Heartwater.
Bont tick (Amblyoma spp.)

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What is Heart water?
It is a disease of domestic and wild ruminants such as cattle, sheep, goats, buffaloes, antelopes etc. It is the second most important tick-borne disease in terms of mortality after East Coast Fever (ECF). It occurs in all Sub-Saharan Africa, Caribbean islands and in the islands surrounding.

What causes it?
The disease is caused by a parasite called *Ehrlichia (Cowdria) ruminantum*. In domestic ruminants the disease is very severe and will cause death if not treated.

How is it transmitted?
The parasites are transmitted from one animal to the other by the Bont ticks. The ticks are colourful (pictured) and are found attached in the axillary region (armpits), the inguinal region (base of the thigh), on the scrotum, udder, in the cleft of hooves and the belly (as shown below).

How do I tell an animal has heart water?
- In very acute cases the animal just drops dead without showing any signs of disease.
- In less severe cases the animal will show nervous signs such as walking in circles, chewing movements, high stepping gait, tremors, pressing head against objects, hypersensitivity and convulsions in terminal cases.

NB: The animals tend to stand with the front legs (picture)

A sheep suffering from heartwater

Heartwater should be suspected when some of these signs are seen in conjunction with the presence of bont ticks. When the carcass is opened, there is a lot of fluid in the chest cavity (hydrothorax), the abdominal cavity (hydroperitoneum) and the heart sac (hydropericardium) hence the name "heartwater".

How do I control the disease?
The most common method of controlling tick-borne diseases is by eradicating the ticks that transmit the diseases through use of acaricides. The effectiveness of this method depends on thorough wetting of the animal. It must be done once weekly. It is expensive and ticks develop resistance to the chemicals over time. The chemicals are toxic to humans and animals and must be handled according to the manufacturers’ instructions. When an animal recovers from heart water it develops immunity to clinical re-infection. Blood-vaccines are available commercially, but they are labourious to administer and there is always the risk of anaphylactic shock.