

Causes of Abortions in Goats

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Abortions are most commonly seen during the final 2 months of pregnancy. Does are normally very fertile animals but may have a higher incidence of abortion compared to other farm animals. Abortion rates of 5% are common and rates below that are considered good. Many infectious agents, events causing stress, drugs, nutritional deficiencies and toxic plants may be the cause of a Doe aborting. Infectious causes may be the common reason for a Doe aborting and should be considered the most likely cause if a herd has an abortion outbreak. In an infectious abortion, it is most often a placental disease.

Chlamydia -

Chlamydial abortion is one of the most common causes of infectious abortion in goats. Pigeons and sparrows may be the carrier of the organism that causes Chlamydia and ticks or insects may play a role in the transmission. Non-pregnant Does may become infected but the organism can stay dormant creating little or no immune response. The organism may stay dormant until the Doe becomes pregnant resulting in both an abortion and the immune response. Inflammations of the placenta caused by the infection prevent the normal transfer of nutrients across the placenta and that results in the fetal death and it's abortion. After a Doe aborts, she will normally develop a good immune response that eliminates the Chlamydia from her uterus normally within 3 months of the abortion. The infectious organism does not proliferate and attack the placenta until around 90 days after breeding. Chlamydia has been found in a buck's semen 29 days after being experimentally infected however the primary modes of transmission are from vaginal or uterine secretions of aborting Does and Does shedding the organism the following year. During future breeding seasons, the Does normally show no signs of infertility and the natural immunity following an abortion lasts around 3 years.

In newly infected herds, 25% to 60% of the Does may abort. In herds that have been exposed to the infection, abortion rates drop to between 1% to 15% and the new abortions generally are in new animals to the herd. The abortions generally occur in the last month of the pregnancy but

may happen as early as day 100 of pregnancy. Does may show loss of appetite, run fever and show a bloody vaginal discharge 2-3 days before aborting.

- **Treatment** - If chlamydial is confirmed or highly likely to be present, it is common to treat all Does remaining at risk of aborting. Treat with long-acting oxytetracycline (20 mg/kg IM or SC). Bio Mycin 200 is one antibiotic that can be used. Some have given the drug twice a week during the final 4-6 weeks of pregnancy. However because of the management difficulties, the most effective process seems to be one injection every three days for three times before kidding followed by an injection 3 weeks after kidding. Aborting females should be removed from the herd for at least 3 weeks, and fetuses and placentas should be burned or buried.

Toxoplasmosis

One of the most common parasitic infections in goats. This is associated with a coccidium of cats. Cats become infected by consuming uncooked meat scraps, placentas, and small rodents. Goats become infected by eating grass, hay or grain contaminated by cat feces. It can result in abortion, stillbirths and weak kids. However, reducing exposure to cat may help but it may lead to an increase in rats that carry other diseases. Animals remain infected for life and may abort in future pregnancies so you may want to cull infected Does. Feeding decoquinate or monensin throughout pregnancy may reduce the incidence of abortion. These are often used in goat medicated feed.

Q Fever

a bacterial disease capable of being transmitted from animals to people caused by *Coxiella burnetii*, a rickettsial organism. *C. burnetii* may be found in sheep, cattle, goats, cats, dogs, some wild animals (including many wild rodents), birds, and ticks. Animals shed the organism in their urine, feces, milk, and especially in their birth products. Abortion or stillbirths occur in late pregnancy, but only when the placenta has been severely damaged.

- **Treatment** - Treat with long-acting oxytetracycline (20 mg/kg IM or SC). Bio Mycin 200 is one antibiotic that can be used. One injection every three days for three times before kidding

followed by an injection 3 weeks after kidding. Placentas and aborted fetuses should be destroyed by burning. After a Doe is infected, she can carry the organism indefinitely, shedding it in milk and at kidding.

Listeriosis

caused by *listeria monocytogenes* an ubiquitous organism that may be found in soil, water, plant litter and digestive tract of ruminants. Abortions occur in the last 2 months. Abortions have been attributed to the feeding of contaminated silage. Grazing on boggy, high-pH soils can also cause the infection.

- **Treatment** - Bio Mycin 200 is one antibiotic that can be used. One injection every three days for three times before kidding followed by an injection 3 weeks after kidding. The addition of chlortetracycline to the feed has been reported to stop abortions during a listeriosis outbreak.



Chlamydiosis is a major cause of abortion in goats. It is caused by *Chlamydia psittaci*, a gram negative intracellular organism. The organism is also the cause of arthritis, conjunctivitis and respiratory diseases. After exposure the organism multiplies in the intestine, eye or genital tract. It gains access to the placenta and fetus and causes abnormal absorption of nutrients through the placenta, leading to death and abortion of the fetus. Other animals become exposed by ingesting diseased placenta or uterine discharges.

Symptoms: Symptoms include abortion during the last two months of pregnancy, especially in the last two weeks. Fetuses usually appear fresh. The doe is usually not clinically ill, and the placenta is not retained. Fertility is usually normal in subsequent pregnancies though it is thought

that immunity decreases after three years. The organism can be transmitted to other does in the herd.

Treatment: Medical care includes treating all susceptible does with tetracycline or tylosin, or other effective antibiotics. Consult your veterinarian for an appropriate course of treatment.

Prevention: Control measures include practicing good sanitation and establishing an effective vaccination program. Buy replacement does and kids from reputable sources with no history of the condition. **Chlamydia is contagious to humans.**

References cited: Mary C. Smith & David M. Sherman: Goat Medicine

<http://www.extension.org/pages/23825/chlamydiosis>

Toxoplasmosis

The main problem in goats affected by this organism is abortions. The organism is a protozoan called *Toxoplasma gondii*. Toxoplasma is a one-celled parasite. It is more of a problem in sheep and is a major cause of abortion, mummification, stillbirth, and weak kids. Cats are the carrier of the organism. They become infected by eating uncooked meat scraps, placentas, and small rodents. Recently infected cats then shed the eggs in their feces. Goats become infected by eating grass, hay, or grain contaminated by cat feces. It reaches the reproductive tract by the blood after invasion of the small intestine. If the goat is pregnant at the time of initial infection, Toxoplasma commonly invades the placenta and fetus approximately two weeks after initial infection of the doe. Fetuses infected in the first half of pregnancy are more apt to die than fetuses infected in the second half. Previously infected goats are usually resistant to abortion when challenged again by the organism. Symptoms are aborted fetuses, typically in the first half of pregnancy. The definitive diagnosis is made using laboratory analysis based on serology or histology. **There is no effective treatment recognized for toxoplasmosis at this time.** Control is based on sound sanitation and best management practices. Steps should be taken to prevent exposure of susceptible goats to the eggs in cat feces during pregnancy. Store grain and feed in covered containers. Keep a closed herd of cats on the premises. Spay and neuter cat populations. Do not feed raw meat to cats. Dispose of aborted fetuses and placentas in acceptable manners. Wear protective gloves when handling infected material and pasteurize milk and properly cook meat fed to cats. This organism is contagious to humans, and pregnant women should be careful when handling cat feces and contaminated aborted material. **Vaccination is available.**

References cited:*Goat Medicine; Mary C. Smith and David Sherman*

<http://www.extension.org/pages/31070/goat-toxoplasmosis>