Boer goat, the Kiko

was imported into the U.S in the early 1990's. Kiko are hardy, large framed, mature early, have enhanced fertility, more resistant to parasites and have the ability to achieve substantial weight gains under extensive conditions. Generally, Kiko's are white in color, but some are born multicolored. The female is capable of producing and rearing her offspring under less favorable conditions (American Kiko Goat Assoc., date unknown).

Spanish

The Spanish goat of Texas were first brought into America in 1540 by Coronado Desoto and other Spanish explorers (She-



(ppard, 2007). It is believed that some of these goats either escaped or were released into the new country. Spanish goats are not



considered a breed, rather they were developed through natural selection. Spanish goats are agile creatures with no specific body, ear shape, horns, hair and color. They are able to thrive in less desirable environmental conditions while producing and rearing their young.

Texas Genemaster

The Genemaster is a hybrid cross that is 3/8 Kiko and 5/8 Boer. This breed was developed in Texas in the early 1990's. In trial breeding studies conducted by the



Goatex group. The Genemaster attained the same average weight at 296 days, two months earlier than the purebred Boer goat.

In carcass studies, the third generation of offspring on average yielded more meat per carcass than the purebred Kiko. The Genemaster is also more resistant to internal parasites, a characteristics that has manifested itself from the Kiko bloodline (American Kiko Goat Association, date unknown).

Myotonic (wooden leg or fainting goat)

The origin of the Myotonic goat has been traced back to Marshall County in Tennessee where a man named Tinsley came to town



around the 1880's bringing along his wife, his goats and a "sacred" cow. After a short

stay, Mr. Tinsley left his wife, his cow and sold his goat herd to Mr. R. Goode before leaving the community.

Today's Myotonic goats are believed to be the descendants of Mr. Tinsley's herd. The Myotonic goat or better known as the "Tennessee Stiff-Leg" or "Fainting Goat" is one of the few breeds of goats that are native to the U.S. and are found in the eastern part of the U.S. The Myotonic's in Tennessee are smaller than the Myotonic's in Texas.



This breed of goat suffers from a recessive trait called myotonia. When frightened, they will experience extreme muscle stiffness causing extension of the legs and neck and they will fall over like a statue. This process will last about 10-20 second.

The Myotonic goat has been selected for meat production because of its heavy rump and deep chest area. Colors may range from black and white to multiple colors. The does have been reported to have good milk production and good kidding ease (Inter. Fainting Goat Association, date unknown).

Pygmy

Pygmy goats are heavily muscled, short legged goats from western and eastern African counties. They were first imported into the U.S. in 1959



by the Rhue family of California and the Catskills Game Farm in New York. By the

1980's the population of Pygmies goats in the U.S. increased significantly. Pygmies are mostly raised for pets, shows and sometimes meat. The mature doe measures "16" to "22 3/8" inches at the withers and the colors can range from caramel, brown agouti or solid black (Pygmy Goat Association, 1995).

Florida Native

The Florida Native or commonly referred to as the wood goat are meat-type goats that are native to the state of Florida. This goat



is not a breed, but has evolved over time due to natural selection and are possibly descendants of the Spanish goat. The native goat of Florida has no defined color pattern or weight range. Florida Native goats are hardy and have exceptional kidding percentages, twinning rates, weaning rates and are quiet prolific (McGowan and Nurse, 1990). Birth weights generally range between 5-7 pounds and weaning weights 20-25 pounds at fourth months of age.

Florida Native goats are rarely seen today probably because many producers are using the Boer goats in cross breeding programs throughout the state of Florida.

Nubian Goat

The Nubian goat originated in South Africa. It is large in size and carries more flesh than other dairy breeds. This makes it a very useful dual



purpose animal that is it can be raised for dairy and meat purposes. The udder of the Nubian is capable of holding large quantities of milk, but it is sometimes more pendulous than that of the Swiss breeds. The Nubian breed leads the way for the dairy breeds in butterfat production: it produces on average, 5% or more butterfat content. This is surpassed only by the Nigerian Dwarf, Pygmy goat and Boer goat breeds, which are less likely to be used for large scale milk production.



Because of the higher fat content, the Nubian milk has a better flavor than lower fat milks. Milk production is lower than the Saanen goat and Alpine breeds. The Nubian breed standard specifies large size, markings can be any color. Black, red or tan, are the most common colors in combination with white. The ears are long, pendulous, and the nose is roman shaped (concave).

A mature doe should stand at least 30 inches at the withers and weigh 135 pounds or over, while the males should stand at least 35 inches at the withers and weigh at least 175 pounds. The Nubian is sociable, outgoing, and very vocal (Oklahoma University, 1996).



Finding a Reputable Breeder

Word of mouth is often the best way of finding reputable goat breeders. Talk with other producers to find out where they pur-

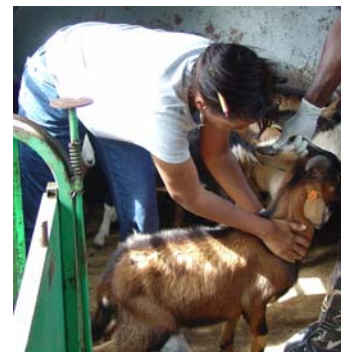
chased their livestock or if they have any animals for sell. Also, check the internet for websites of goat organizations. Obtain the addresses and phone numbers from their membership list to find out who may have animals for sell or what breeders they recommend.

