

SMALL RUMINANT TALK

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Central Region

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Body Condition Score of Goats and Effects on Gestation

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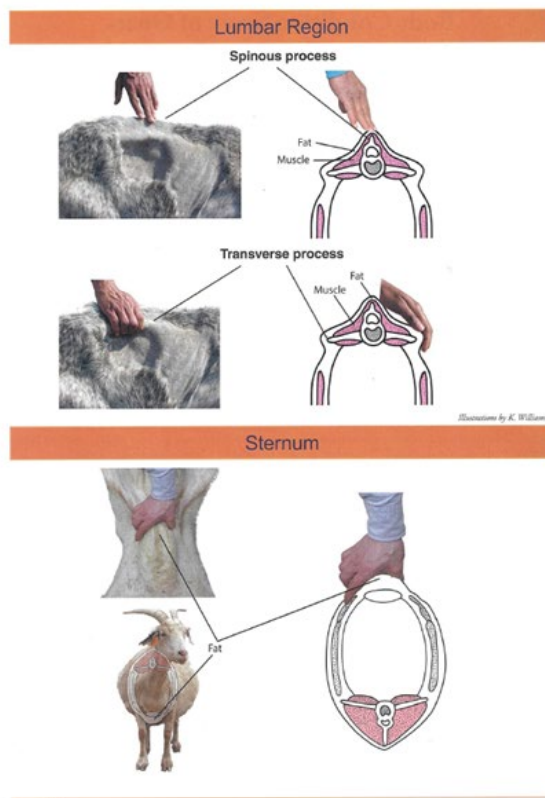
Failure to recognize animals in the herd that are either too thin or too fat and to make corrective decisions can affect fertility in the herd, milk production of the doe and can even result in mortality. When the body condition of an animal or herd starts to decrease, it is a sign or indicator that something may be wrong. Over conditioned animals can see decreased conception rates and milk production as well. The producer's nutrition program, internal parasites and diseases can affect the body condition of an animal.

Body Condition Score (BCS) has been shown to be an important practical tool in assessing the body condition of goats and is the best indicator of available fat reserves of the animal. Scoring is performed in goats using a BCS ranging from 1.0 – 5.0. A BCS of 1.0 is an extremely thin goat with no fat reserves, and a BCS of 5.0 is a very over conditioned or obese goat. Healthy goats should have a BCS of 2.5-4.0. It is recommended that Does have a BCS of 3 and Bucks have a BCS of 4 prior to breeding season to optimize conception rates.

To determine the BCS of a goat there are 3 areas of the goat we need to feel.

First is the Lumbar area, which is the area behind the ribs containing the loin. We need to determine the amount of muscle and fat around the vertebrae. Rub your hand over the vertebrae to grasp the spinous processes with your fingers to determine the amount of muscle and fat. The second area to feel is the fat on the sternum (breast bone). The wider and thicker the sternum is the more muscle and fat that the animal has. The third area is the fat cover over the intercostal spaces between the ribs. BCS cannot be determined by visual observation, you must feel the animal to correctly determine the BCS.

Learning to assess body condition can improve conception rates, milk production and reduce operating cost to help maximize profits.



The Top 10 Things You Need to Know about Goat Pneumonia

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Respiratory disease is a common problem with goats. As a practicing veterinarian, I see many of these animals after treatment has already been attempted and sometimes I see them when it's already too late. I recently surveyed a large group of veterinarians with a special interest in goats and asked them what they most wanted goat producers to understand about pneumonia in goats. Here are their answers.

1. Environment matters.

Dust, the weather, overcrowding, travel, new animal introductions, stress, parasites and nutrition all play a role in an animal's susceptibility to respiratory disease. Protein and trace mineral nutrition are the foundation of disease control. Animals should have access to high quality feeds according to their level of production and all animals need access to a loose trace mineral at all times. It's amazing at how animals can come through a disease challenge if their nutrition is on point. You have no control over the weather and travel and the purchase of new animals may just be a fact of life for your enterprise, but you do have the ability to limit the risk of pneumonia that these things bring. Shelter, quarantine of new animals and a sustainable parasite control plan can all be protective against pneumonia.

