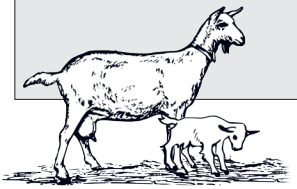
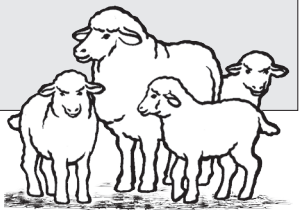
Abortions and causes of death in newborn sheep and goats

– Debrah Mohale –





What is abortion?

- Abortion is the result of a disturbance in the functioning of the afterbirth (placenta).
- This causes the premature loss of the foetus which may be dead or alive, infected or uninfected.
- Abortion may occur at any stage of pregnancy.

Causes of abortion and death

Many conditions can cause abortion in sheep and goats. The most frequent are:

Infectious

- Enzootic abortion
- Brucellosis
- Rift Valley fever
- Wesselsbron disease

Non-infectious

- Stress and habitual abortion.

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Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

ENZOOTIC ABORTION

- Enzootic abortion (*chlamydiosis*) is a contagious disease in sheep and goats. It is caused by organisms called *Chlamydia psittaci* or other strains.
- It occurs countrywide in South Africa, and may be found in the intestines of healthy sheep.

  This organism can also cause disease conditions in several other animal species, and can even cause abortions in pregnant women who handle sick sheep or lambs.

How sheep and goats become infected

- The disease usually spreads among sheep during lambing.
- Sheep pick up the organism by mouth when they graze in the area contaminated by infected afterbirth or infected uterine fluid of lambing ewes.
- Outbreaks usually occur within a year or two of bringing the infected sheep onto the farm.
- The lambs can be infected during birth.
- Chamydial infection can remain dormant in the ewe lamb until she, in turn aborts during the first pregnancy.
- The more intensive the sheep-farming enterprise, the more likely it is that the disease will spread through the flock.

What are the signs of enzootic abortion?

- The ewe shows no signs of illness.
- Flocks infected for the first time may have an incidence of up to 70% of abortions.
- Abortions can occur as early as 3 months, but the foetus is then usually resorbed.
- Ewes may abort in the last month of pregnancy.
- They may give birth to small, weak lambs that die shortly after birth.
- Spots of blood above the udder and on the hocks of the ewe are visible and may be the only sign of abortion.
- Poor lambing percentage is recorded.
- It is unusual for the same female animal to abort twice.

Treatment

- The organism can be treated with prolonged, high doses of certain antibiotics, but this is usually neither practical nor economically feasible.
- Speak to your animal health technician or state veterinarian for help.

Prevention

- Because of lamb deaths and the poor growth of lambs that do not die, it is essential to vaccinate. Oil-based, inactivated vaccine is produced by Onderstepoort Biological Products (OBP) to prevent abortions caused by chlamydial infection.
- Pregnant ewes can safely be inoculated, if necessary.
- It is essential to vaccinate before the breeding season, because the vaccine will not give protection against abortion once the foetus has been infected.
- The ideal time is 4 to 6 weeks before the breeding season.

BRUCELLOSIS

- This disease is caused by Brucella melitensis.
- It occurs more frequently in South Africa.
- A high percentage of the infected ewes will abort.
- Humans are susceptible to this organism and develop Malta fever if infection takes place.
- This disease of humans is characterised by an undulating fever, articular pains (joints), headache and sweating.

How do sheep and goats become infected?

- The infected ewe remains a carrier of the disease and contaminates the grazing.
- An infected ewe usually introduces the disease in the flock.
- Lambs may be born alive, but die afterwards.
- The lambs, foetal fluids and afterbirth of the infected ewes contaminate the grazing which spreads the disease.
- The milk of the infected ewe also contains the organisms and such ewe frequently shows signs of mastitis.

What are the sign of brucellosis in sheep and goats?

- The ewe shows no sign of illness.
- Weakness and poor condition may be seen.
- After the abortion the ewe will discharge a thick, dark red fluid from the vulva.
- The udder is often infected and mastitis can severely reduce milk production.
- Poor lambing percentage is recorded.

Control measures or treatment

- Treatment is not allowed in South Africa.
- The state veterinary services implement control measures to prevent further spread and clean the flock of infection.

Prevention

- Vaccination is an option in countries where there is a high incidence of the disease, but ultimately the aim should be to eradicate it by slaughtering.
- All aborted foetuses and membranes must be removed from the kidding area immediately, as well as the soil contaminated by contact with the membranes. Aborting ewes must be isolated from the rest of the flock and culled as soon as possible.
- Report abortions to your nearest state veterinarian or animal health technician who will assist you with the control of the disease.

