

# PRIORITY ANIMAL DISEASES SHEETS

## Animal Health Pedagogical Toolkit

- ◆ Non-zoonotic notifiable diseases
- ◆ Zoonotic notifiable diseases
- ◆ Non-notifiable diseases





# ANIMAL HEALTH PEDAGOGICAL TOOLKIT

*These Priority Animal Disease Sheets are extracted from the **Animal Health Pedagogical Toolkit** which includes:*

**The Manual for Animal Health Staff** which constitutes a support for continuous training and a reference guide for the field. It contains five sections organized around the main areas of animal health. Each section provides a clear and illustrated explanation of the important concepts to be aware of for the daily exercise of community-based animal health workers, veterinary paraprofessionals and private and/or public veterinarians. The role of each of these actors, the recognition of priority animal diseases and the basic animal health techniques are fully explained in this handbook.

**The Priority Animal Diseases Sheets** below for the recognition of 30 animal diseases and syndromes. Included in the Manual for Animal Health Staff, they are also available as independent double-sided sheets. Each of them provides a clear, practical and illustrated summary to optimize the recognition of the clinical signs of priority animal diseases in the Sahel and the actions to be taken by animal health staff in response to them.

**The Educational Kit** composed of 8 practical sheets on active teaching methods and techniques. These sheets are intended for trainers who will deploy the Animal Health Pedagogical Toolkit in the field during training and awareness-raising sessions for animal health staff.

**The User Guide** which explains the content and the objectives of the Animal Health Pedagogical Toolkit. It also describes the intended audiences, teaching and learning situations in which trainers will be able to deploy it.



# PRIORITY ANIMAL DISEASES SHEETS

## Animal Health Pedagogical Toolkit

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*In the event of discrepancies, the original language will govern*

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# 30 PRACTICAL SHEETS ON PRIORITY ANIMAL DISEASES

## Non-zoonotic notifiable diseases

- ◆ *Anaplasmosis*
- ◆ *Babesiosis*
- ◆ *Sheep pox and goat pox*
- ◆ *Cowdriosis*
- ◆ *Lumpy skin disease*
- ◆ *Foot-and-mouth disease*
- ◆ *Bluetongue*
- ◆ *Newcastle disease*
- ◆ *Contagious bovine pleuropneumonia*
- ◆ *Peste des petits ruminants*
- ◆ *African swine fever*
- ◆ *Contagious caprine pleuropneumonia*
- ◆ *Theileriosis*

## Zoonotic notifiable diseases

- ◆ *Brucellosis*
- ◆ *Anthrax*
- ◆ *Echinococcosis*
- ◆ *Rift Valley fever*
- ◆ *Q fever*
- ◆ *West Nile fever*
- ◆ *Avian influenza*
- ◆ *Rabies*
- ◆ *Trypanosomiasis*
- ◆ *Bovine tuberculosis*

## Non-notifiable diseases

- ◆ *Blackleg*
- ◆ *Dermatophilosis*
- ◆ *Fasciolosis*
- ◆ *Scabies*
- ◆ *Pasteurellosis*
- ◆ *Photosensitization*
- ◆ *Intestinal worms*









# ANAPLASMOSIS

*Non-zoonotic notifiable diseases*



Species concerned	Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Anaplasmosis is a non-contagious bacterial infectious disease</li> <li>◆ <u>Bacteria</u>: Members of the family Anaplasmataceae, <i>Anaplasma marginale</i> and <i>Anaplasma centrale</i> bacteria are both responsible for anaplasmosis</li> <li>◆ <u>Incubation period</u>: 25 to 50 days</li> </ul>
Clinical signs	Transmission
<ul style="list-style-type: none"> <li>◆ Anorexia, depression (3)</li> <li>◆ Joint pain (4, 5)</li> <li>◆ High fever</li> <li>◆ Drop in milk production</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Vector-borne, ticks of the genus <i>Rhipicephalus</i> (<i>Boophilus</i>) and <i>Amblyomma</i> (e.g. <i>R. Boophilus microplus</i>, 1; <i>Amblyomma variegatum</i>, 2)</li> </ul> <div style="display: flex; justify-content: center; align-items: center; gap: 20px;">   </div>
Samples	Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (Vacutainer 5ml), or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ Preventive treatment is acaricide</li> <li>◆ Curative treatment can be based on IMIDOCARBE</li> </ul>