Other options include contacting your local extension office or veterinarian for recommendations on where you can purchase quality goats. Check the classified ads in your local newspaper, goat magazines or the Florida Market Bulletin for a listing of goat breeders. You may also meet other goat producers that have animals for sell while attending your local goat shows, field days, workshops or goat conferences.

Whatever you do, don't become so desperate or impatient that you buy your animals from a livestock auction because chances are they are someone else's culled animals. Furthermore, don't purchase any animals from a farm where the goats are mismanaged or from a farm that has a history of disease related problems. Take your time to find a breeder that raises healthy animals with good visual appeal and the management system on the farm is exceptional.

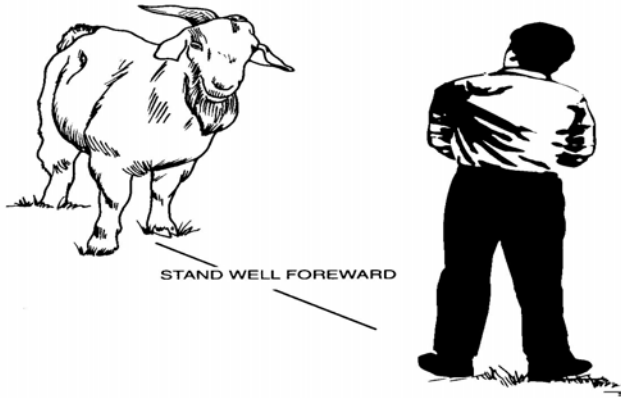
It is also preferable that you identify a breeder that has maintained good production records. If these records are available, it will enable you to select individuals from the herd that has the best growth potential and reproduction rates. Unfortunately, not everyone keeps good records.

In addition to the records, appraise each animal individually and take a look at their offspring if they have any at the time. Upon closer inspection, check for structural defaults, abnormalities (i.e., lumps, abscesses), health problems and muscling characteristics.



Judging Breeding Stock

Once you know which farms you will be visiting to potentially buy your livestock, keep a mental image in your head on what you think the idea goat should look like for



These characteristics are the following:

your farm. Develop a system by which you can evaluate each individual animal. For example, stand back at least 25-30 feet from the goat to see the whole animal at one time. Observe the animals from the side, front and rear. Look for good and bad characteristics in each animal such as frame size, structural correctness, muscling, conformation, health and finish/condition. Palpate the animal to confirm or disapprove of your initial selection. These characteristics can best be appraised by observing the general appearance of the animal, the forequarter, the hindquarters, the back, the head and the neck of the animal.

1) Structural Correctness- refers to the skeleton, feet and legs of the goat.

(2) Muscling- can be determined by examining the loin, the rump, forequarters and hindquarters.

(3) Conformation - refers to the combination of structural correctness and muscling which refers to the frame and shape of the animal.

(4) Growth- is a reflection of the overall skeleton size and development of the meat goat.

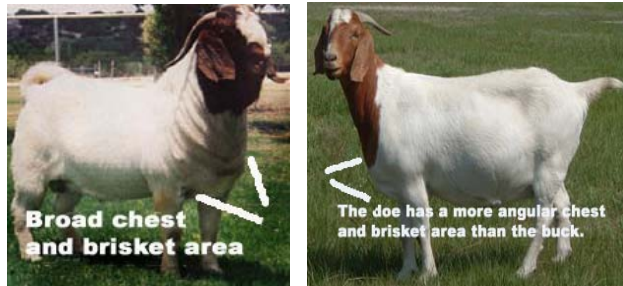
(5) Balance/Symmetry-describes how the parts of the body blend together including eye appeal.

(6) Finish/Condition- measures the amount of fat covering the body. External fat can be measured by a procedure known as body condition scoring (BCS). By palpating the spine and transverse processes, the goat can be assigned a numeric value between 1 (thin) and 9 (obese) to determine fat density. Body condition scores can also be used to monitor the nutritional status of the herd (McGowan and McKenzie-Jakes, 1996).



General Appearance

Animals selected for meat production must be able to move around freely to forage. They must have good depth of body, they must be rectangular in shape when viewed from the side, show superior growth, show



good muscle development and structural sound. The buck should be masculine in appearance and the female feminine in appearance.

Ideally, the hair should be smooth and glossy. Rough hair is generally an indication of external parasites or malnutrition. The skin should be loose and pliable with flesh evenly covering the body which helps the goat adapt to various climatic conditions and it



may provide possible resistance to external parasites.

Signs of potential problems includes continuous coughing, difficulty in walking, diarrhea, mucous discharge from the eyes or nose, rough hair, thin, isolating itself from the rest of the herd, vomiting, swollen joints, listless, lumps or abscesses.

Head and Neck

The meat goat should have a strong head with bright eyes, wide nostrils and a well-formed mouth. The neck should be medium in

length, well-fleshed and blend smoothly into the forequarters.