2. It's all about timing.

Veterinarians get lots of requests for "better" antibiotics. In fact, the success of treatment is tied much more closely to the timing of treatment than the drug used. Bacteria can double in number every 15-30 minutes and all the while, they are doing damage to the lungs. When you consider this in light of the fact that our prey-type species are programmed to pretend they are not sick until they just can't fake it anymore, you can see how quickly things can get out of hand. So, spend time observing your animals daily and understand their normal rhythms. Then, when they are first "off," you'll more easily recognize it and, most importantly, take appropriate action.

3. Get in the habit of taking temperatures on all sick animals.

The normal range for rectal temperature in goats is 101.5-103.5°. Keep a digital thermometer in your house or barn labelled for animals - don't want to get it confused with the human one! When you observe an animal that is just not acting right, taking their temperature is a good place to start. Now, a lot of things besides pneumonia can cause a fever, so that's not the final word, but if they have a fever, you know your instincts were correct that something wasn't right and this is important information to give your veterinarian when you call.

4. Please don't give a bunch of drugs and then call.

Often owners will give two or three different drugs over the course of a day or two and then call for help. This causes several problems. First, the way antibiotics work, some antibiotics can actually interfere with the other's ability to kill the bacteria. So, when you call your veterinarian, because of the drugs that have already been given, their treatment options may be extremely limited. Further, antibiotics need time to work. Not giving a drug time to work before giving another is not much different than giving two at the same time.

5. Antibiotic use is not straightforward.

We just talked about how giving two drugs at the same time can cause them to be ineffective, but there are other issues with antibiotic use that need to be considered. Antibiotics have effects everywhere in the body, not just on the lung tissue. This matters because when animals are already not eating well from being sick, overuse of antibiotics can kill the healthy bacteria in their rumen, making the situation worse.

There is only one drug that is labelled for respiratory disease in goats and that is Naxcel®. All other antibiotics used are off-label and therefore must be given under the direction of a veterinarian. When these drugs are used off-label, the withdrawal time listed on the bottle no longer applies: it will be longer. When you use these medications without the guidance of a veterinarian to provide these extended withdrawals, drug residues occur and are identified in edible products. And, it's not just antibiotics. Other misused drugs show up too. Recently, a list of the most common violative residues in goats was published and included a dewormer (moxidectin or Cydectin®), an anti-inflammatory (flunixin or Banamine® and its generics) and antibiotics ciprofloxacin, enrofloxacin (both from Baytril® use), oxytetracycline (Liquamycin® LA-200 and its generics) and penicillin. It's important to note that all use of Baytril® in goats is illegal. When drugs are misused, not only are there legal ramifications, but they become less effective over time.

6. Lungworms are extremely rare.

Although lungworms do exist, they are very rare, especially in the southern U.S. For this reason, don't assume that an animal who doesn't respond to antibiotics for apparent pneumonia has lungworms and needs to be dewormed. Especially in the south, the risk of Hemonchus resistance to dewormers is much, much higher than the risk of lungworms and so the use of dewormers in this way will accelerate the rate of failure of deworming drugs.

7. There is little to no evidence to support using cattle vaccines in goats.

There can be a temptation to use the cattle respiratory disease vaccines in goats to prevent pneumonia. Although goats get some of the same bacteria and viruses as cattle do, they are different strains and currently there is no evidence that cattle vaccines are protective against pneumonia in goats.

8. Breathing fast does not equal pneumonia.

Just as I said above in #3 that a fever doesn't equal pneumonia, neither does breathing fast or hard. Here are a couple of examples: a 5-month-old Angora wether with a temperature of 104.6o and a respiratory rate of 78 breaths per minute and a 6-month-old Boer wether with a temperature of 105o and a respiratory rate of 100 breaths per minute. Both are not eating and both have a lack of rumen (stomach) motility. All of these are signs of pneumonia and based on these parameters, both had been treated for pneumonia before coming to see me. After my examination, I determined that the Angora had copper toxicity and the Boer had grain overload. The delay in proper diagnosis causes animals to needlessly suffer and sometimes die. It is very important that ill animals receive a complete evaluation by a veterinarian in order to get a timely and accurate diagnosis.

9. Coughing is unreliable.

Coughing animals don't necessarily have pneumonia and animals with pneumonia don't necessarily cough. When someone calls me with a goat that is coughing and they want antibiotics for him, I always ask if he is sick and if he has a

fever. Most animals who are simply coughing but are acting otherwise healthy do not need to be treated with antibiotics. They should be monitored closely. On the other side of things, not all animals who have pneumonia cough.

