



DEPARTMENT: AGRICULTURE

## Common and important diseases of cattle



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If you know about the diseases of cattle, you can be aware of how best to prevent and treat them. Many of these diseases can be prevented by good management

Tick damage and tick-borne diseases

### *Tick damage*

- ❖ Ticks can cause severe damage to cattle, particularly around the udder and ears. The wounds will often get infected with bacteria and might be attacked by flies
- ❖ Some ticks cause greater damage than others, such as the ones which infect cattle with heartwater

- ❖ **Prevention is by tick control. You could either use a pour-on, or a plunge dip or spray dip if you have the facilities for this. Pour-ons can be easier to use and you do not need additional facilities, but these are more expensive**
- ❖ **You may need to treat for ticks as often as once a week in the wet season and then every second week in the dry season**
- ❖ **You may be able to treat less often if you vaccinate the cattle against tick-borne diseases**

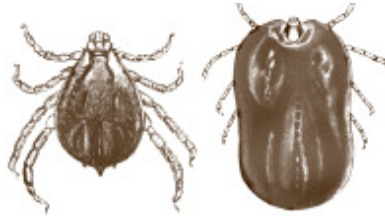


### ***Tick-borne diseases***

- ❖ **Ticks can also infect cattle with redwater, gallsickness and heartwater**
- ❖ **European breeds tend to be at greater risk from these diseases than indigenous and Brahman type breeds**
- ❖ **Older animals are more at risk than young animals for redwater and gallsickness**
- ❖ **Prevention of tick-borne diseases is by tick control, as already mentioned, as well as vaccination**
- ❖ **Vaccination is best done in calves under 6 months of age and one dose is sufficient. The heartwater vaccine is given in the vein, and it must be done by a veterinarian. Because these are live vaccines, signs of disease can occur and treatment may be needed following vaccination, especially for the heartwater vaccine. Contact your veterinarian for advice on these vaccines**

### **Redwater**

- **Signs of redwater are fever, lack of appetite, red urine, pale to yellow gums and eyes, and sometimes nervous signs such as difficulty in walking**



**Redwater is caused by the blue tick. Left is the male with the female on the right**

- This disease can lead to deaths if the animals are not treated in time
- Treatment involves keeping the cattle calm. They should not be driven over long distances and should be injected with Berenil or Imizol
- The dose for Berenil is 5 ml of made up solution (1 packet mixed with 12,5 ml of sterile water) for each 100 kg (for example, 20 ml for a 400 kg animal)
- The dose for Imizol is 1 ml for each 100 kg (for example, 4 ml for a 400 kg animal)

## Gallsickness

- ◆ Apart from being passed to cattle by ticks, gallsickness can also be spread among cattle by blood, for example by biting insects, dehorning and injecting the animals with the same needle
- ◆ Signs of gallsickness are depression, lack of appetite, fever, pale to yellow gums and eyes, as well as constipation. The animal can be sick for a longer period than in the case of redwater or heartwater



- Treatment involves keeping the cattle calm. They should not be driven over long distances. Tetracycline or Imizol injections can be given
- The dose for Tetracycline will

depend on the type you are using. It is important to read the instructions on the bottle

- q The dose for Imizol is 2,5 ml for each 100 kg (for example, 10 ml for a 400 kg animal). **Note that this is a much higher dose than for redwater**



***Gallsickness is caused by the red-legged tick. The figure above shows the male tick***

## Heartwater

- ❖ Signs of heartwater are fever, depression, high-stepping, leading to convulsions and death
- ❖ Treatment is with Tetracycline, as already mentioned. Read the instructions on the bottle for the dose

## Diseases that people can get from cattle

### ***Brucellosis***

- Brucellosis can cause abortion in cows and is also highly infectious to people



- People get infected by drinking untreated milk from animals which have the disease or by handling them
- Signs of disease in people are tiredness,



headaches, night sweat, muscle pain and loss of appetite

Drink

pasteurised/  
treated milk!

