

How to Identify and Control Heartwater in Goats, Sheep, and Cattle for Improved Productivity



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What is Heartwater disease?

Heartwater is a disease of sheep, goats, cattle, camels, antelope, deer, and buffalo spread by infected *Amblyomma* ticks (bond legged tick). Heartwater is widespread in about 30 counties in Kenya. The disease is common where the domestic animals are reared in the wildlife-livestock areas.



Amblyomma spp. tick

Economic importance

- This disease causes heavy economic losses due to deaths of infected livestock
- 50% to 90% of infected domestic animals die
- The disease is a major obstacle in the keeping of productive exotic breeds of sheep, goats, and cattle.

Common clinical signs of Heartwater

The animals experience the following clinical signs:

- Fever
- Convulsions
- Sudden death



A cow experiencing convulsion

- Loss of appetite
- Depression
- Breathing problems
- Nervous system problems (excessive chewing motions, incoordination, circling, and a high-stepping gait)
- Excess fluid in the thoracic cavity, abdomen, and heart on postmortem



Increased fluid around the heart on postmortem

How to detect Heartwater

- Observing clinical signs
- Laboratory
 - Brain smears
 - Molecular methods
 - Serological tests

How to control Heartwater

Control and management of Heartwater can be achieved through:

- Tick control
- Vaccination of animals
- Animals from endemic regions need to be tested before importation
- Culling of infected animals
- Prophylactic treatment using oxytetracycline antibiotics