# BABESIOSIS

Non-zoonotic notifiable diseases



Species concerned	Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Babesiosis is a non-contagious disease of cattle caused by the protozoan parasites <i>Babesia bovis</i> and <i>Babesia Bigemina</i></li> <li>◆ <u>Parasites</u>: Members of the family Babesiidae, <i>Babesia bovis</i> and <i>Babesia Bigemina</i> invade the erythrocytes of their host</li> <li>◆ <u>Incubation period</u>: 5 to 10 days</li> </ul>
Clinical signs	Transmission
<ul style="list-style-type: none"> <li>◆ Hemoglobinuria, hematuria (3,4)</li> <li>◆ Pipe-stem diarrhea (5)</li> <li>◆ Lethargy</li> <li>◆ High fever</li> <li>◆ Nervous disorders, pedaling</li> <li>◆ Jaundice (6)</li> <li>◆ Abortions</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Vector-borne, ticks of the genus <i>R. Boophilus</i> and <i>Ixodes</i> (e.g.: <i>R. Boophilus microplus</i>, 1; <i>Ixodes scapularis</i>, 2)</li> </ul> <div style="text-align: center;"> </div>
Samples	Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (Vacutainer 5ml), or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ Preventive treatment is acaricide</li> <li>◆ Curative treatment can be based on IMIDOCARBE</li> </ul>



# SHEEP POX AND GOAT POX

*Non-zoonotic notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Sheep pox and goat pox are highly contagious viral diseases of sheep and goats</li> <li>◆ <u>Virus</u>: Member of the family Poxviridae and the genus <i>Capripoxivirus</i>, it is highly resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 5 to 15 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Macules then papules from 0.5 to 1.5 cm in diameter, evolving into nodules that dry (scabs) and leave scars. They are usually located on lips, tongue, eyes, ears, udders and teats (1,2,3,4)</li> <li>◆ Enlargement of the lymph nodes, especially the prescapular lymph node</li> <li>◆ Nasal, ocular and oral discharge</li> <li>◆ High fever</li> <li>◆ Dyspnea</li> <li>◆ Lethargy</li> <li>◆ Abortions</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact with a sick animal and/or absorption of any contaminated animal secretion and/or production</li> <li>◆ <u>Indirect</u>: Mechanically (litter, food, clothing, equipment...)</li> </ul> <div style="text-align: center;"> </div>
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Biopsy of skin papules, blood with anticoagulant (Vacutainer 5ml), or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ Disinfect wounds</li> <li>◆ Curative treatment can be based on TETRACYCLINE</li> </ul>



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### *Specific recommendations and measures to be taken in the event of sheep pox and goat pox*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for papules and nodules on lips, eyes, ears and teats;
- ◆ Disinfect potential wounds.

For the veterinary paraprofessional:

- ◆ Oversee the good practice of disinfection and treatment chosen by the veterinarian;
- ◆ Set up quarantine for sick animals (for at least 45 days);
- ◆ Oversee the implementation of the vaccination program set up by the veterinarian.


For the private and/or public veterinarian:

- ◆ Assess the treatment to be implemented;
- ◆ Set up an annual vaccination program targeting all animals in a specific epidemiological and geographical area.

# COWDRIOSIS

*Non-zoonotic notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Camelids</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Cowdriosis is a non-contagious bacterial infectious disease</li> <li>◆ <u>Bacterium</u>: Member of the Rickettsiaceae family, <i>Ehrlichia ruminantium</i> is transmitted by a tick</li> <li>◆ <u>Incubation period</u>: 10 to 20 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Sudden and high hyperthermia</li> <li>◆ Dyspnea</li> <li>◆ Nervous disorders: turning, pedaling, convulsions, teeth grinding, head pressing (3), hindquarters paralysis (4), opisthotonos (5)</li> <li>◆ High fever</li> <li>◆ Lethargy</li> <li>◆ Abortions (especially in camelids)</li> <li>◆ Diarrhea (especially in cattle)</li> <li>◆ Sudden death in hyperacute form</li> </ul>	After autopsy	<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Vector-borne, ticks of the genus <i>Amblyomma</i> (e.g. <i>Amblyomma variegatum</i>, 1, 2)</li> </ul> 
	<ul style="list-style-type: none"> <li>◆ Hydropericardium and hydrothorax (6,7)</li> </ul>	
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (Vacutainer 5ml), or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Brain biopsy</li> </ul>	<ul style="list-style-type: none"> <li>◆ Preventive treatment is acaricide</li> <li>◆ Curative treatment can be based on TETRACYCLINE</li> </ul>





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## Specific recommendations and measures to be taken in the event of cowdriosis

For the CAHW:

- ◆ Inspect all animals with the farmer looking for nervous disorders, dyspnea, sudden hyperthermia and high fevers;
- ◆ Destroy insect nests, clear the bushes.

For the veterinary paraprofessional:

- ◆ Oversee the implementation of the vector control program set up by the veterinarian;
- ◆ Find out the *Amblyomma* tick areas locations.

For the private and/or public veterinarian:

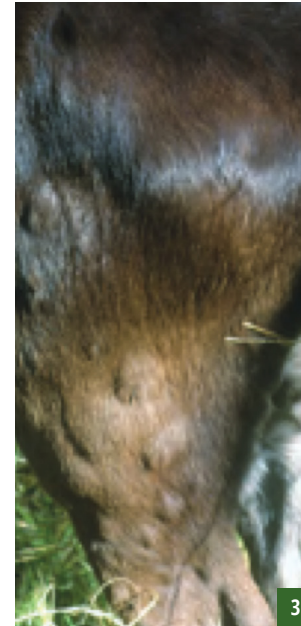
- ◆ Set up a vector control program (external disinfestation, destruction of insect nests, brush clearing, etc.);
- ◆ Map *Amblyomma* tick areas.