**Prevention involves vaccination and testing of the blood of the animal used and it is best that it is injected by your veterinarian or animal health technician. Pregnant animals must not be vaccinated, because they will abort**

- ❖ **Cows should also be bled by your state veterinarian or animal health technician yearly to check if they are free of brucellosis**
- ❖ **Cows testing positive for brucellosis are branded with a C brand on the neck. Do not buy a cow with this brand, because she is infected and may spread the disease to your other cows**
- ❖ **Note that abortion can be caused by many different diseases, of which brucellosis is one of the most important. Some of these may be spread by the bull. If your cows are aborting it is very important to get the cause identified by your state veterinarian. Care must be taken when handling aborted calves. Wear gloves to protect you from becoming infected**

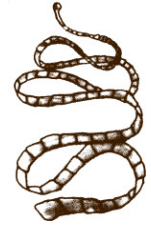


### ***Tuberculosis (TB)***

- ❖ **Cattle with tuberculosis often become very thin over time**
- ❖ **People can get TB from cattle by drinking infected milk**
- ❖ **You should have your herd tested for TB every year by your state veterinarian. This involves a skin test**
- ❖ **Animals testing positive are given a T brand on the left side of the neck**



## ***Cattle measles***



- ❖ **Cattle measles is a stage of a tapeworm in cattle. When people eat affected meat which is undercooked, they develop tapeworms in the gut**
- ❖ **Cattle are infected when they pick up tapeworm eggs when grazing on pastures which are polluted because of unhygienic toilet practices by infected people**
- ❖ **Infected cattle do not look sick and measles can only be seen in the meat at slaughter**
- ❖ **Cattle measles can lead to downgrading of your meat**
- ❖ **Prevention involves good hygiene on farms. Use toilets, and not the veld**



## ***Anthrax***

- ❖ **Anthrax causes sudden death in cattle**
- ❖ **People can get infected by eating infected meat and through cuts and sores. Anthrax can lead to death**
- ❖ **Infected carcasses should not be cut open and should be buried or burnt**
- ❖ **Prevention is by vaccination**
- ❖ **If you suspect that anthrax may be present, contact your state veterinarian for advice**

## ***Rabies***

- ❖ **Rabies does not often occur in cattle, but they can be infected when bitten by a rabid dog or jackal**
- ❖ **Cattle can either become very aggressive and excited, (e.g.with bellowing), or develop the "dumb" form, when they are quiet**
- ❖ **Once cattle show signs of rabies, treatment is no longer possible**
- ❖ **People can become infected when feeling inside the mouth of a salivating animal for a**

possible blockage, and then being bitten

- ❖ Prevention is by vaccination

## Diet-related problems

### *Eating plastic bags and wire*

- ❖ This occurs when cattle do not get enough food, or if their diet does not contain enough phosphorus particularly during the dry season
- ❖ It can also occur if you buy bales of hay or lucerne that have wire around them, or if cattle graze close to a fence recently put up or repaired
- ❖ Plastic bags can block up the stomach, while wires can puncture it. In both cases the animal will look sick and uncomfortable, and it usually dies
- ❖ Once the cow has eaten plastic bags or wire, the only effective treatment is an operation, which is expensive
- ❖ Prevention involves the following:
  - Feed cattle well, especially in winter
  - Clear wires and plastic bags from the grazing area
  - Watch cattle closely when they are grazing



### *Poisonous plants*

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|---|--|
| <ul style="list-style-type: none"><li>❖ Toxic plants can cause serious diseases and deaths in cattle</li><li>❖ It is important to know what toxic plants occur in your area, and to prevent your cattle from eating these</li></ul> |  |
|---|--|

- ❖ Poisoning can especially be a problem when you buy in new animals which are not used to the plants in your area and are more likely to eat toxic plants
- ❖ Poisoning can also happen when you move cattle to new paddocks where toxic plants occur
- ❖ A common poisonous plant is gifblaar. The time when poisoning occurs most is at the end of the dry season, when this plant may be the only green food to eat. The plant leads to sudden death in cattle



***The  
"boetebossie"***

## **Diseases causing lameness and paralysis**

### ***Foot problems***

- ❖ **Cattle can get foot problems, especially if they are kept in damp conditions, such as in the kraal**
- ❖ **These problems can be avoided by clean conditions**
- ❖ **One such problem is footrot, which is an infection between the claws of the feet. The foot is swollen and may have a bad odour, and as the animal becomes lame it may have difficulty eating enough because it cannot walk long distances. Treatment is with antibiotics (penicillin antibiotics are best). There are many different types and you must read the instructions on the**



bottle. The long-acting injections are good, because you only need to inject once. For example, for a drug with a dose of 1 ml for each 10 kg, you would give 40 ml to a 400 kg animal and formalin foot baths

