

Common Diseases in Goats

Kipp Brown
Extension Livestock Coordinator
Department of Animal and Dairy Sciences
Mississippi State University

Ketosis

Ketosis (also known as pregnancy toxemia) may occur in pregnant does late in their pregnancy. The doe may be depressed, weak, uninterested in food, and have poor muscle control and balance. If untreated, death follows within a few days. Early in the disease, many does will show a positive test for ketone bodies in the urine. Ketosis may occur when the doe is carrying two or more kids, or when the doe is very fat. This disease is caused by the sudden extra demand for energy by the fast-growing kids in the pregnant goat and the inability of the goat to eat enough of her normal diet to provide this energy (due to the kids taking up room in the body). The doe will rapidly metabolize fat from her body stores producing ketones (a toxic by-product) and the symptoms of the disease. Treatment with propylene glycol at two to three ounces twice a day will help. If the doe lies down and cannot stand, treatment is usually not successful unless she delivers at that time. As a preventive measure, do not let the doe get fat early in pregnancy and in the last month of pregnancy provide 1-2 pounds of grain in addition to hay.

Caprine Arthritis Encephalitis Syndrome (CAE)

CAE is a viral disease. In young kids symptoms include a weakness in the rear legs, with no fever, or loss of appetite. However, the unused legs lose muscle strength and structure and the infected kids eventually die. In older goats, the same disease is seen as swollen joints, particularly the knees. The disease develops slowly, and after 2 or more years, the animal has difficulty using its legs properly. Infected goats have no fever, remain alert, and eat well. However, they do not recover from the arthritis. An inexpensive blood test can be used to diagnose CAE. The disease is spread from older infected goats to kids, perhaps by contact or through the milk from an infected doe to her kid. There are no corrective procedures or treatments. Isolating kids at birth and raising them on pasteurized goat milk is done to prevent the spread. It's a good idea to make sure a goat is CAE free before purchasing. However, the blood test only checks for antibodies, and it's possible that an animal is infected and not (yet) producing antibodies.

Mastitis

Mastitis is an inflammation of the mammary gland (udder or milk-giving gland) of animals, usually caused by bacteria. The symptoms of mastitis are heat, pain, and swelling of the udder. Usually you will notice some discoloration of the tissue and abnormal milk. The infected udder will change in color from slightly more pink to a bright red, or to a black and cold udder. The infected udder will feel hot to the touch with fever. The milk from an infected udder will vary in color, texture, and thickness. The California Mastitis Test (CMT) is a good test for subclinical mastitis, but is not 100% accurate. Laboratory culture or growth of the bacteria causing the mastitis is the best way to determine the exact diagnosis. The causes of mastitis are most commonly rough treatment and unclean milking practices. Wash the goat's udder before milking, and dip (or spray) the teats after milking with a teat dip. Wash your hands before milking each

goat to prevent the spread. The treatment consists of an intermammary infusion of antibiotics, sometimes accompanied by additional antibiotics. Consulting a vet is important for this disease since there are many different bacteria that cause mastitis and different antibiotics are best for each. If untreated the infection spreads and the goat may die or lose the udder.

Acidosis

A drastic change in feed and possibly too much corn in the goat's diet most commonly causes acidosis. When goats eat high concentrate rations, not only do the starches produce more acid, but the lack of roughage causes a decreased amount of saliva. Symptoms of acidosis include: Bloat, rapid breathing and/or lethargic behavior (staring out into "space"). If your goat is diagnosed with Acidosis, you should treat immediately. Acidosis is potentially fatal, and if it does not kill your goat, it can burn the rumen and kill good bacteria leading to other diseases. Allow the animal to drink lots of water, use antacid preparations like milk of magnesia, oral tetracycline to prevent bacterial overgrowth, probiocin and thiamine or B-complex vitamins.

Enterotoxemia (Over-eating disease)

Enterotoxemia, also known as "over-eating disease", is caused by the bacterium *Clostridium perfringens*. This bacterium is a normal inhabitant of the intestinal tract of goats and normally, is not a problem. However, there are certain conditions including stress, which trigger excessive bacterial growth in which lethal amounts of toxin are produced, resulting in death of the animal. Enterotoxemia can have no symptoms or symptoms such as diarrhea that are commonly confused with other diseases, so prevention is a MUST. Vaccinate kids once a month from the time they are 1 month old until they are 5-6 months old. Be sure to use a C&D vaccine, commonly sold as a CD/T vaccine. Treatment for the disease can be unrewarding, if your goat has already been diagnosed. Recoveries are rare, but affected goats can be treated with *Clostridium* antitoxin, penicillin and flunixin. Prevention is the best treatment.

Lice

Goats have both biting and sucking lice. Many sprays are effective but resistance can occur to any of them. It is best twice 10-14 days apart to remove young lice before they mature. Cyence is effective and also works well for flies. The avermectins and moxidectins also help kill lice. Mange can be treated the same way but also treat topically with Prolate (hog spray) or a Permethrin product. Treat every 5 days till the hair starts to grow back (mange) or you see no sign of lice. Slick shearing a goat will also help kill the lice population. Be sure to treat or remove bedding in sheds and pens.