# LUMPY SKIN DISEASE

*Non-zoonotic notifiable diseases*



Species concerned	Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Lumpy skin disease is a highly contagious viral disease of the cattle</li> <li>◆ <u>Virus</u>: Member of the genus <i>Capripoxivirus</i>, of the family Poxviridae, it is highly resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 10 to 30 days</li> </ul>
Clinical signs	Transmission
<ul style="list-style-type: none"> <li>◆ Cutaneous nodules from 0.5 to 5 cm in diameter that necrotize and superinfect (1,2,3,4,5)</li> <li>◆ Purulent ocular and nasal discharge</li> <li>◆ Hypersalivation</li> <li>◆ Persistent fever</li> <li>◆ Anorexia, depression</li> <li>◆ Edemas of members</li> <li>◆ Swollen lymph nodes</li> <li>◆ Drop in milk production</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact with a sick animal and/or absorption of any contaminated animal secretion and/or production</li> <li>◆ <u>Indirect</u>: Vector-borne (biting fly, mosquito, tick...)</li> </ul> <div data-bbox="1429 788 1742 1038" data-label="Image"> </div>
Samples	Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Biopsy of skin nodules, lymph node fluid, blood with anticoagulant (Vacutainer 5ml), or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> </ul>



## *Specific recommendations and measures to be taken in the event of contagious lumpy skin disease*

For the CAHW:

- ◆ Inspect with the farmer all animals looking for skin nodules;
- ◆ Destroy insect nests, clear the bushes.

For the veterinary paraprofessional:

- ◆ Oversee the implementation of the vector control program set up by the veterinarian.

For the private and/or public veterinarian:

- ◆ Set up a vector control program (external disinfestation, destruction of insect nests, brush clearing, etc.);
- ◆ Set up a ring vaccination strategy, if necessary, around the outbreaks.

# FOOT-AND-MOUTH DISEASE

*Non-zoonotic notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>	<ul style="list-style-type: none"> <li>◆ Swine</li> <li>◆ Camelids</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Foot-and-mouth disease is a serious and highly contagious viral disease</li> <li>◆ <u>Virus</u>: Member of the genus <i>Aphthovirus</i>, of the family Picornaviridae, it is resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 2 to 7 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ <b>Hypersalivation and bad breath (1)</b></li> <li>◆ <b>Extensive lesions in the mouth, especially on the tongue and the soft palate (2)</b></li> <li>◆ <b>Lameness</b></li> <li>◆ Fever</li> <li>◆ Loss of appetite, anorexia, lethargy</li> <li>◆ Lesions between the cloven hooves, above the cloven hooves and at the udder level (3, 4)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Vesicles on teats (sudden drop in milk production) (5)</li> <li>◆ Long and bristly hair (sometimes) (6)</li> <li>◆ Abortions</li> <li>◆ Infertility</li> <li>◆ In calves: polypnea and death</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact with a sick animal and/or absorption of any contaminated animal secretion and/or production</li> <li>◆ <u>Indirect</u>: Mechanically (litter, food, clothing, equipment...)</li> </ul>
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal sick for less than 10 days</u>: Epithelium and lymph in the vesicles + 1 cm<sup>2</sup>/1g of epithelium from vesicles (tongue, mucous membranes, interdigital spaces) and/or oropharyngeal samples</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Living animal sick for more than 10 days</u>: Serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ Support treatment on young animals if necessary</li> <li>◆ There is no specific treatment except symptomatic</li> <li>◆ Dead animals must be buried deep and destroyed with quicklime</li> </ul>



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## *Specific recommendations and measures to be taken in the event of foot-and-mouth disease*

For the CAHW:

- ◆ Inspect with the farmer all animals looking for vesicles throughout the body, especially the oral cavity, feet and udders. Identify the presence of fever, hypersalivations and lameness;
- ◆ Bury dead animals 2 meters deep with quicklime.

For the veterinary paraprofessional:

- ◆ Confine the herd and set up a security perimeter;
- ◆ Oversee the slaughtering and destruction of corpses.


For the private and/or public veterinarian:

- ◆ Set up vaccination campaigns if the virulent strain is characterized, in accordance with the country's health authority.

