



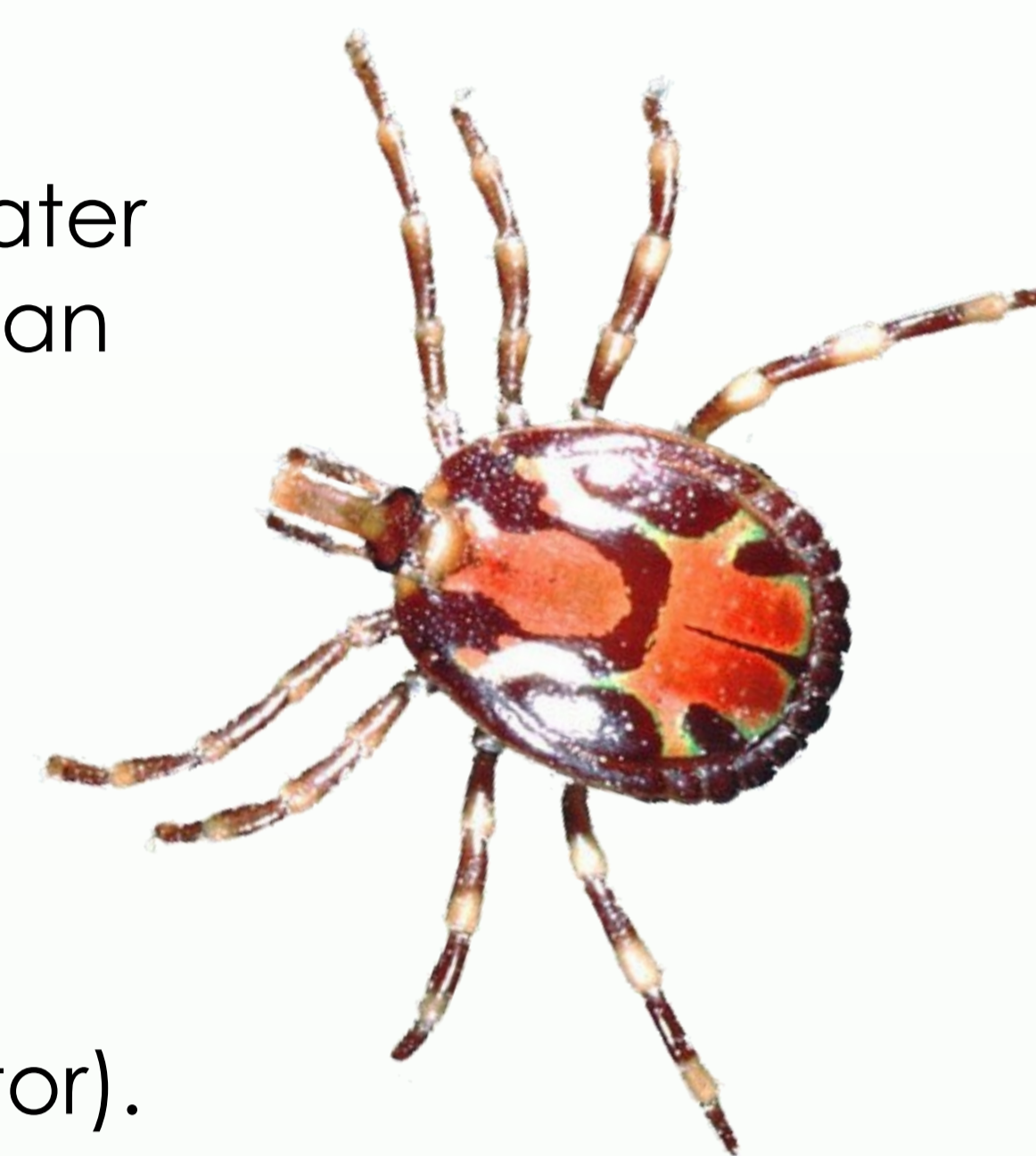
DEPARTMENT OF VETERINARY SERVICES

Heartwater disease in ruminants



What is heartwater disease?

Heartwater is a tick-borne disease that causes deaths in cattle, sheep and goats. Heartwater occurs only where *Amblyomma* tick vectors are present. All domestic and wild ruminants can be infected; the former appear to be the most susceptible.



How does heartwater spread?

- . It is spread by ticks
- . Animals become infected with heartwater after being bitten by an infected tick (vector).
- . Ticks from the family *Amblyomma* (the tropical bont tick) are responsible for the spread of the disease.
- . Ticks become infected with *Ehrlichia ruminantium* by feeding on acutely ill or subclinically infected animals.
- . Heartwater occurs mostly during the rainy season due to increase in tick population, but can occur right throughout the year

What signs do you see in an animal affected by heartwater disease?

There are **four forms** of heartwater disease: **peracute**, **acute**, **subacute**, and the **mild form** (known as **heartwater fever**)

1 The **peracute** form

Animals experience a fever, convulsions, and sudden death. Heavily pregnant cows are particularly susceptible to this form.