The jaws must fit well together not excessively over or under shot. It is important to check the teeth especially if you are looking for breeding stock. Older animals may not have many reproductive

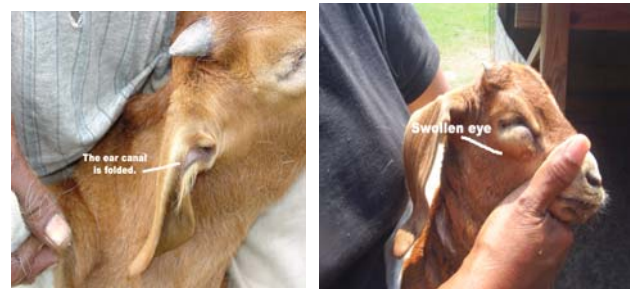


Fig 1. Folded ear (left) and swollen eye on the right picture.

years left and may not be worth the invest-

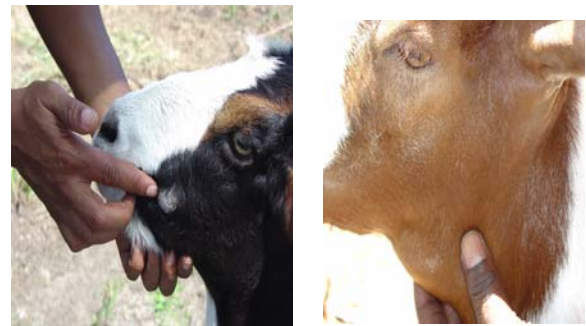
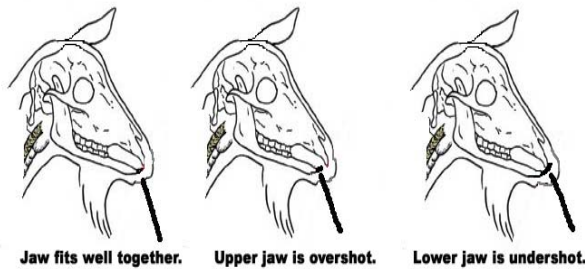


Fig 2. Wart on face (left) and a lump in the neck area (right).

ment. While you are examining the alignment of the jaw, check the teeth to estimate the age of the animal. Mature goats have 32 teeth of which 24 are molars and 8 are incisors. All of the incisors are in the lower jaw. The upper front jaw consists of a dental pad.

When the animal is less than one year of age, the teeth are small, white, sharp and narrow (refer to fig.3).





Around one year of age the center teeth will fall out and are replaced by two large permanent teeth (refer to fig. 4.). The permanent teeth are large, wide and broad.



Fig 3. 1 day old to 1 year old (left) and 1 year old to two years old.



Fig 4. 2 years old to 3 years old (left), 3 years old to 4 (center) and 4 years old to 5 (right).

When the teeth are half way up from the gum line, it will take another six months (the animal is 1-1/2 years old) before the animal is a two years old. As the animal approaches 24 months, two more teeth will fall out. One on each side of the yearling teeth. When the new teeth are half way up from the gum the animal is 2-1/2 years old. When the teeth are completely up from the gum line the animal is 3 years old and so forth. Between three to four years of age, the adult goat will have six permanent teeth (fig. 4) and eight permanent teeth in the fifth year.

At five, the goat will have a complete set of teeth (8 permanent teeth) and the best way to determine the animal's age at this point is by observing the amount of wear on each set of incisors. Around the age of six, the two yearling incisors will be begin to show wear. The teeth closes to the yearling incisors will begin to show wear and the animal will be seven years of age. When the

permanent teeth begin to spread apart or fall out, the animal is definitely old (10 years or older) unless the teeth have been knocked out. An animal that has its jaws misaligned, or teeth missing may not be as efficient in grazing. (Ensiminger, 1986)

Culling Faults:

- Bull Neck
- Neck to long or thin
- Parrot mouth (upper jaw is overshot)
- Under shot jaws
- Narrow muzzle

After examining the teeth, check the color of the mucous membranes of the eye and compare the results to the eye color on the FAMACHA Anemia Guide.

The chart has five eye color scores. A score of one or two should result in a eye color that is rosy red or red-dish pink indicating that the animal requires no deworming treatment.

Goats with a score of 3 may or may not require any treatment (optional). However, goats that exhibit a score of 4 or 5 (ranging from pinkish white to white) will require immediate attention.

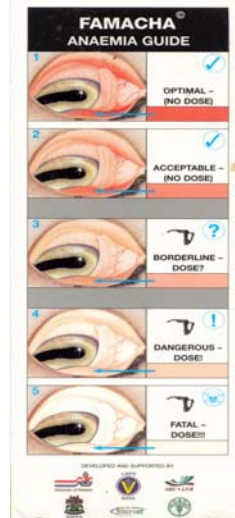


Fig 5. FAMACH Anemia Guide

Forequarters

Next, examine the forequarters. The forequarters include the shoulders, withers, brisket and forelegs. The brisket areas must be broad with fleshy shoulders blending smoothly in proportion to the body. This insures ample room for heart and lung development and shows evidence of proper musculing and ligament strength. Loose or winged shoulders may lead to problems in mobility

due to insufficient strength to support the weight of the animal's body. The withers should be slightly rounded and slightly higher than the height at the hip bones and moderately covered with flesh.

From the front view, there should be adequate width between the forelegs with muscling in the forearms.

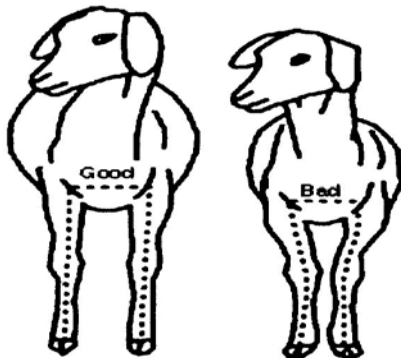


Fig 6. Drawing adapted from Dumas and Higbie, (1995).