# BLUETONGUE

*Non-zoonotic notifiable diseases*




Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Camelids</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Bluetongue is a non-contagious viral disease</li> <li>◆ <u>Virus</u>: Member of the genus <i>Orbivirus</i>, of the family Reoviridae, it is not resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 5 to 12 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Hemorrhages and ulcerations of tissues in the oronasal sphere (1)</li> <li>◆ Hypersalivation (2), nasal discharge (3) and swelling of the lips</li> <li>◆ Lameness</li> <li>◆ Fever</li> <li>◆ Loss of appetite, anorexia</li> <li>◆ Diarrhea, vomiting</li> <li>◆ Blue tongue (rare) (4)</li> <li>◆ Pneumonia</li> <li>◆ Possible abortions</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Vector-borne (small biting insects of the genus <i>Culicoides</i>)</li> </ul> 
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (Vacutainer 5ml)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Serum, spleen</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> </ul>



# NEWCASTLE DISEASE

*Non-zoonotic notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ All bird species</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Newcastle disease is highly contagious and viral bird disease</li> <li>◆ <u>Virus</u>: Member of the genus <i>Rubulavirus</i>, of the family Paramyxoviridae, it is relatively stable in the outdoor environment, especially in cold weather</li> <li>◆ <u>Incubation period</u>: From 2 to 15 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ <u>General symptoms</u>: depression, loss of appetite, lethargy (1)</li> <li>◆ <u>Digestive symptoms</u>: greenish diarrhea</li> <li>◆ <u>Respiratory symptoms</u>: dyspnea, nasal discharge, rales</li> <li>◆ <u>Nervous symptoms</u>: tremors, paralysis, spasms (2)</li> <li>◆ <u>Cutaneous symptoms</u>: swollen comb and wattles, red spots on the skin</li> <li>◆ Relatively sudden drop in egg-laying, egg anomaly (3)</li> <li>◆ Sudden death (often very high mortality)</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorption of any contaminated animal secretion and/or production (mainly fecal and respiratory)</li> <li>◆ <u>Indirect</u>: Mechanically (litter, food, clothing, equipment...)</li> </ul> 
After autopsy		
<ul style="list-style-type: none"> <li>◆ Very red ovaries (4)</li> <li>◆ Mucous membrane of the proventriculus very red (5)</li> <li>◆ Cecal tonsils very red (6)</li> </ul>		
Samples	Treatment	
<ul style="list-style-type: none"> <li>◆ <u>Living or dead animal</u>: Cloacal and tracheal swabs, feces, intestinal fragments, brain, trachea, lungs, liver and spleen, or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> <li>◆ Dead animals must be burned or buried deep and destroyed with quicklime</li> </ul>	