10. Please be careful with internet advice.

One of the ways that I stay aware of what is going on in the livestock industries I serve is to peek in on internet discussions. Folks in these groups genuinely mean well and interact in order to share and receive support and advice. When I review answers to questions in these groups, I notice a couple of things. The first is that the advice is incomplete, often because there are nuances to a recommended treatment that might make it inappropriate in certain situations. Often the responses are knee-jerk or oversimplified and leave out important details. The second problem is that it becomes clear that the advisor didn't read the entirety of the poster's question. They often respond to the first keyword they see without fully considering the whole situation. I strongly encourage you to establish a daylight relationship with a veterinarian in your area. When a goat producer calls me for advice and all I've ever done for them is a 2 a.m. emergency C-section, we don't have a relationship and shared knowledge that allows for me to dispense advice or drugs. If, however, I have seen a number of animals for this producer and been to his or her facility and seen firsthand how they operate, I am in a much better position to help them over the phone when needed.

4-H Exhibitors: How to Prepare for Premier Exhibitor Contests

Hannah Devall, Associate Extension Agent, St. Martin Parish 4-H, LSU AgCenter

4-H Livestock projects are in full swing this time of year. Exhibitors are working through their feeding and exercise routines in preparation for the show ring. I like to remind students to spend some time preparing for Premier Exhibitor contests and not wait until the last minute. If you are unfamiliar with Premier Exhibitor, it's an optional and additional contest for livestock exhibitors. Some parishes and districts host contests but this article will focus on preparing students for the sheep and goat premier exhibitor contests held at the LSU AgCenter Livestock Show in February.

This contest is open to exhibitors in 9-12 grades and requires pre-entry prior to January 18th. The registration form is a resume that the student fills out that summarizes their livestock work over the past year. Very often, exhibitors do not spend as much time on their resume as they should but be reminded that these forms are part of your overall score. Focus on your leadership and citizenship work and accomplishments within your project area.

In addition to earning a score on your resume, other sections of the contest include a written test, a skillathon, an interview, and showmanship. A skillathon is where stations are setup and exhibitors work their way through the stations. Some examples of skillathon stations include feed identification, medicine label application, livestock judging, aging, or mouthing, or anatomy identification. These are just examples, so be sure to look for other topics in your project books. Showmanship scores will be taken by class for sheep. Goat exhibitors will specify on their written test which showmanship they will be participating in for their premier exhibitor score.

Interviews are also conducted during this process. During the interviews, judges are looking for exhibitors who can constructively promote animal agriculture and are knowledgeable about their project. Professionalism and communication skills are some areas of preparation to keep in mind.

SHEEP SHOWMANSHIP 	
APPEARANCE	Appearance- well groomed; clothes neat and clean Merits- brings sheep promptly into ring; works quickly but not abruptly; keeps attention on sheep and judge; quickly corrects faults of sheep; shows animal and not self; gives prompts answers to questions; displays courteous sportsmanlike attitude
SHEEP'S APPEARANCE	Cleanliness- wool clean and free from foreign mater; head, flanks, and legs clean; clean ears, nose, and feet
SHOWING LAMB	Posing & Changing Positions- sheep properly setup at all times; responds to handling and under control; shown from front when judge views from rear or left side otherwise shown from left side only; shown from a standing or bent knee position; led into the showing on the left side with the left hand under the jaw and the right hand behind the head; braced by extending fingers and applying slight pressure to muscles on side of neck or jaw
COOPERATION WITH JUDGE	Keeps body from obstructing view of own sheep and others'; shows awareness of judge's position and hand signals; moves sheep upon direction of judge

When preparing for the sheep premier exhibitor contest, the resources to reference are as follows: all current 4-H sheep project books (available from your local 4-H office or www.shop4-H.org), current year LSU AgCenter Livestock Show Catalog, Sheep Premier Exhibitor Study Guide (Livestock Show Office Website or email hdevall@agcenter.lsu.edu for a copy), and the Sheep Premier Exhibitor Feed and Nutrition document (Livestock Show Office website). If you have any questions regarding the state sheep premier exhibitor contest, please contact Mrs. Hannah Devall in St. Martin Parish (hdevall@agcenter.lsu.edu).