The legs should be straight, medium in length, perpendicular to the ground and show evi-

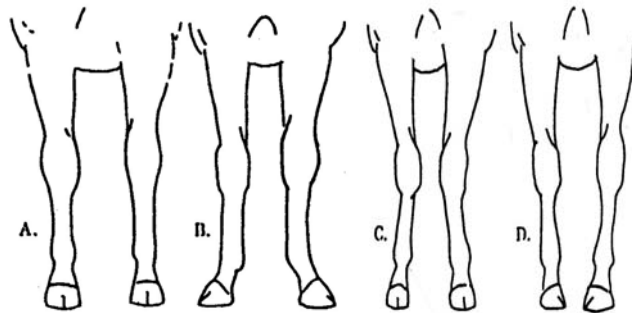


Fig 7. Front legs correct alignment (A). Incorrect alignments (B) toes pointing outward, (C) knock knee and (D) bow legged

dence of muscling. Goats with large legs are usually more muscular than goats with smaller legs.

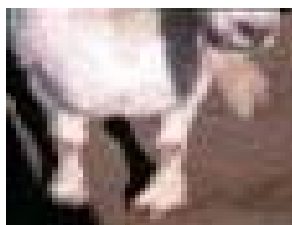


Fig 8. Toes pointing inward (left) and toes pointing outward with swollen knees (right).

Ideally, the legs should move with front feet pointing straight ahead and not turned inward or crooked as shown in figure 7-9. Therefore, goats with strong parallel legs are usually more hardy and agile. Strong pasterns with well-formed feet and tight toes are also essential for mobility of the goat. This may prevent possible injuries, infections and the hooves are easier to trim. Any deformities in the pasterns may cause the animal to become lame.

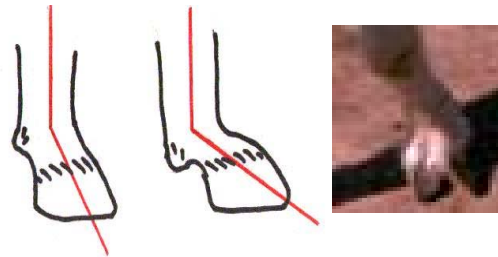


Fig 9. Pasterns are correct (left), pasterns are incorrect (center) dewclaws are too close to the ground, pasterns are incorrect the toes are open (right).

Culling Faults:

- Posted Leg
- Knock or Bowed Legs
- Pasterns turned inward or outward
- Weak Pasterns
- Loose (Open) or Winged Shoulders
- Open or Splayed Toes
- Malformed Feet
- Enlarged or Swollen Legs



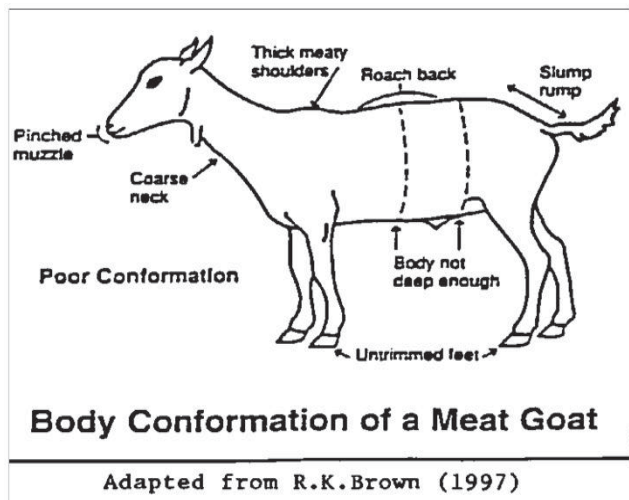
Fig 10. Trim your goats hooves regularly to prevent lameness.

Body

The ideal goat should have a long, deep, barrel that is wide from the front to the rear of the animal. The heart girth must be large with fleshy well-sprung ribs. The chest floor should be muscular and wide between the forelegs which indicate the animal's capacity to consume large quantities of feed and forages and the animal's growth potential. Does however, should have a more angular chest area than the buck. A



The ideal goat should have a long, deep, barrel that is wide from the front to the rear of the animal. The heart girth must be large with fleshy well-sprung ribs. The chest floor should be muscular and wide between the forelegs which indicate the animal's capacity to consume large quantities of feed and forages and the animal's growth potential. Does however, should have a more angular chest area than the buck. A



straight long, back is a desirable characteristics in meat goats. This indicates the stru-

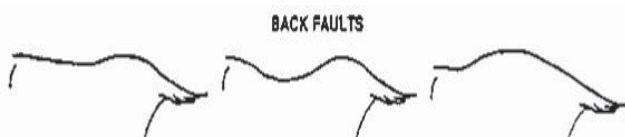


Fig 11. Short rump (left), sway back (center), steep rump (right) and large growth on the back of the goat (below).



ctural soundness of the animal. The loin and rump area are the best gauge for determin-



Fig 12. Length of loin area (left) and thickness of loin area (right) Pictures adapted from Barkley and Spahr, 2005.

ing muscling in the goat. The loin should be long, wide and oval-shaped on each side of the backbone (Dumas and Higbie, 1995).