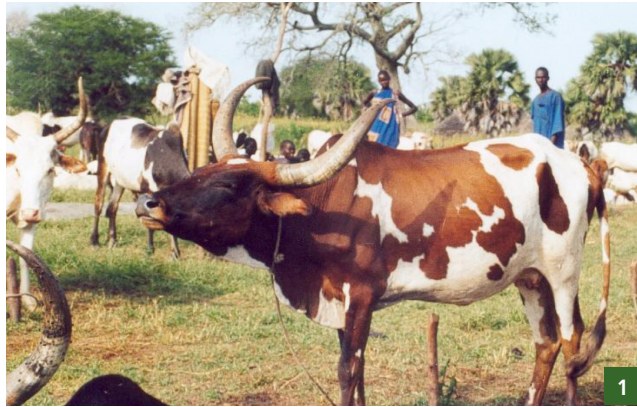


# CONTAGIOUS BOVINE PLEUROPNEUMONIA

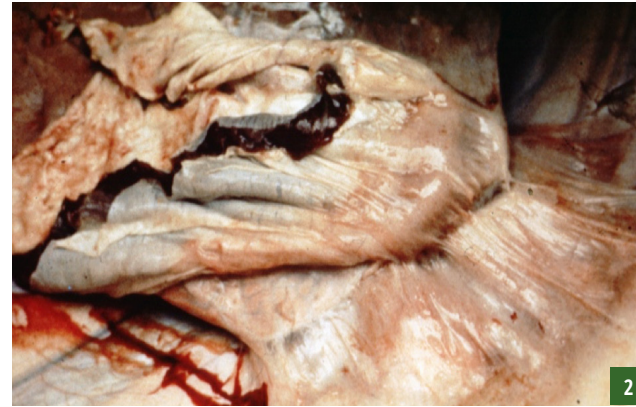
*Non-zoonotic notifiable diseases*



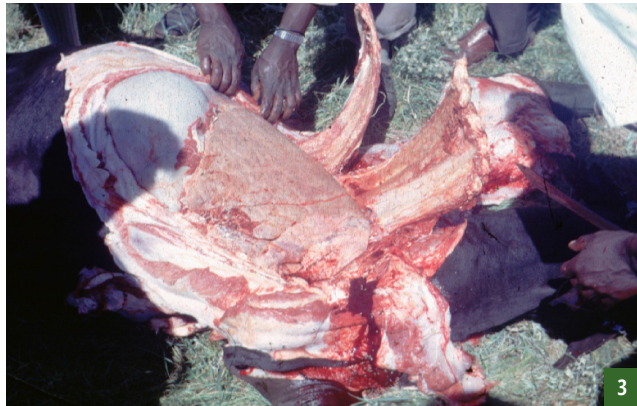
Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Contagious bovine pleuropneumonia is a highly contagious bacterial infectious disease</li> <li>◆ <u>Bacterium</u>: Member of the Mycoplasmataceae family, <i>Mycoplasma mycoides</i> is not resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 20 to 120 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Coughing</li> <li>◆ Difficulty in breathing immobilizing the whole body, dilated nostrils, malodorous breath</li> <li>◆ Horizontal head (1)</li> <li>◆ Nasal discharge</li> <li>◆ Weight loss, grunts</li> <li>◆ Drop in milk production</li> <li>◆ Swollen jugular vein</li> <li>◆ Dull sounds at percussion</li> <li>◆ Elbows facing outwards</li> <li>◆ Walking with a round back</li> <li>◆ Frequent joint hypertrophy in calves</li> </ul>	<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>◆ Adherence to ribs (2, 3)</li> <li>◆ Omelet appearance surrounding the lungs (4)</li> <li>◆ Adherence of the heart to the lungs (5)</li> <li>◆ Mosaic appearance of the lungs (6)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorption of nasal secretions or droplets breathed out into the air by the sick animal</li> </ul> <div style="text-align: center;"> </div>
	Samples	Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Pleural fluid (5 ml), bronchoalveolar/nasal swabs, or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Pleural fluid (5 ml), whole regional lymph nodes, lung fragments</li> </ul>	<ul style="list-style-type: none"> <li>◆ Depending on the case, it is recommended to favor slaughter over antibiotic care. Indeed, antibiotic care can lead to apparently healthy animals who still breath out infected secretions</li> </ul>



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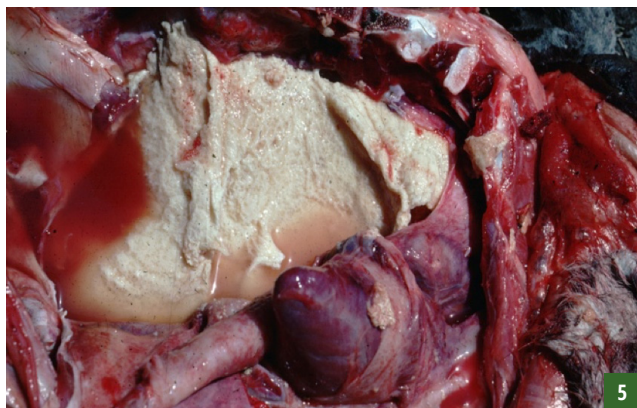
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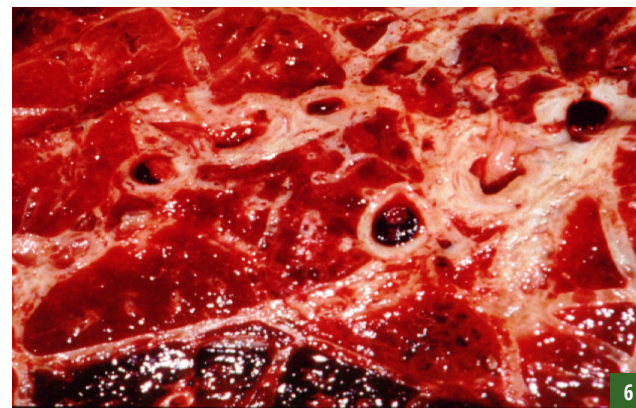
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## *Specific recommendations and measures to be taken in the event of contagious bovine pleuropneumonia*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for nasal discharge, difficulty in breathing and coughing;
- ◆ Help farmers to sort and isolate sick animals by a first clinical examination. Then, make the animals run for 5 minutes and re-inspect them.

For the veterinary paraprofessional:

- ◆ Attend slaughter and keep a record of any suspicious lesions observed in the rib cage.


For the private and/or public veterinarian:

- ◆ Recommend the slaughter of animals with persistent coughing;
- ◆ Set up an annual vaccination program targeting all animals in a specific epidemiological and geographical area.

# PESTE DES PETITS RUMINANTS

*Non-zoonotic notifiable diseases*





Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Peste des petits ruminants, also known as “Sheep and goat plague” is a highly contagious viral disease of sheep and goats</li> <li>◆ <u>Virus</u>: Member of the genus <i>Morbillivirus</i>, of the family Paramyxoviridae, the virus does not survive for a long time outside the body of a host animal.</li> <li>◆ <u>Incubation period</u>: 3 to 6 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Sudden onset of high fever</li> <li>◆ Severe depression</li> <li>◆ Eye (1), nasal (2) and oral discharge, first clear and then purulent</li> <li>◆ Severe diarrhea sometimes mixed with blood (3)</li> <li>◆ Breathing difficulties with cough</li> <li>◆ Sores in the mouth (4), the animal no longer eats</li> <li>◆ Cracked and dry nostrils</li> <li>◆ Abortions</li> <li>◆ Sudden death (in 5-10 days)</li> </ul>	After autopsy	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact with a sick animal and/or absorption of any contaminated animal secretion and/or production</li> <li>◆ <u>Indirect</u>: Mechanically (litter, food, clothing, equipment...)</li> </ul> 
	<ul style="list-style-type: none"> <li>◆ Pulmonary hemorrhages (5)</li> <li>◆ Red striated colon (6)</li> </ul>	
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (Vacutainer 5ml), eye, buccal and/or nasal swabs, or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u> : Samples from lymph nodes, lung, intestine, spleen</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> <li>◆ Dead animals and abortion residues must be buried deep and destroyed with quicklime</li> </ul>