- ◆ Another foot problem can be overgrown hooves, which also causes lameness. Treatment involves trimming of hooves

### ***Botulism***

- ◆ Botulism can occur when cattle eat hay or silage polluted by carcass material or bones when grazing, or poultry litter
- ◆ Cattle will eat carcass and bone material when there is a lack of feed during winter or if they have a phosphorus deficiency
- ◆ This disease causes paralysis and the animal usually dies
- ◆ Treatment is only possible in the early stages and requires an antitoxin
- ◆ Prevention involves vaccination and good nutrition during winter. You should also burn or bury all carcasses, bones or decaying material



	<p><b><i>Blackquarter</i></b></p> <ul style="list-style-type: none"> <li>◆ Blackquarter is a disease that causes swelling of a leg, lameness and death</li> <li>◆ Penicillin treatment may be possible in the early stages</li> <li>◆ Prevention is by vaccination</li> </ul>
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### ***Tetanus***

- ◆ Tetanus occurs when animals are infected through wounds, or during castration or dehorning
- ◆ The animal becomes very stiff and death results
- ◆ Penicillin treatment may be possible in the early stages
- ◆ Prevention is by vaccination

### ***Three-day stiffness***

- ❖ **This disease is spread to cattle by biting insects**
- ❖ **It causes lameness and sometimes the animal lies down**
- ❖ **The animal will usually get better on its own within 3 days**
- ❖ **It is important that the animal is given food and water if it is unable to stand**
- ❖ **Prevention is by vaccination**

### **Lumpy-skin disease (LSD)**

- ❖ **This disease is another important cattle disease in many areas. It is spread among animals by contact and also by biting insects**
- ❖ **It causes lumps in the skin, but can also lead to death if the lumps are inside the animal**
- ❖ **Lumpy-skin disease can lead to a downgrading of your meat**
- ❖ **Prevention is by vaccination**
- ❖ **If your cattle get this disease, you should speak to your state veterinarian**

### **Worms**

- ❖ **Worms can lead to poor condition, particularly in calves**
- ❖ **Prevention and treatment is by deworming**

### **Disease prevention**

#### ***Vaccination***

- ❖ **Calves should be vaccinated against blackquarter, botulism, tetanus and anthrax between 3 and 4 months of age and then given a second vaccine for blackquarter, botulism and tetanus 4 weeks later**
- ❖ **Calves should be vaccinated against brucellosis at 4 to 8 months of age. Pregnant animals**

**should never be vaccinated.**

- ❖ **Cattle should get a booster vaccination yearly against anthrax, blackquarter and botulism**
- ❖ **Calves should be vaccinated against tick-borne diseases at 3 to 9 months of age**
- ❖ **Speak to your veterinarian or animal health technician about the need for other vaccines in your area**
- ❖ **It is very important to give cattle the correct number of vaccination as recommended. If they are not, they will not be properly protected against the diseases. Vaccinated cows will also pass on some protection to the calves**

### ***Tick and worm control***

- ❖ **Speak to your state veterinarian or animal health technician about the best methods to control ticks and worms in your area**
- ❖ **The bottles sold as tick and worm remedies are often for large numbers of animals. It may be a good idea for a group of animal owners to buy together and share the remedies**

### ***Brucellosis and TB testing***

- ❖ **This should be done yearly by your state veterinarian**

### **Conclusion**

- ❖ **Good hygiene, management and nutrition are the most important factors in producing healthy cattle**
- ❖ **Prevention is better than cure! Vaccinate and practise good tick and worm control**
- ❖ **For advice and treatment, always speak to your state or private veterinarian or your animal health technician. Many of the drugs can only be used by your veterinarian**
- ❖ **When using drugs for treatment, make sure that you give the right dose (the drugs must also be registered for use in cattle) for the right length of time or they will not be effective**
- ❖ **When using drugs for treatment do not sell the animal or use it yourself for meat or milk**

**until the withdrawal period has passed**

**For further information contact  
your animal health technician, state/private veterinarian  
or  
*Animal Health for Developing Farmers*  
ARC-Onderstepoort Veterinary Institute  
Private Bag X05, Onderstepoort 0110**



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