Culling Faults:

- Excessive Short Back
- Sway Back
- Roach Back



Fig 13. Assessing the thickness of rump area (left) and assessing the BCS of the animal. Left pic adapted from Barkley and Spahr, 2005)

While examining the thickness and length of the loin and rump of the goat, check for muscling under the animal's point of elbow and check the overall condition of the animal's body.

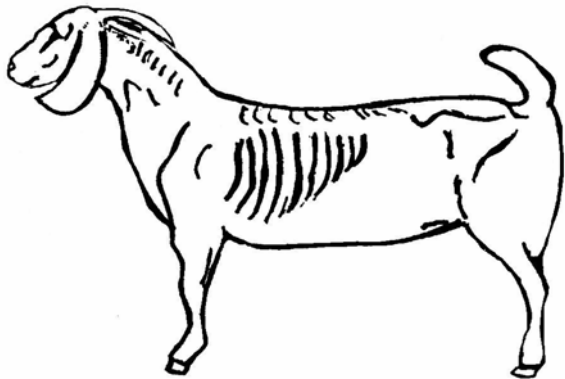
Body Condition Score (BCS):

Body condition score or BCS refers to the amount of fat covering the body. External fat can be measured by palpating the spine, ribs and hip bone area. The goats are then assigned a numeric value between 1 (thin) and 9 (obese) to determine fat density. BCS are a good indicator of the nutritional status and health of the animal.

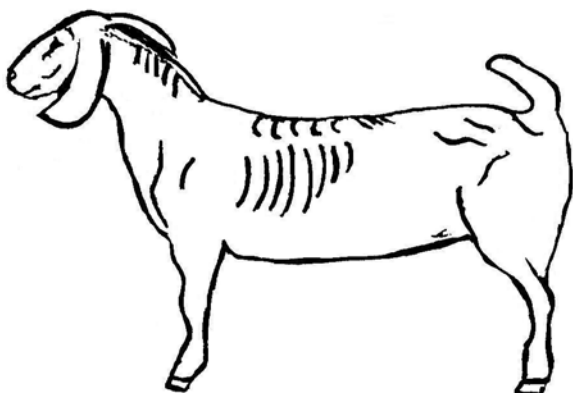
System for Assessing Body Condition Scores in Meat Goats

Thin (1-3)

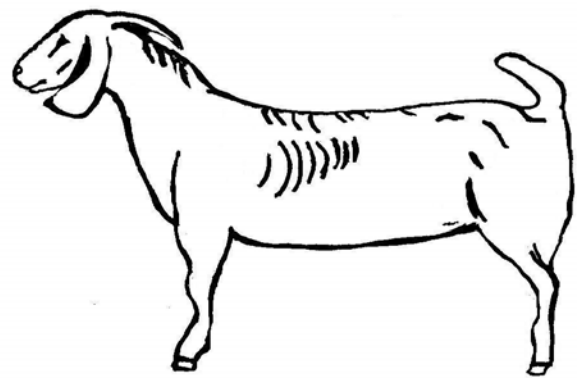
1 Emaciated- Goat extremely thin; no fat covering the spine and hip bone areas. The tail bone and hip bone areas are quite pronounced and the individual ribs can be seen without palpation.



2 Poor- Goat is still fairly thin. There is little fat covering the spine and hip bone regions. The hips, ribs and tail bone are less prominent.

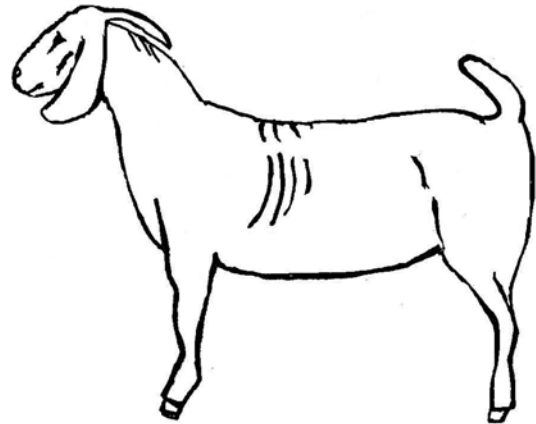


3 Thin-Ribs are still individually identifiable. There is little fat covering the tail head and spine areas.

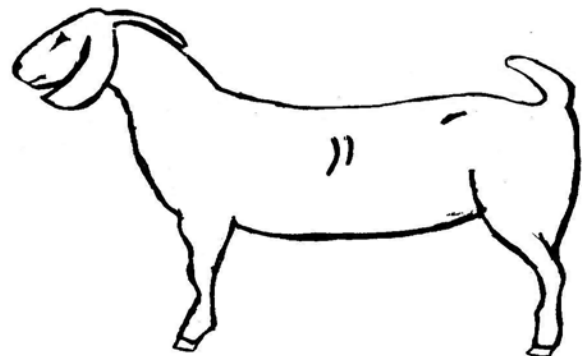


Borderline To Moderate Condition(4-5)

4 Borderline- The spine and the ribs can be individually identified by palpation, but feel rounded rather than sharp. Some fat is over the ribs.