If preparing for the goat premier exhibitor contest, the resources to reference are as follows: all current 4-H goat project books (available from your local 4-H office or www.shop4-H.org), current year LSU AgCenter Livestock Show Catalog, www.goatworld.com, equipment find on www.premier1supplies.com, and breeds find at www.111.ansi.okstate.edu/breeds/goats. If you have any questions regarding the state goat premier exhibitor contest, please contact Mrs. Brittany Zaunbrecher in Cameron Parish (bzaunbrecher@agcenter.lsu.edu).

Premier Exhibitor is another way for 4-H members to showcase the dedication and knowledge gained through their 4-H projects. If you are looking for more information on the livestock premier exhibitor program, check on our website https://www.lsuagcenter.com/portals/our_offices/departments/livestock-show-office/premierexhibitor.

Preparing Meat Goats for the Breeding Season: What Other Measures Will Increase Reproductive Performance?

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Several other important measures will affect breeding indirectly, such as trimming feet, the grouping of animals, deworming, using the "buck effect" to synchronize does, and vaccination.

1. Trimming feet

Feet and legs should be examined closely for sores, overgrown hooves and sources of strange smells that could be associated with infections or foot rot. Start trimming the feet of animals several weeks before the breeding season to make sure that they will be in top shape during that period of increased activity. The buck in particular will cover a lot of territory. A lame buck will cover does only sporadically, or might give up altogether. Similarly, limping does may not let bucks breed them.

2. Grouping of animals

Goats are very social animals and should be grouped together several weeks before the breeding season so that the pecking order of the animals may be established. Forming groups just prior to the breeding season will disrupt the pecking order of the animals. The fighting that will ensue to establish a new pecking order within the newly-formed groups will be a source of stress and will influence reproductive performance.

Young does should have reached approximately 70 to 75% of their estimated mature body weight to be bred successfully without adversely affecting their mature size.

3. Deworming

Deworming breeding does and buck(s) before the start of the breeding season is an important management tool. If flushing is planned, it is advisable to deworm prior to flushing. Wormy does will not increase their body condition during the flushing period and therefore flushing may not increase ovulation rate. In addition, wormy does will not breed well, or may not breed at all, or may conceive and abort later.

4. The "buck effect"

Segregating does from bucks is crucial in the development of sound breeding programs that should be paralleled with feed resources and market demands. The best approach to separate does from bucks is to develop a secure buck pasture. The buck pasture should be far enough from the breeding doe herd, otherwise bucks will attempt to go through fences to breed does in estrus.

In goats, estrus can be induced with the strategic exposure of anestrus does to intact males. This response is dependent on the depth of seasonal anestrus and associated with a first ovulation in two to three days after the introduction of the buck. The first ovulation is usually silent and of low fertility. The second ovulation five days later is accompanied by a fertile estrus. The response to the male effect is influenced by the sexual aggressiveness of the buck, the intensity of the stimulation and the body condition of the does. Immediate contact results in a greater response than fence-line contact or intermittent contact. The pheromones responsible to induce estrus are present in buck hair, but not in urine, and are not associated with buck odor during the breeding season.

5. Vaccination

Although some producers have had no problems so far without implementing a vaccination program, it is recommended that goats be vaccinated against overeating disease (enterotoxemia) and tetanus. For twice a year vaccination, breeding does should be vaccinated before the start of the breeding season and 4 to 6 weeks before kidding. If vaccinated once a year, it is preferable to vaccinate breeding does prior to kidding because some immunity will be passed on to the newborns.

The choice of vaccines is the following:

A. Clostridium Perfringens Types C and D+Tetanus Toxoid in one vaccine, against overeating disease and tetanus. This vaccine is labeled for goats.

B. Multivalent clostridial vaccine (8-way vaccine). One example of a multiway clostridial vaccine, labeled for sheep, is Covexin8. Covexin8 is more reactive and may cause a higher incidence of adverse reaction at the injection site. Covexin8 may be used in herds which have had problems with blackleg and malignant edema (gas gangrene). Although blackleg and malignant edema are common and costly infections in sheep and cattle, they are uncommon in goats.

For more information please contact

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