

## **Selecting Foundation and Replacement Goats**

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The selection of goats to begin a flock or add to existing programs has significant impact on the future of the enterprise. Time spent in the selection process will pay great dividends.

### **Production Goals**

Although the production goals of the purebred and commercial producer may vary greatly, the selection criteria will be similar. Areas of emphasis will vary from producer to producer. For example, the selection of additions to an established flock should be based on characteristics in which the existing flock needs improvement—muscle, size, etc.

### **Sources**

The common sources of goats are private treaty purchases, consignment sales and stockyard sales. Each has unique characteristics.

Private treaty purchases conducted off the farm provides the opportunity for the purchaser to view the operation in which the goats are being produced. Questions can be asked concerning health and feeding programs. Relatives of the goats for sale can be viewed and evaluated. A clear understanding on any guarantees can be established.

Consignment sale may offer goats from several producers. These sales may provide an opportunity to compare animals of different genetics. The quality of stock in such sales can normally be expected to be high and any guarantees are clearly stated by the sale management.

Stockyard sales may vary greatly in quality and quantity. Although many very acceptable animals may be offered, some may be sold which have been “problems” for their owners. Such sales rarely carry any guarantees.

### **Health**

Every effort should be made to purchase healthy, disease-free goats. When possible, the owner should be questioned about their health program. Sellers of breeding stock should be questioned, by the purchaser pertaining to routine vaccinations, parasite control and any special health problems they have experienced in the flock.

## **General Appearance**

The general appearance of goats will offer some insight into their present health. Condition (or fatness) of the goat will be determined by reproductive stage, level of production and age of the individual. For example, does which have recently weaned kids would be expected to be thinner than does which fail to breed or failed to produce much milk in lactation. Young does would be expected to carry more condition than older does under similar management. Does in late gestation normally will be carrying more condition than those in early gestation? Extremely thin or extremely fat goats should be avoided.

Regardless of their condition, goats should appear alert, thrifty, exhibit a relatively slick hair coat and show no signs of diarrhea or coughing.

## **Caseous Lymphadenitis (CL)**

CL is a chronic, highly contagious disease affecting both sheep and goats. A bacterium enters the goat body from small breaks in the skin or mucous membrane. In time, the infection localizes in regional lymph nodes.

Symptoms are firm to slightly fluid swellings located just under the skin at major lymph node location around the jaw and under the ears, over the front shoulders and low in the back hindquarters at udder level.

This disease is highly contagious and difficult to control. Goats with abscesses should not be purchased as breeding stock.

## **Feet and Legs**

In order to be truly functional, all the goats must have sound feet and legs. When properly trimmed to remove any excess “toe” or “undergrowth” the foot should still appear to be relatively large with the toes of equal size to insure equal distribution of body weight.

Both the rear and front legs should be on the corner of the body while standing or walking. All legs joints should be free of any stiffness that restricts movement. A relatively fluid movement with the back feet filling in the footprints of the front feet is ideal. Stiff joints and sore feet may be clinical signs of disease or genetically related problems of structure.

## **Age**

Table 1. illustrates a schematic illustration of the change in the goats’ lower front teeth as they age. A goat less than a year of age will have 8 milk (temporary) teeth. At 10-14 months, the middle two are replaced with larger adult teeth. At 22-26 months, the two milk teeth, next to the permanent teeth are replaced by permanent teeth. At 34-38 months, two more permanent teeth erupt as shown. At 46-50 months, all the milk teeth have been replaced by larger permanent teeth and the animal is called a “full” month. As goats mature beyond full mouth, the teeth will begin to show narrowing near the gum line and become loose. Goats, which have lost teeth, are referred to as “broken mouthed.” Although broken mouthed goats may still be able to graze, they may require extra care and management due to their age.

As the teeth are examined, jaw abnormalities can be observed. The teeth should meet flush with the upper hard dental pad. Abnormalities include both a short jaw with the teeth behind the “face” of the dental pad and a long jaw, which results in the teeth extending well beyond the dental pad.

Age is an important consideration in the selection of bucks. A growing kid (6-8 months) should be able to service 15-20 does. A yearling may service up to 25-35. A mature buck may service 50 females or more. Management plays an important part in buck/doe ratios, pen-breeding favors more does being serviced while pasture breeding may reduce the number bred per buck.

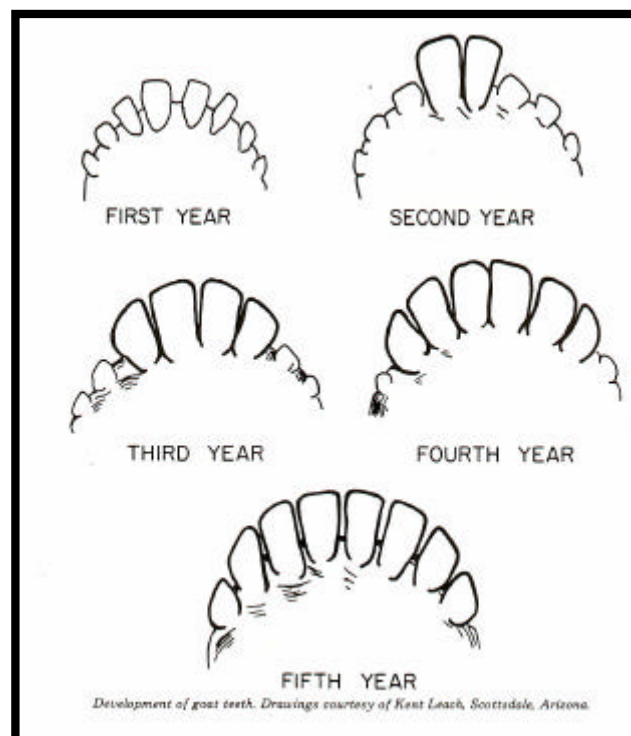
### The Udder-Females

As goats are restrained for close inspection, their udders should be checked for potential problems.