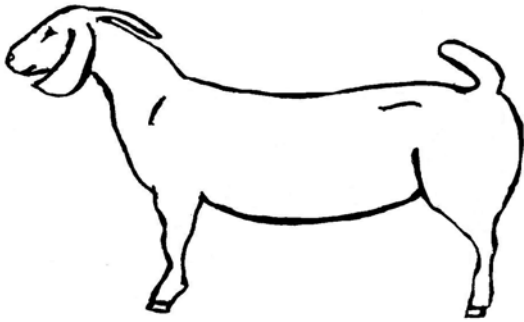


5 Moderate- The goat has a good overall appearance. Fat is over the ribs, hips, and tail bone areas and feels spongy to the touch.

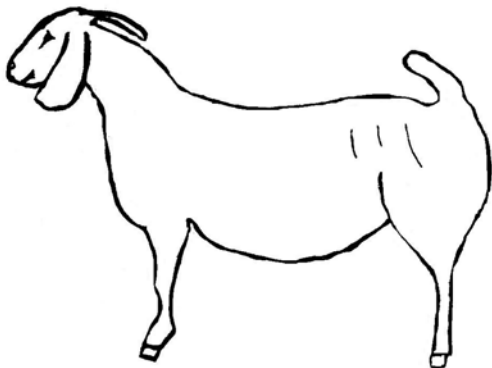


Moderate To Fat (6-7)

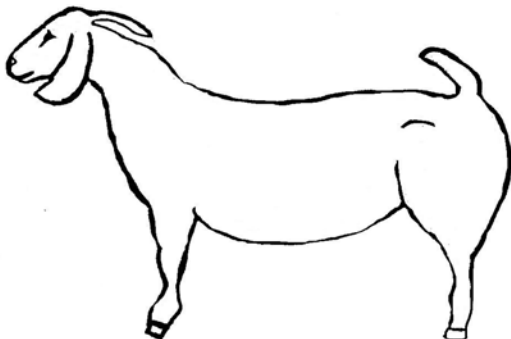
6 High Moderate- Firm pressure now needs to be applied to feel the spinous processes. Fat is observable and palpable over the ribs and tail head area.



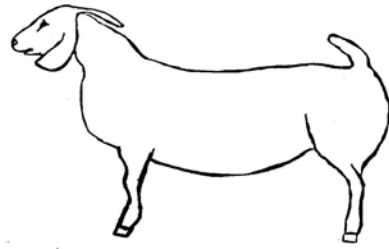
7 Good- Animal appears fleshy and obviously carries a considerable amount of fat. Very spongy fat covers ribs and tail head areas.



8 Fat- The goat is very fleshy and over-condition. Spinous and transverse processes are almost impossible to palpate.



9 Extremely Fat (obese)- The goat appears blocky, tail head and hips are buried in fatty tissue. Bone structure is barely



viable and is not palpable. Animal may have difficulty in mobility and kidding. Does in this condition may also have an increased chance of having pregnancy toxemia.

Hindquarters

Finally, examine the hind quarters. The rump should be long, wide and show muscling, gently sloping from the hips to the pin bones. The shape of the rump is important since it affects leg set, kidding ease and udder at-



tachment. The thighs should be firm, rounded and well-fleshed extending down to the hock area. The tail must be straight and able to move freely to either side of the goats body. The hind legs should be set wider apart than the forelegs when viewed from the rear end. This characteristic is a good indicator of

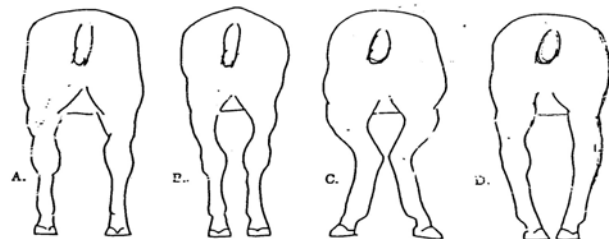
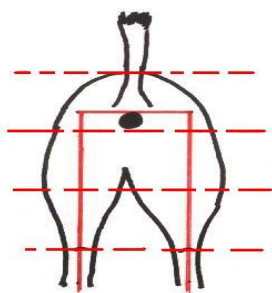


Fig 14. Correct (A). Incorrect (B) knock knee (C) sickle hock and (D) bow legged

Fig. 15 The widest part of the rear leg should be 2/3 the way down from the top of his rump to the hocks. This type of frame has growth potential (Walters, date unknown)



carrying capacity of the doe. The rear legs should be medium in length and nearly perpendicular from the hock to the hock, viewed from the side

which is ideal for walking while minimizing joint problems (Dumas and Higbie, 1995). Strong hind legs and pasterns are essential to support the weight of the buck during mating. Therefore, the feet must be straight and wide with a deep heel and level sole pointing forward.

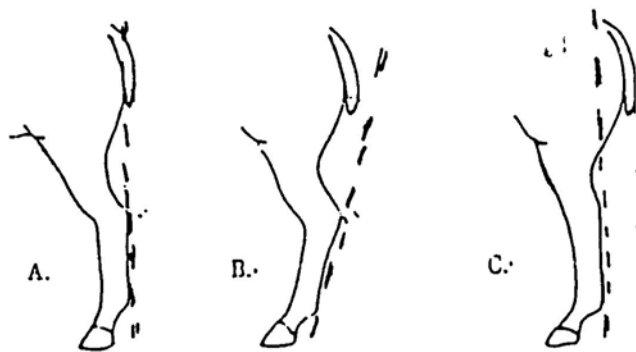


Fig. 16 (A) correct, (B) incorrect and (C) incorrect.