RIFT VALLEY FEVER (RVF)

- The disease occurs in South Africa and spreads during the rainy cycle.
- It is caused by a virus transmitted by mosquitoes during summer when there is heavy rainfall and persistent flooding. RVF seems to spread along river courses.
- Infected animals can then transmit the disease to others by means of aborted foetuses or it can be spread by needles during vaccinations.
- The disease should be regarded as dangerous because humans are also susceptible.

How do humans become infected?

- Humans are susceptible to the RVF virus and contract the infection when handling sick animals or aborted foetuses.
- By cutting up dead animals or performing postmortem investigations.
- People who work closely with animals, such as farmers and abattoir staff, are at risk of becoming infected.
- The virus may be contracted by humans who are in close contact with infected animals.

What are the signs of RVF in sheep and goats?

- The RVF virus causes abortions in sheep and goats, leading to large-scale deaths in young lambs—up to 95% can die within days.
- The incubation phase of the disease is very short.
- Lambs show sign of illness within 1 to 3 days of being infected.
- Some die within 12 to 24 hours after being infected without showing any signs.
- Newborn lambs are prime targets because their wool or hair is very short and they are highly susceptible.
- A high percentage of ewes in the flock will abort, causing abortion storms.
- Adult sheep show sign of weakness and sometimes bloody diarrhoea.
- Bleeding from the nose is also seen.

Prevention

- There are two effective RVF vaccines produced by Onderstepoort Biological Products (OBP). One is a live vaccine for sheep and goats, which gives long-lasting protection after a single vaccination.
- This vaccine cannot be used in pregnant animals as it may cause abortions.
- The RVF live vaccine affects brain tissue. If a pregnant ewe is vaccinated before the foetus is 3 months old, the live vaccine will attack the undeveloped brain of the lamb and cause malformation.
- Lambs and kids of vaccinated sheep and goats should be vaccinated at 6 months or at weaning but not before, or natural immunity will be destroyed.
- The other vaccine is an inactivated vaccine developed for pregnant sheep and goats.
- The vaccine can safely be given to pregnant ewes but the immunity lasts for one year at most.

WESSELSBRON DISEASE

- This disease often occurs together with RVF.
- Wesselsbron disease was first identified in the Wesselsbron district in South Africa when abortions were occurring in sheep that had already been vaccinated against RVF.

How sheep and goats become infected

- Wesselsbron disease is a viral disease transmitted by mosquitoes.
- It is an acute disease in herbivores but affects mainly sheep and goats, causing abortions in pregnant animals and the death of young lambs.
- Humans may contract the disease when handling infected carcasses.

What are the signs of Wesselsbron abortion?

- The only sign is a mild temperature.
- The ewes abort because the foetus is dead.
- They produce dead lambs without being sick themselves.
- Up to 30% of lambs die, usually between 1 and 10 days of age.
- Wesselsbron disease is therefore considered to be mainly an abortion disease.

Prevention

At this stage there are no preventive vaccines available.

STRESS AND HABITUAL ABORTIONS

Stress abortion

- This happens to the metabolically sensitive pregnant goat.
- All breeds can be affected, but Angoras are more susceptible.
- The stress is usually directly and indirectly related to feed disturbance, which causes the blood sugar level to drop.

Habitual abortion

- Habitual abortions are rightly regarded as one of the most important threats to the Angora goat industry, because they occur on a large scale every year.
- On some farms between 10 and 50% of the goats may have aborted in the past. This is a more serious form of abortion.
- Habitual abortion results solely from the chronic overactivity of the adrenal cortex of the mother.
- Habitual abortion occurs in close association with stress abortions.

What are the signs of stress and habitual abortions?

- Abortions caused by feed stress are characterised by the expulsion of apparently normal, well-developed kids after the 90th day of pregnancy.
- The foetus shows no signs of abnormality.
- Abortions that occur as a result of the overactive adrenal cortex of the mother show sign of oedema in the foetus.
- The heart rate is slow and heart failure occurs.

Treatment and prevention

- Female goats that abort oedematous kids (habitual aborters) should be culled and selection for excessive quantities of fine hair should be avoided; it could lead to an increased susceptibility to abortions.
- Providing feed of the required quality to the pregnant goats can control stress abortions, especially those that are metabolically sensitive.

For further information contact your nearest animal health technician or state/ private veterinarian

or

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