# AFRICAN SWINE FEVER

*Non-zoonotic notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Swine</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: African swine fever is a highly contagious hemorrhagic disease</li> <li>◆ <u>Virus</u>: Member of the genus <i>Asfivirus</i>, of the family Asfarviridae, it remains infectious for several months in carcasses</li> <li>◆ <u>Incubation period</u>: 5 to 15 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Generalized bleeding</li> <li>◆ Vomiting and diarrhea with blood</li> <li>◆ Physical depression (3)</li> <li>◆ Cyanosis and redness on the abdomen and under the ears (4)</li> <li>◆ High fever for 3-4 days</li> <li>◆ Clustering and hyperthermia (5)</li> <li>◆ Generalized jaundice</li> <li>◆ Cough, respiratory distress</li> <li>◆ Conjunctivitis</li> <li>◆ Loss of appetite</li> <li>◆ Unsteady walking</li> <li>◆ Very high contagion (100%)</li> <li>◆ Very high mortality rate</li> </ul>	<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>◆ Hemorrhagic carcass (6)</li> <li>◆ Large dark spleen (7)</li> <li>◆ Enlarged and bloated lymph nodes</li> <li>◆ Edematous lungs</li> <li>◆ Red spots on the kidneys</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact with a sick animal (1) or by absorption of contaminated waste</li> <li>◆ <u>Indirect</u>: Vector-borne (biting fly, tick <i>Ornithodoros moubutu</i> - 2) and/or Mechanically (litter, food, clothing, equipment...)</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>1</p> </div> <div style="text-align: center;">  <p>2</p> </div> </div>
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (vacutainer 5ml), spleen, tonsils, ileocecal lymph nodes, kidneys</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no treatment or vaccine</li> <li>◆ Dead animals must be buried deep and destroyed with quicklime (8 to 11)</li> </ul>



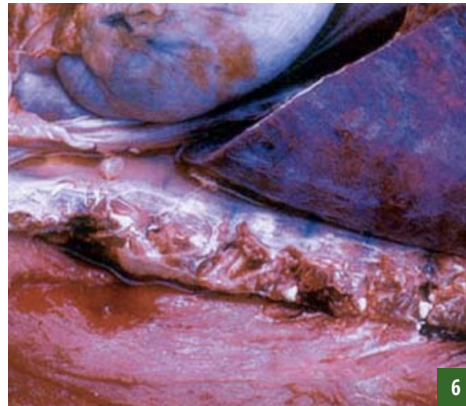
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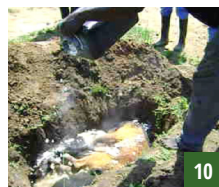
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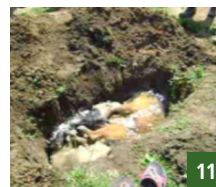
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11

## *Specific recommendations and measures to be taken in the event of African swine fever*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for bleeding, high contagiousness and sudden death;
- ◆ Remove parasites from quarantined pigs and bury dead animals 2 meters deep with quicklime;
- ◆ Enforce disinfection of vehicles, shoes, clothing and equipment with 1% caustic soda.

For the veterinary paraprofessional:

- ◆ Confine the herd and set up a security perimeter;
- ◆ Enforce quarantine for all farms within a 20 km radius around the outbreak;
- ◆ Oversee the disinfection of all quarantined pigs;
- ◆ Oversee the disinfection, slaughter and destruction of corpses.

For the private and/or public veterinarian:

- ◆ Order the following sanitary measures, for 40 days:
  - ◆ Slaughtering of all pigs in the contaminated area;
  - ◆ Containment of herds and control of all inputs;
  - ◆ Quarantine of farms within a 20 km radius;
  - ◆ Prohibition of all human and animal movements;
  - ◆ Disinfection of facilities and disinfestation of animals.