If the hooves are not kept trimmed (overgrown toe nails), the animal may dis-

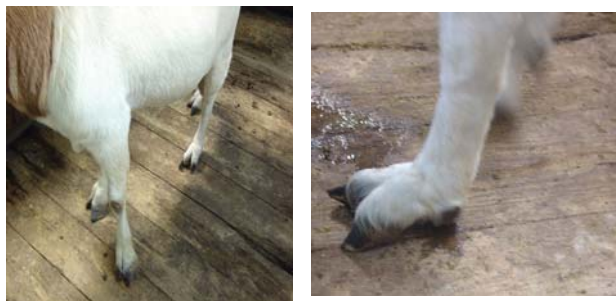


Fig. 17 Incorrect pasterns..

tribute most of its weight on its heels causing the ligaments to weaken if the condition is prolonged. This may limit the ability of the goat to move around freely and to support the additional weight of the fetuses during pregnancy.



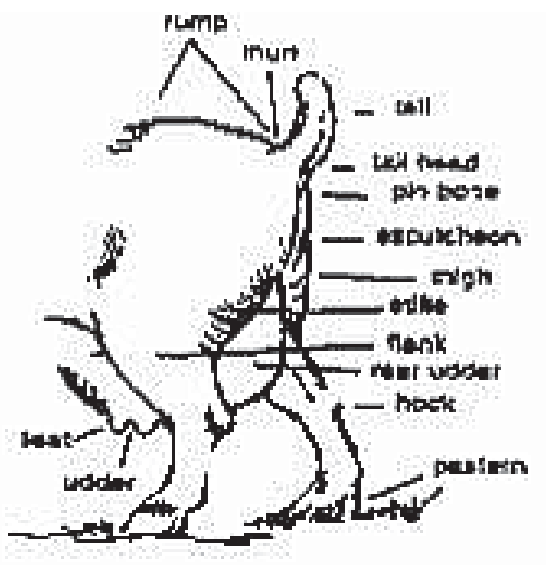
Fig. 18 The kid has white muscle disease which causes the animals hindquarters to be weak.

Culling Faults:

- Steep or Short Rump
- Flat Buttocks
- Poor Fleshy Thighs
- Any leg deformities, Cow or Sickie Hocks,
- Weak Pastern

Mammary System of the Doe

The udder must be well-formed with good fore and rear attachments while showing the capacity to produce milk. The udders must be evenly divided and symmetrical attached high in the rear with a strong medial suspensory ligament. The doe should have two functional (having an orifice-opening) teats. The teats must be uniformed, free from obstructions and properly spaced. The udder must



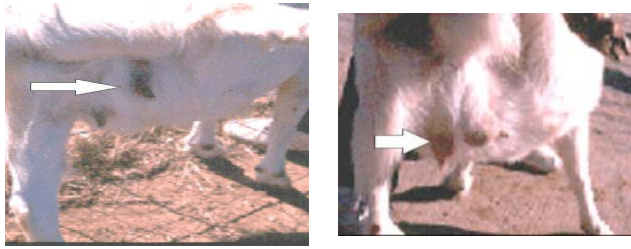


Fig. 19 Virgin doe with two well-formed teats (left). The doe on the right has two separate functional udders. Milk production is low in the goat on the right.

be pliable, free from scar tissue, mastitis or any other anomalies that might affect milk production. Ideally, the doe should have one teat per udder half. Some does may have



Fig. 20 Pendulous teat and udder (right). The doe is a dairy goat with good udder attachment, well-formed teats and good milk production.

split teats with two distinct orifices. However, young kids may find it difficult to nurse does with double orifices, oversize teats, or pendulous teats.

Culling Faults

- Oversized Teats
- Reoccurring Mastitis
- Leaking Orifice
- Non-Functional Half of Udder
- Pendulous Teats

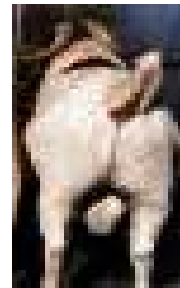
Mammary and Reproductive System of the Buck

The mammary system of the buck should consist of two rudimentary teats of uniform size, showing no evidence of an extra orifice, extra teats, split teats, bunched teats or clustered teat. The buck should also have two identical testicles. The larger the scro-

tal circumference the higher the bucks libido and fertility. The circumference of the scrotum increases with maturity and varies slightly between the breeding and non-breeding season.

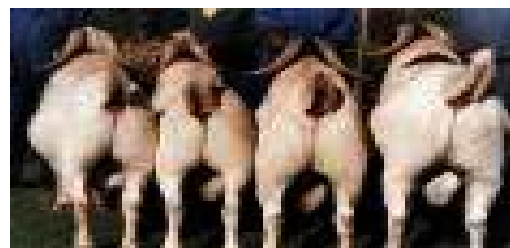
Culling Faults

- Pendulous Scrotum
- Undescended Testicles
- One Testicle Descended



A Final Note

There are several steps that should be taken when selecting goats for meat production. This will mostly depend on the production and marketing goals that you have in mind. In breeding goats, it is absolutely impera-



that they are structurally sound and able to move around freely to graze. In terms of scale and size, goats used for meat production should have a lengthy body and must appear to have the ability to grow fast. It is also critical that the animal shows good muscling characteristics, condition and depth of body. Careful selection of breeding stock can enhance carcass merit and the market value of offspring from your herd.

