

Respiratory diseases in goats and sheep



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**Respiratory diseases are diseases affecting the nose, windpipe and the lungs.
Production in animals is greatly reduced and death may result**

What are the causes?

There are many different causes of respiratory diseases. Sometimes two or more things are involved in the cause of the diseases. Also, different diseases can look the same in live and dead animals.

The diseases can be caused by:

- Microbes (germs) such as viruses, bacteria, fungi
- Poisonous plants
- Management mistakes such as incorrect dosing
- Worms
- Cancer.

Animals can also struggle to breathe, even if they do not have a respiratory disease but a different disease. For example, when there is increased pressure in the lungs, like when the animal is bloated or when fluid has collected in the lungs as in heartwater cases.

How do goats and sheep get respiratory diseases?

- Some of the germs are coughed out by sick animals and breathed in by other animals.
- Sometimes germs spread from other organs to the lungs.
- Through careless management practices.
- By eating poisonous plants.

When do we see these diseases?

- ⦿ When animals are stressed, for example, when there is a change of diet or during extreme weather conditions, especially cold and wind.
- ⦿ With poor management practices such as overcrowding.
- ⦿ With faulty management such as incorrect dosing.

What are the signs in live goats and sheep?

- ⦿ Nasal discharge (can be mucus, pus or blood).
- ⦿ Difficult breathing/breathing from belly/breathing through the mouth.
- ⦿ Weight loss.
- ⦿ Weakness.
- ⦿ Difficulty walking long distances/lagging behind when chased.
- ⦿ Death.

What are the signs in dead goats and sheep?

- ⦿ The lungs are firm and swollen and may be covered with a yellowish-white layer.
- ⦿ The lungs have red and grey patches.
- ⦿ When cutting the lungs, fluid or pus may come out.
- ⦿ White froth may be seen in the windpipe and nasal passage.

How can you know the cause of respiratory disease?

Your state or private veterinarian and animal health technician can examine the sick animal or perform a postmortem on the dead animal. They may send samples to the laboratory for testing.

Internal parasites

NASAL BOT

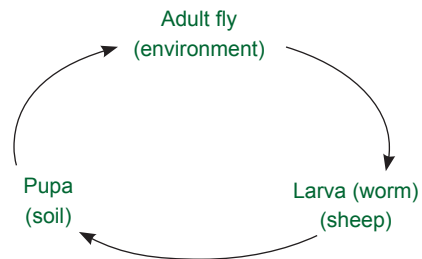
Nasal bot is common in areas where sheep and goats are kept. It is a problem to sheep and goats from February to April. The adult, a brownish fly, lays the larvae (maggots) around the nostrils of the sheep or goat. The larvae crawl to the nasal passage and then to the sinuses. When mature they are sneezed out.



Signs in live animals

Bots cause a lot of irritation. In an affected flock, animals will be seen:

- pressing their nostrils against objects or against other animals
- with pus discharges coming from the nostrils and sneezing
- losing weight gradually.



Life cycle of nasal bot

Signs in dead animals

- Nasal bots may be found in the nasal passage.

Treatment

- The best time to treat the flock in the highveld is from June to August when the larvae are in the nasal passage of the animal.
- Ivomec injectable can be used. Other deworming products are also available.

LUNG WORM

Lung worms occur in the windpipe and windpipe branches of sheep and goats worldwide. They are also seen in antelopes. The problem is common in cooler parts of the country, where it is very moist.

Signs in live animals

- Infected animals show shallow breathing with the head raised, coughing, mucous from the nose, loss of weight and death may occur.

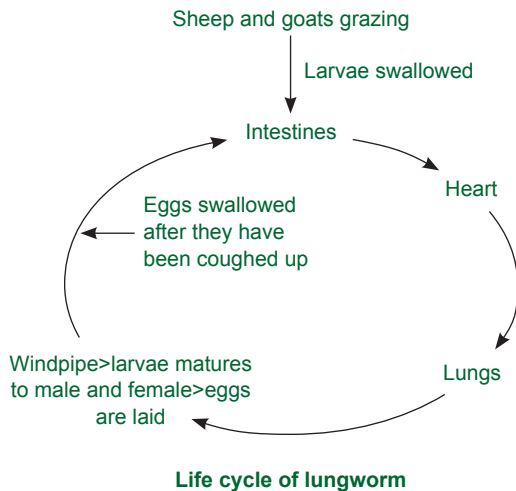
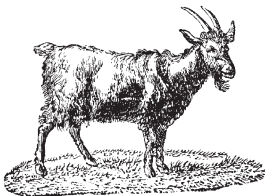
Signs in dead animals

- Adult worms are seen in the windpipe branches. There is froth in the lungs.

