Herd Health for Quality Control

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Quality control means different things to different people. This presentation will discuss quality control for breeding stock and for commercial slaughter stock. While similar, there are some distinct differences which should help producers make the decision of what kind of production system fits best for their operation.

Quality control means animals are prepared to handle stresses and remain healthy. These animals have the ability to pass their positive traits onto their offspring. To ensure quality control, the producer must monitor animals and the farm constantly. It helps to have veterinarians, or other producers visit the farm periodically to keep get other opinions of how animals look. Things can change slowly, which can be missed by the producer.

Breeding Stock

Breeding stock are animals that are usually purebred and which commercial producers will purchase to produce slaughter stock from and probably some replacement breeding stock. From a quality control standpoint, these animals need to have good conformation with no faults that would affect their breeding capabilities. They need to be free of diseases, in good condition and have a high level of vitality.

While many producers look for particular genetics to bring into their herds, environmental conditions are equally as important. Many purebred breeders have wonderful, well-known genetics, yet also have pampered animals who may not do well in a commercial operation. Producing animals that are raised in an environment similar to the buyers will provide animals that will smoothly transition to the new ranch or farm.

Slaughter Stock

Slaughter stock are young animals, both male and female, that are raised for the meat market. These animals are usually under a year of age, can be crossbred and are produced under a variety of feeding systems. From a quality control standpoint, these animals need to produce a high quality meat product, and be free of diseases that would affect their ability to grow well to a marketable weight. They need to be finished to the desired weight as efficiently as possible on pasture with few purchased feed inputs.

Disease prevention and elimination

Breeding stock breeders have a responsibility to produce and sell animals that are free of infectious, contagious diseases. Commercial producers must produce animals that will produce a carcass with no evidence of disease. These different goals mean differences in production methods. Diseases which are detrimental to the marketability of breeder stock may not be as critical in a commercial slaughter stock herd.
It can be hard to determine the level of quality control in breeding stock by a buyer unless all animals in a herd can be seen. Quality control of slaughter stock, on the other hand, is easier to determine as the animal and the carcass will show signs if affected by diseases that affect the carcass. Other diseases, which can certainly be a problem, may not affect the final product.

To ensure quality, breeders should vaccinate for certain diseases, have good sanitary practices and cull animals that are highly prone to parasites, foot problems, and other disease problems that would hurt the profitability of a commercial breeder.

**Farm Assessment**

Now that we have defined quality control, it's time to assess the farm. The producer must be very honest in this assessment. A series of questions to ask might include:

- What are the goals for my farm and where am I in reaching my goals?
- Do I have the quality of animals to sell for breeding stock that someone would want to buy?
- What disease, nutrition or stress problems do I have?
- What can I do to address these problems?
- Do I have the experience needed to sell high quality breeding stock?
- Is my slaughter stock a consistent quality?
- What does my farm provide in the way of nutrition and health benefits?
- How can I improve my farm that would improve my animals?

Once you have assessed your farm, then you can begin to address the issues that are of most concern for the type of operation you have or wish to have.

**Herd Health for Breeding Stock**

Breeding stock needs to be free of infectious and contagious diseases. To start with, vaccinate for diseases most likely to cause a problem. This would include Clostridium perfringens, types C and D and tetanus at a minimum. Other diseases for which there are vaccines include caseous lymphadenitis, soremouth, footrot, Chlamydia, Vibrio and lepto. None of these vaccines are 100% effective, and these diseases are best avoided. If a producer has some of these diseases, then eliminating them is important, especially with very expensive goats. The higher the quality of the genetics, and thus, the higher the price, the more important this will be.

Chlamydia, Vibrio and Lepto can all cause abortions. If the latter two are truly problems in your area, then vaccination will be the best solution. Chlamydia is not as much of a problem in goats as it is in sheep, and is mainly due to bringing in goats which were affected the previous year. Goats with chlamydia will have abortions or weak kids, and then have no further problems in subsequent years.
because they have acquired immunity against the disease.

Soremouth and footrot are introduced with new additions to the herd. Therefore, it is essential to quarantine new animals for a minimum of two weeks and then carefully examine them before moving them out of the quarantine area and into the herd. Little scabs from soremouth can be overlooked quite easily and they can contaminate a farm for years. Some animals are carriers of the footrot bacteria and show few signs. However, examination of the feet, including trimming will uncover the rot.

Caseous lymphadenitis, also known as CL, is a disease that many are very fearful of. Some animals will develop internal abscesses, but these animals usually have some kind of immune system dysfunction. These animals would not be a good part of any breeding program. Other animals may develop external abscesses, usually around the jaw line or in front of the shoulders. They are contagious and the bacteria will also contaminate the farm for years. While not as serious as internal abscesses, breeding stock producers need to determine the level of infection in their herds, and decide how important it is to take the measures needed to rid themselves of the disease. Abscesses must be treated when they are ready to rupture, not before. All treatment materials and surrounding hay, straw and other environmental materials must be collected and burned.