Meat Goat Judging Terminology

- **Correct bite** - bottom jaw must line up with the top dental pad. Some times in kids the teeth are pushed forward - but the dental pads still align. This usually corrects itself by the time their first 2 adult teeth come in. Older goats whose teeth don't align have an **incorrect bite**.
- **Parrot mouth** - bottom jaw is shorter than the top jaw causing an incorrect bite.
- **His/her mouth is out** - front teeth don't line up with top dental pad - usually the teeth stick out too far. The lower jaw is longer than the upper jaw. The mouth is "undershot".
- **Correct on his/her feet & legs** - structurally correct.
- **Tracks wide in the front/rear** - walks straight & wide in the front/rear.
- **Tracks well** - walks structurally correct.
- **Smooth over the shoulders & through the front end** - wide and flat through the rack. The shoulders tie in smoothly to the neck & the ribs.
- **Broad through his/her chest floor or good spring of rib** - this goat will have a desired barrel shape through the ribs, his front legs will be wide apart, his rack wide & smooth, and his ribs round, not flat from the spine to the breastbone.
- **Well balanced** - the goat is well put together. All the parts match & tie in correctly. Symmetrical - not real wide & powerful in the front, and narrow through the hips.
- **Weak/soft over the top** - gives behind the shoulders, falls off behind the withers. Isn't smooth through the rack.
- **Lacks volume/depth/capacity** - is narrow and shallow bodied. Front legs are set close together, and the hips are usually short & steep. This animal lacks room to have a large functioning rumen system, or lungs. Does lack adequate space to carry kids.
- **Lacks scale and size** - not big enough for its age or sex.
- **Clean him/her up on his/her feet and legs** - exhibits structure problems with pasterns or hocks - usually not serve.
- **Weak/down in the pasterns** - pasterns are weak and give when the goat walks or stands. Goat may walk on his/her dewclaws if severe.
- **Hocks in** - cow hocked. Hocks turn in when the goat stands or walks.
- **Splays out in the front** - front feet turn out when the goat stands or walks.

- **Slab sided or lacks spring of rib** - flat ribbed - these animals lack volume/depth/capacity. Narrow bodied.
- **Steep rump** - too much angle between the hook and pin bones.
- **Short through the rump** - lacking adequate distance between the hook and pin bones.
- **Short through the hip** - not enough distance between the hook & pin bones.
- **Pinched through the withers/behind the shoulders or sharp through the rack** - the rack narrows behind the withers. Usually this can be seen all the way down the ribs & behind the front legs.
- **Deep through the twist** - long between the bottom of the anus & where the legs split. Goats that are deep in the twist have more leg muscling.
- **Carcass merit** - the value of the animal when slaughtered in the carcass evaluated. Overall thickness and volume of muscle as demonstrated on the live animal indicating carcass value.
- **Stylish** - is well balanced and pretty to look at. Exhibits the characteristics of the type of animal you are judging.
- **Eye appeal** - nice to look at, flashy.
- **Good wide horn set** - horns set wide apart so not to catch legs.

Terms pertaining to does:

- **Feminine/femininity** - looks like a female. Demonstrates a "feminine wedge": is larger in the rear portion of the body. Having a long feminine neck, and feminine head.
- **Lacks femininity - masculine looking** - short & thick through the neck & head. Doesn't exhibit wedge shape.
- **Feminine wedge** - has the feminine wedge shape when profiled.
- **Correct mammary system** - Udder is functional. Teats are correct size and configuration for kids to suck. Udder shows good attachment. Details will vary with different breed standards.
- **Capacity** - room for growth, support functions including lungs & digestive tract. Also room to carry kids. In dairy goats they also refer to udder capacity.
- **In production** - in milk or heavy pregnant.

Terms pertaining to bucks:

- **Masculine** - looks like a male animal.
- **Rugged** - masculine.

- **Clean front** - free of excess hide & wrinkles.
- **Exhibit's lots of breed character** - shows the characteristics of that breed.
- **Incorrect or immature testicles** - testicles are too small for the goat's age. Testicles should be even in size. No lumps or bumps should be palpated when the testicles are examined. No severe split in scrotal sack, depending on the breed standard.

Terms pertaining to Market Goats:

- **Finish/cover** - amount of fat covering the goat. Goats put fat on two-thirds the way down the rib cage towards the chest floor first. The loin is the last place to finish.
- **Correctly finished or correct amount of finish** - wether is fed out to have the correct amount of fat covering. Is not too fat or too thin. The goat is smooth.
- **Not enough finish or lacking finish** - not enough fat & muscling.
- **Over finished** - too fat!
- **Smooth over the rack** - the goat is flat & shows good finish over the withers and ribs.
- **Stale** - past his prime. Starting to put on fat and loose their top. Internal fat causes a belly, and external fat is evident.
- **Wasty** - stale. Too much fat on carcass, both external and internal.
- **Smooth over the rack** - feels smooth over the withers and ribs.
- **Top** - muscling over the rack through the loin & hip.
- **Short through the loin** - loin (between the 12th rib & hook bones) is too short for his size.
- **Short bodied** - short from the shoulders through the hip. Lacking in overall body length (Walters, date unknown).

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