Most of the windpipe branches contain plugs of mucous and pus. Some parts of the lungs are sunken, some have crackling sounds when touching them and others show dark red or grey patches.

Treatment

- Deworming products like Ivermectin, Febantel and Albendazole may be used.



Poisonous plants

Ganskweek and Springbokbos are some of the poisonous plants affecting the lungs.

Signs in live animals

- Difficult breathing.

Signs in dead animals

- Fluid collects in the lungs and makes a crackling sound when touched.
- The liver may be yellow.

Prevention

- With the help of your state veterinarian, the plants can be identified and then removed.
- The poisonous portion of the farm can be fenced off.
- Supplying extra feed during dry months may help reduce the chances of these plants being eaten.

Infectious diseases

JAAGSIEKTE

This is a cancerous growth caused by a virus, which affects the lungs of sheep.

Jaagsiekte spreads when sick sheep are introduced to healthy sheep. There must be close contact to spread the disease from one animal to the other, for example, when sheep are in a kraal.

All ages are affected, but mainly adult sheep show signs of the disease.

Signs in live animals

- Breathing is more rapid than normal after the animal has been chased.
- Reduced appetite, loss of weight, sheep lag behind when driven.
- Fast and difficult breathing when they walk and later when they rest.

Signs in dead animals

- The lungs are big, heavier than normal with cancerous growths of different sizes throughout the lung.
- Signs of pneumonia (see Pasteurellosis) are often seen.

Treatment and prevention

- **There is NO treatment.** Once the clinical signs occur, nothing can be done.
- Prevention is by good management. For example, do not overcrowd your flock since the spread of the disease is through breathing droplets that contain the virus.

PROGRESSIVE PNEUMONIA (MAEDI-VISNA)

This is a chronic progressive viral disease of sheep and goats. It has been reported in Africa, including South Africa. It is usually seen in sheep and goats that are four (4) years or older. Animals die from complications by a germ called *pasteurella*.

Lungs of sheep with maedi-visna are big, heavy, pale with many small white spots, and dents where they were pressed against the ribs.

PASTEURELLOSIS (“BONT-LONG”)

This is caused by a bacterium (germ) called *pasteurella*. It is very common and causes economic losses in sheep and goats in South Africa.

The lungs are easily infected if there are stress factors like extreme weather conditions, dipping, deworming, mixing of animals from different places and age groups and viral infections, including jaagsiekte and maedi-visna.



Signs in live animals

- Signs appear a few days after the animal has been exposed to stress
- Mucous or pus coming from nostrils
- Coughing
- Fast and difficult breathing after exercise
- Fever, depression
- Weight loss.

Signs in dead animals

- Lungs are a dark red to purplish red colour, very firm and swollen with a yellowish white layer covering the lungs.
- The front-bottom portions of the lungs are the ones usually affected.
- The outside layer of the heart is sometimes also covered with a yellowish white layer.

Treatment, prevention and control

- ⦿ Protection of sheep against pasteurellosis is by good management and vaccination.
- ⦿ Reduction of overcrowding, good food, protection against extreme weather conditions and dusty environment and controlling other infections helps to reduce the disease in the flock.

CONTAGIOUS CAPRINE PLEUROPNEUMONIA (CCPP)

CCPP no longer occurs in South Africa, but has been identified in many countries of Africa.

This disease occurs in goats and is similar to lungsickness in cattle, in terms of the signs in live and dead animals.

CCPP is spread by breathing in infected droplets in the air.

ASPIRATION PNEUMONIA

Aspiration pneumonia is seen when the animal gets food or liquid into the windpipe and lungs. This can be due to difficulty in swallowing or birth-related disorders such as cleft palate.

In dead animals, lungs may appear rotten with a lot of dark, dead tissue and gas (gangrene).

HYPOSTATIC PNEUMONIA

This is seen in animals suffering from heart failure, old age and animals that have been lying on their sides for a long period of time.

Affected animals breathe with difficulty and the mouth is bluish.

In dead animals, either the lower half of the lungs or one lung will be dark red.

For further information about recognition, treatment and prevention of respiratory diseases, contact your state veterinarian or animal health technician

or

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