2 **Heartwater fever**

- . is a mild form of heartwater, and may occur in some breeds that have a natural resistance to the disease.
- . A brief fever is the only sign of this form of the disease.
- . Animals with heartwater fever usually recover

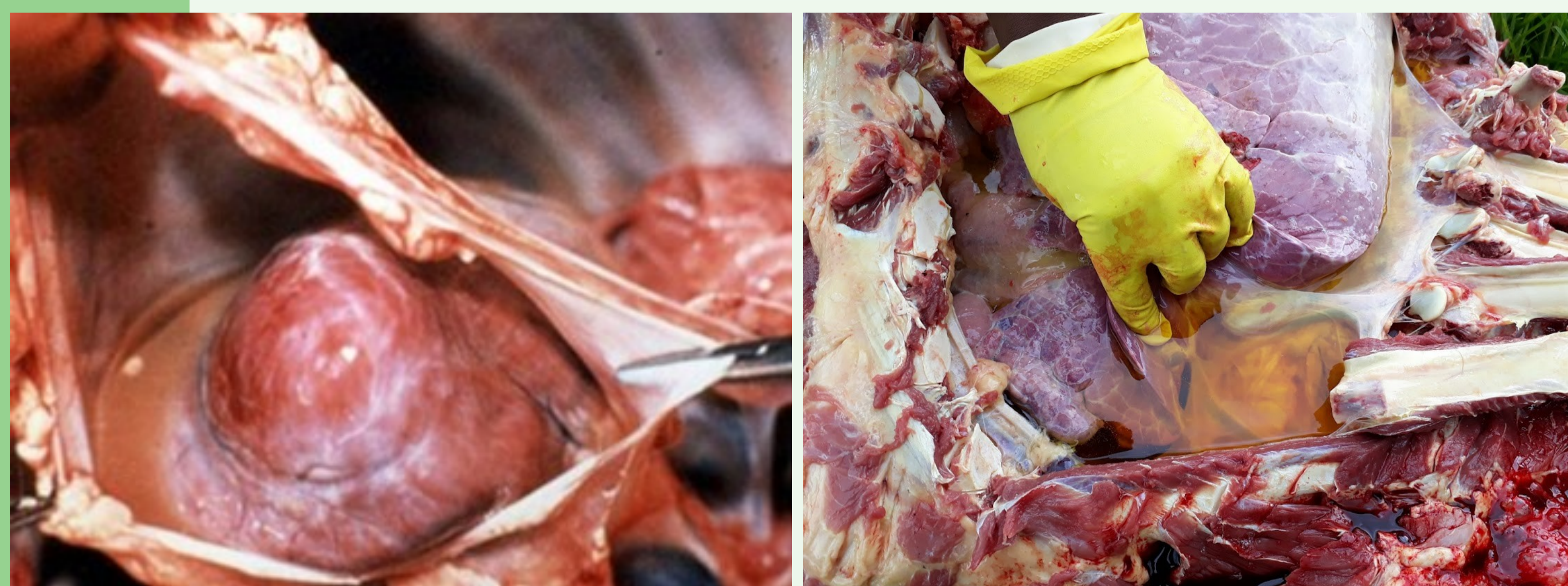
3 The **subacute** form

- . is rare, and animals experience a prolonged fever,
- . coughing, and mild incoordination.
- . The animal will either recover or die within 1 to 2 weeks

4 The **acute** form

- . animals first develop a sudden high fever may exceed 41°C within 1–2 days after onset; remains high for 4–5 weeks with small fluctuations and drops shortly before death,
- . loss of appetite
- . diarrhoea especially in cattle,
- . depression, and breathing problems
- . Nervous system problems may follow, including excessive chewing motions, incoordination, walking in circles, a high-stepping gait and stands rigidly with tremors of the superficial muscles
- . Cattle may push their heads against a wall or present aggressive or anxious behaviour
- . Some animals may experience convulsions.
- . Animal falls to the ground into lateral recumbency, paddling and exhibiting, chewing movements, and frothing at the mouth.
- . Death usually occurs within a week once signs are noticed.

What do you find when you examine an animal that is suspected to have died from heartwater?



- . There is a lot of fluid in the heart sac, chest and sometimes in the abdominal cavity.
- . The lungs are frothy and swollen.

What do you do if you suspect your animal is suffering from heartwater disease?



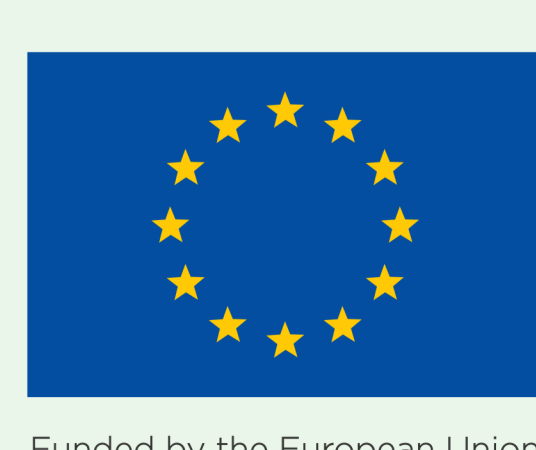
- i) Report to the nearest Veterinary office.
- ii) Treatment with Long Acting Tetracycline

Prevention and control of heartwater !!

- To control ticks through regular dipping or spraying with approved insecticides and tick grease application under tail, axilla and inside the ears.
- Spraying/dipping with Amitraz and Deltamethrin-based dipping chemicals. Recommended dipping interval is weekly from November to March and fortnightly from April to October using Amitraz and every two weeks where we use Deltamethrin 1% pour on. This is done concurrently with tick grease application. It is important to follow the correct dipping interval
- Spot-on dip application along the back of animals.
- Consult with your veterinarian on approved and effective treatment and dipping products



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