CAE and Johne's are two other diseases which are contagious. The blood tests for these are not 100% accurate. There is also controversy about how important it is to test for these. For breeding stock producers, especially those who are selling very high priced goats, they need to be very aware of these diseases. If any signs of these diseases should ever appear in their herd, then they must have a plan on how to deal with them. Heat treating colostrums and pasteurizing milk is an effective way to control CAE as well as Mycoplasma. This is a routine practice in many purebred dairy goat herds. Purebred meat goat herds may find this is a helpful practice but will have to weigh the time and labor involved to determine its economic necessity.

**Herd Health for Commercial Stock**

Commercial stock producers should vaccinate for Clostridium perfringens, C&D and tetanus. Beyond that, they need to carefully assess the health status of their goats and determine what other disease problems they have. Buying stock from reputable and clean breeding stock producers is the best and most economical way to manage herd health. This is what I personally have always done. By having animals that do not start out with any major infectious diseases, I do not have to spend time and money treating these diseases.

The goal of commercial goat producers is to have a marketable goat in as short a time period as possible. Having unhealthy animals will slow that process down, plus require time and money to treat, all of which reduce profit and personal satisfaction with the goat enterprise.

**Sanitation**

Sanitation is an important part of herd health. However, many producers seem to forget the importance of good sanitation. Clean animals and clean living conditions prevent many disease problems. Even goats with infectious and contagious diseases will be less likely to cause problems if areas are clean and dry.
Wetness and mud are a stress on animals which weakens their immune system and increases susceptibility to disease problems. Cleaning barn areas on a regular basis to rid areas of soiled and wet bedding will keep goats drier and cleaner, which will also lessen stress. Nutritional requirements are also increased when goats are stressed, and when they are wet and muddy. This means they will eat more or will lose more weight if not fed more.

In barns and areas where goats regularly lie, ammonia buildup is the other problem that occurs with poor sanitation. A producer needs to get down at the level of the goat to make sure there are no ammonia odors. Ammonia can weaken the respiratory system, increasing the chances of pneumonia.

There are times when goats will be wet and muddy, especially commercial goats. The key is to keep these times to a minimum. Healthy goats will be able to handle these times with little problem. It's the duration of these times that is important.

**Nutrition**

The nutritional level of both breeding and commercial stock is the cornerstone of any herd health program. Nutrition of goats can also be one of the most puzzling and difficult issues to deal with. What is fed to a goat is usually different depending on whether producers are raising mainly purebred breeding stock or commercial stock.

Breeding stock producers often feed many different types of supplemental feed, in an attempt to create and maintain "bloom", the term for a healthy, shiny, good condition goat. Commercial producers raise goats on browse or other fresh forages, perhaps supplementing with some grain or grain byproducts. There is no reason for commercial goats not to have bloom also.

Body condition scoring will help producers determine if their feeding program is good. Physical appearance is another aspect to consider, including whether or not the rumen is full. Goats need to have a shiny, smooth hair coat. They need to have bright eyes, with an alert condition.

Simply looking at pasture is not always effective if the producer is unaware of what the goats will eat and whether or not they are eating what is fed to them. Producers need to be with their animals on a regular basis, observing their feeding behavior. Many pastures are full of green grass that they think is great pasture for their goats, only to find that the goats aren't eating it.

**Parasites**

Parasites are probably going to end up being the disease condition with the most impact for both breeding stock and commercial producers. As more herds end up with internal parasites resistant to all the currently available chemical dewormers, the more important knowing and understanding management strategies for parasites will become.

For breeding stock producers, this could end up being the difference between success and complete failure. As more producers become aware of the problems with dewormer resistance, the more they will be asking questions about parasite management and what the current program is of an individual breeding stock producer.
It is critical that breeding stock producers know what dewormers their goats may be resistant to. They need to carefully plan for how they will manage against internal parasites in the coming years. Culling animals that show the most problems with parasites, along with their offspring, may help them the most. This may be very difficult to do, especially if the culled animal is one which has a conformation or pedigree that brings top dollar. But by doing this, the herd will be strengthened in the long run.

FAMACHA testing needs to be carried out on all goats. Deworming animals before they leave the farm of purchase, possibly with two dewormers, will help a new farm avoid pasture and farm contamination with resistant worms.

**Conclusion**

Much of herd health for quality control is common sense. It's easy to get caught up in using the latest and greatest gadgets. It can also be very confusing to hear ten different things that a producer should be doing to ensure high quality animals. But it's essential that producers assess their animals, their farm and their abilities and knowledge first. If things are going well, then producers are at the fine-tuning stage. Don't mess with success. If animals don't look like what a producer knows what they should look like, then the assessment should help them know what aspects of the operation needs the most focus.

Disease free animals are something to strive for but rarely a reality. However, management, good nutrition and genetics will help to achieve this goal.
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