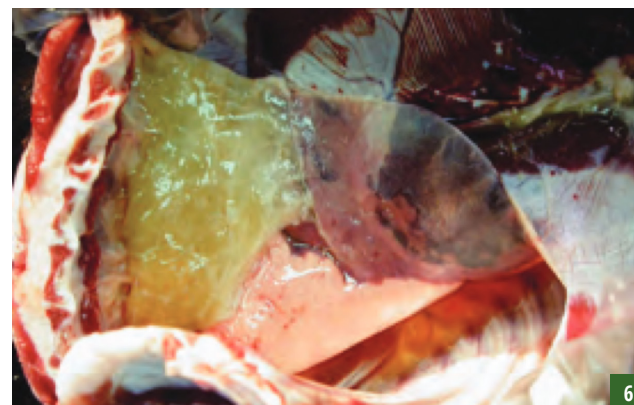
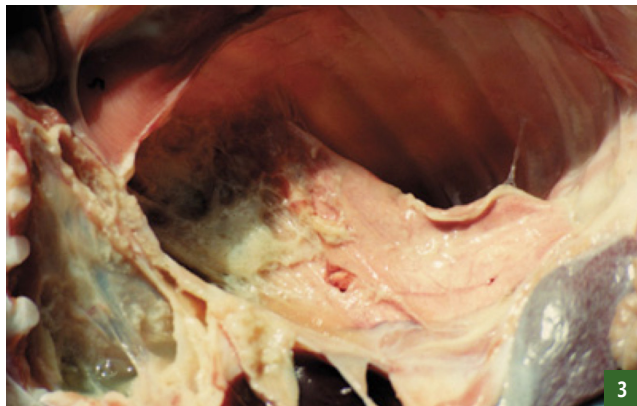
# CONTAGIOUS CAPRINE PLEUROPNEUMONIA

Non-zoonotic notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>Goats</li> </ul>		<ul style="list-style-type: none"> <li><u>General information</u>: Caprine contagious pleuropneumonia is a highly contagious bacterial infectious disease of goats</li> <li><u>Bacterium</u>: Member of the Mycoplasmataceae family, <i>Mycoplasma capricolum</i> is not resistant in the outdoor environment. Other strains of the same family may be implicated in this disease</li> <li><u>Incubation period</u>: 10 to 30 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>Violent coughing</li> <li>Mucopurulent nasal discharge (1)</li> <li>Accelerated and painful breathing: orthopneic position (2)</li> <li>High fever</li> <li>Abortions</li> <li>In the event of acute infection: very high morbidity and mortality up to 80% (sudden death)</li> </ul>	<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>Only one lung is affected</li> <li>Fibrinous pleuropneumonia (3, 4) with massive hepatitis and exudative pleurisy (5, 6)</li> </ul>	
	<ul style="list-style-type: none"> <li><u>Direct</u>: By absorption of nasal secretions or droplets breathed out into the air by the sick animal</li> </ul> <div style="text-align: center;"> </div>	
Samples	Treatment	
<ul style="list-style-type: none"> <li><u>Living animal</u>: Pleural fluid (5 ml), bronchoalveolar/nasal swabs, or serum</li> </ul>	<ul style="list-style-type: none"> <li><u>After autopsy</u>: Pleural fluid (5 ml), whole regional lymph nodes, lung fragments</li> </ul>	<ul style="list-style-type: none"> <li>Curative treatment can be based on TETRACYCLINE</li> </ul>





## *Specific recommendations and measures to be taken in the event of contagious caprine pleuropneumonia*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for nasal discharge, coughing and difficulty in breathing.

For the veterinary paraprofessional:

- ◆ Remind farmers of the importance of a quarantine period of at least 30 days for animals joining the herd;
- ◆ Keep a record of any suspicious lesions observed in the rib cage of a goat.

For the private and/or public veterinarian:

- ◆ Recommend the slaughter of animals with persistent coughing;
- ◆ Set up an annual vaccination program targeting all animals in a specific epidemiological and geographical area.

# THEILERIOSIS

*Non-zoonotic notifiable diseases*



Species concerned	Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Theileriosis is a non-contagious disease of cattle caused by the protozoan parasite <i>Theileria parva</i></li> <li>◆ <u>Parasite</u>: Member of the family Theileriidae, <i>Theileria parva</i> invades the erythrocytes of its host</li> <li>◆ <u>Incubation period</u>: 10 to 15 days</li> </ul>
Clinical signs	Transmission
<ul style="list-style-type: none"> <li>◆ Epistaxis (nosebleed) (2)</li> <li>◆ Ganglionic hypertrophy (generalized adenitis) (3)</li> <li>◆ Watery eyes, glassy eyes (4)</li> <li>◆ High fever</li> <li>◆ Pale mucous membranes</li> <li>◆ Dyspnea</li> <li>◆ Diarrhea</li> <li>◆ Cachexia (5)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Vector-borne, ticks of the genus <i>Rhipicephalus</i> (ex: <i>Rhipicephalus Sanguineus</i>, 1)</li> </ul> <div data-bbox="1400 783 1742 1011" style="text-align: center;"> </div>
Samples	Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Lymphatic node, blood with anticoagulant (Vacutainer 5ml), or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ Preventive treatment is acaricide</li> <li>◆ Curative treatment can be based on BUPARVAQUONE</li> </ul>



## *Specific recommendations and measures to be taken in the event of theileriosis*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for epistaxis, watery eyes and generalized adenitis;
- ◆ Destroy insect nests, clear the bushes.

For the veterinary paraprofessional:

- ◆ Oversee the implementation of the vector control program set up by the veterinarian;
- ◆ Find out the *Rhipicephalus* tick areas locations.