1. The fore udder attachment should blend into the body wall.
2. The rear udder attachment should be high and wide
3. The udder should be moderate in size and free of any lumps or other signs of disease such as soft or hard lumps. Fat in the udder replaces milk-secreting tissue. Over feeding replacement, females should be avoided.
4. The number of teats will vary from 2 to 4 (more common in Boers). Teat size should be moderate and each teat should possess only one orifice. Teats should be adequately spaced to permit easy nursing.

### Table 1.

#### The Age of a Goat



## Visual Evaluation

Visual observation of the doe is essential for determining structural correctness of the animal.

1. The head of does should show feminine refinement with both eyes bright and functional. Horn growth should not affect performance or create management problems.
2. The neck should be moderate in length, blending into the shoulder at a 45<sup>0</sup> “angle”. The shoulders should be set well apart but laid in smooth with the rib cage.
3. The chest floor should exhibit good width between the front legs and set relatively low. Narrow fronted, low capacity animals should be avoided.
4. The topline - back, loin and rump should be long and level.
5. The rump should be long and will tend to slope from the hipbone to the pin bone.
6. The hips and pin bones should be set well apart; such a rump structure can reduce kidding problems. Since the goat is a grazing ruminant, which often carries more than 1 fetus, it is essential that the rib cage should provide adequate capacity. Capacity is determined by the length and spring of rib. Since the rib cage extends only roughly 2/3 the distance from the shoulder to the rear leg, fullness in the area closer to the rear leg is often only gut-fill.
7. The fore and rear flanks should be relatively deep giving a somewhat square shape to the area between the shoulder and the rear leg.

## Muscle

Indicators of muscle in visual appraisal of goats are muscle dimension in the forearm, shoulder, back loin, rump and lower rear leg. Although females generally will not show the expression of muscle shown in the male counterparts, they still need to show muscle shape in the areas mentioned above.

As goats are evaluated in rear view, the back and loin should have a rounded appearance, the rump should be long and wide and thickness in the lower rear leg should carry down to the hock.

## Weight

Weight of animals must be taken into consideration as well as body-condition (fatness). Goats accumulate most of their body fat stores internally but handling the spine and transverse processes can give a good estimate of body condition. Goats in a low body condition score are characterized when the backbone and ribs are not covered by muscle and fat tissue. When these bone structures are visible to the eye, the goat would be considered thin and given a “1” score. In contrast, when the backbone and ribs are difficult to feel with the tips of the fingers, the animal is considered fat and given a “4” score. Weights for females in 2-3-body condition should be 150-160 pounds. Males in similar condition should weigh (200-225 pounds)

Doelings being considered as replacements to be bred to kid at a year of age should be large enough to weigh 70% of their mature weight at breeding and in moderate body condition. Young pregnant does should be fed such that adequate growth of both the doe and the fetus is accomplished well. It is best to feed pregnant doelings and early yearlings separate from the mature does.

### **Special Considerations-Bucks**

Although the selection criteria outlined above applies to all goats, males require some unique considerations.

### **General Appearance**

Buck should exhibit a more masculine head and neck. They will be “heavier” shouldered and more massive in their muscle structure. They should stand on more dimension of bone than does the female counterparts. Special attention should be given to rump and rear leg structure and soundness since body weight is carried entirely on the rear legs in the mating process.

The scrotum of bucks should be carefully palpated. The testicles should feel resilient with approximately the same firmness as muscle.

Circumference of the testicles is related to sperm production. It is easily measured by placing a flexible tape around the widest part of the scrotum with testes held at the same level. Scrotal circumference of yearling bucks should be approximately 11 inches increasing to 13 inches in mature bucks. Bucks with greater scrotal circumference should be expected to produce more semen and sire earlier sexual maturing offspring and in addition expressing greater fertility.

### **Management of Flock Additions**

Regardless of the apparent health status of newly purchased animals, there may still be an opportunity to introduce disease as when new animals are added to the flock. Problems may be related to shipment and adjustment to new surroundings. New “additions” should be isolated from the resident goats for 30 days. Many producers utilize this time to inoculate these goats for diseases normally found in the existing flock and treat them for internal parasites.

### **Breed**

Figure 2. outlines an upgrading scheme, which might be used to develop a flock of meat goats. The Boer breed is used for illustration purposes. If the best females available (Cost vs. type and health) are grade does carrying no meat goat blood is then bred to purebred bucks, the offspring will be  $\frac{1}{2}$  Boer,  $\frac{1}{2}$  grade. Their muscling and growth rate would be expected to be close to the average of their parents. Each successive cross to purebred sires increases the percentage of meat type (Boer) blood and parallels the muscling, growth rate and other characteristics of the sire breed.

**Figure 2**

<u>Does</u>	<b>Upgrading Breeding Scheme</b>		<u>Offspring</u>
Grade (Dairy)(G)	<u>Bucks</u>	Purebred “Meat-Boer (B)”	1/2B 1/2G
1/2B 1/2G		Purebred “Boer”	3/4B 1/4G
3/4B 1/4G		Purebred “Boer”	7/8B 1/8G
7/8B 1/8G		Purebred “Boer”	15/16 1/16G
15/16 1/16		Purebred “Boer”	Purebred

*Save only Sound Females Preferably from Multiple Births  
Change Bucks Every Generation*

**Summary**

Selection of replacement and foundation stock will be systematic and thorough. Health and confirmation should be prime considerations. When production records are available, special consideration should be given to kidding rate, weaning weights and age at market weight. Genetics, which result in more kids born and raised, heavier weaning weights and fewer days to market, make these animals more profitable.