Pinkeye

This disease is usually caused by *Chlamydia* or *Mycoplasma* in goats, and is not related to *Moraxella bovis*, which causes pinkeye in cattle. It is contagious, but species specific. Pinkeye can be brought on by stress. Early signs of Pinkeye include runny, red, and swollen eyes. The dark part of the eye (cornea) becomes hazy and then turns opaque (clouds over). The goat begins to lose its sight. If left untreated, blindness can occur. Most goats recover without any treatment however, so be certain the treatment you choose does not cause any harm. If the eye looks like it is going to rupture, a conjunctival or third eyelid flap should be used to protect the eyeball. If your goat has been diagnosed with pinkeye, there are a few means of treatment. If the eye has not ulcerated, apply tetracycline (Terramycin) ophthalmic ointment three or four times a day

(minimum twice a day), using disposable gloves to prevent spread of the infection. Powders and aerosols are not recommended because they can be more irritating especially if the eye is ulcerated. In severe cases of Pinkeye, injectable oxytetracycline (LA200 or equivalent) may be used in addition to topical eye ointments. If the goat is pregnant, however, remember that oxytetracycline is known to interfere with bone and teeth formation in the unborn kid.

Soremouth

Soremouth is spread by a parapoxvirus that is highly contagious. It is more commonly found in sheep than goats, however goats are still susceptible. It affects primarily the lips and noses of young animals. If they are nursing off dams which have not previously had the disease or been vaccinated, the dams will also display identical sores on the teats and udder where it may cause mastitis. The sores start as small red spots which form blisters that burst to form ulcers. These are followed by characteristic grayish-brown cauliflowerlike scabs. There will be spontaneous healing and the scabs will fall off in about three weeks. The skin at the corona of the hooves can also be affected. To prevent the disease, there is a soremouth vaccine that is available, but because it is a live virus vaccine, many farmers have mixed feelings whether the vaccine helps or hurts. We suggest you speak with your vet to see if the vaccine would be beneficial to your goat or flock. If your goat has been diagnosed with soremouth, immediately isolate him or her from the rest of the herd. You can apply antibiotal cream to the infected area to prevent secondary diseases. (Antibiotics WILL NOT kill a virus, they only work on bacteria.)

Coccidiosis

Coccidia are tiny intestinal parasites, actually protozoans, which can cause foamy, bloody diarrhea or a dull, dry coat. Sometimes a goat with coccidiosis (coccidia infestation) has an onagain-off-again soft stool or no obvious symptoms at all. You might not suspect a problem until you notice that your kids are not growing as well as they should. Coccidiosis is characterized by a foul smelling diarrhea and along with diarrhea comes dehydration and fever. The organism, which causes Coccidiosis, is an intestinal parasite named Coccidiosis and the oocysts are present to some degree in all goats at all times. Babies are particularly susceptible to the disease because their immune systems are not developed. It is passed through fecal-to-oral contact, usually as babies first begin to eat solid foods. If your goat has been diagnosed with Coccidiosis, Banamine (prescription required) can be administered intramuscularly (IM) at a rate of 1 cc per 100 pounds of body weight to ease pain. Banamine should not be used but once every 36-72 hours, because it causes stomach ulcers if used too frequently. Treatment is usually by a sulfur type drug. Your veterinarian can recommend a product such as Albon for treatment and a product such as Corid for treatment and prevention. A severely dehydrated goat should receive Re-Sorb electrolytes, both in an oral drench and in the water bucket. Young kids up to four months of age are at highest risk. Goats with signs of Coccidiosis should be treated at least once, preferably twice per day with the medication Albon or Corid over 3-5 days. Corid or a like product should be used in the drinking water as well. It is recommend that kids receive Corid added to the water source for prevention beginning at about three or four weeks of age and treatment if they are very stressed, such as when separated from their mother. If in doubt, take a stool sample to a veterinarian who regularly treats goats.

Urinary Calculi

Male goat (buck) kids that are not being kept as future herd sires are usually castrated so that

they will no longer be fertile. It is less traumatic to castrate the kid when he is very young but this will make him more susceptible to urinary calculi because his urethra (the tube that carries his urine from his bladder to the opening in his penis) will not develop to its full size and is easier to clog up. It is best to wait until buck kids are 8-10 weeks of age before castration. Urinary calculi occur when the urethra gets blocked up with mineral deposits and urine cannot pass through it. If the deposits or "stones" are not somehow passed or dissolved, the kid's bladder will burst and he will die. Ideally, you should wait until your kid is 10 weeks old to castrate him but this is not always possible. Other preventions for urinary calculi that you should practice include:

- 1) Feeding a ration with a 2:1 calcium to phosphorus ratio,
- 2) Adding ammonium chloride to his feed at a rate of about 15 lbs. per ton of feed or else giving him about ½ ounce (about a tablespoon) to 1 ounce (2 tbsp.) per day depending on his size **unless his feed already contains it,**
- 3) Making sure he gets plenty of exercise and drinks lots of fresh, clean, water (keep his water in the shade if hot and unfrozen if cold, always have salt available to him), and
- 4) Checking daily to make sure he is urinating easily without straining and has no blood in his urine.