For the private and/or public veterinarian:

- ◆ Set up a vector control program (external disinfestation, destruction of insect nests, brush clearing, etc.);
- ◆ Map *Rhipicephalus* tick areas.

# BRUCELLOSIS

Zoonotic notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Swine</li> </ul>	<ul style="list-style-type: none"> <li>◆ Horses</li> <li>◆ Camelids</li> <li>◆ Humans</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Brucellosis is a highly contagious bacterial infectious disease of livestock</li> <li>◆ <u>Bacterium</u>: Members of the Brucellaceae family, <i>Brucella abortus</i> (cattle) and <i>Brucella melitensis</i> (small ruminants) are highly resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: From 1 to 30 days</li> </ul>
Clinical signs		Transmission
In animals	In humans	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact with a sick animal (especially through the mucous membranes, during mating) and/or absorption of any contaminated animal secretion and/or production (especially genital secretions, milk and abortions)</li> <li>◆ <u>Indirect</u>: Mechanically (litter, food, clothing, equipment...)</li> </ul>
<ul style="list-style-type: none"> <li>◆ Abortions (1, 2)</li> <li>◆ Infertility</li> <li>◆ Thickened and retained placenta (3, 4)</li> <li>◆ Swollen joints (5)</li> <li>◆ Swollen testicles (6)</li> <li>◆ Intermittent fever</li> </ul>	<ul style="list-style-type: none"> <li>◆ Intermittent fever</li> <li>◆ Back and joint pain</li> <li>◆ Weakness and lethargy</li> <li>◆ Swollen testicles</li> <li>◆ Infertility</li> <li>◆ Abortions</li> </ul>	
Samples	Treatment	
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Uterine, vaginal, or abortion fluids, lymph nodes, male and female reproductive organs, milk, or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ Curative treatment can be based on TETRACYCLINE</li> <li>◆ Depending on the case, it is recommended to favor slaughter over antibiotic care. Indeed, antibiotic care can lead to apparently healthy animals who still breath out infected secretions</li> <li>◆ Dead animals, placentas and runts must be buried deep and destroyed with quicklime</li> </ul>	

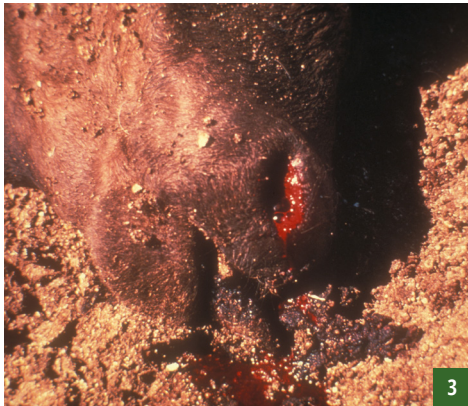


# ANTHRAX

Zoonotic notifiable diseases



Species concerned		Pathogenicity	
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Swine</li> </ul>	<ul style="list-style-type: none"> <li>◆ Horses</li> <li>◆ Camelids</li> <li>◆ Humans</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Anthrax is a lethal and virulent acute infectious disease</li> <li>◆ <u>Bacterium</u>: Member of the Bacillaceae family, <i>Bacillus anthracis</i> spreads extremely resistant spores in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 1 to 5 days</li> </ul>	
Clinical signs			Transmission
In animals		In humans	
<ul style="list-style-type: none"> <li>◆ Sudden death (almost sudden collapse) (1)</li> <li>◆ Tarry bleeding through all natural orifices (2,3,4)</li> <li>◆ Tremors, flabby limbs</li> <li>◆ Dyspnea</li> <li>◆ High fever</li> <li>◆ Drop in milk production (aqueous milk, tasteless)</li> <li>◆ High morbidity and mortality</li> </ul>	<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>◆ Big spleen</li> <li>◆ It is recommended not to perform an autopsy</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorption/inhalation of any secretion and/or animal production contaminated by spores (carcasses, blood, wool...)</li> <li>◆ <u>Indirect</u>: Mechanically (contaminated soil, litter, food, clothing, equipment...) and/or a vector that has been in contact with spores (insect)</li> </ul>	
Samples		Treatment	
<ul style="list-style-type: none"> <li>◆ <u>Living or dead animal</u>: Blood with anticoagulant (Vacutainer 5ml), edema puncture, spleen, or serum</li> </ul>		<ul style="list-style-type: none"> <li>◆ Curative treatment can be based on BENZYL PENICILLIN</li> <li>◆ Clinical progression is often so fast that there is no time to treat infected animals</li> <li>◆ Dead animals must be buried deep and destroyed with quicklime</li> </ul>	



## *Specific recommendations and measures to be taken in the event of anthrax*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for sudden deaths with tarry bleeding through all natural orifices;
- ◆ Look with the farmer for pastures roamed by sick animals in the previous days;
- ◆ Keep dogs away from the contaminated area;
- ◆ Recommend never eating or handling the meat and/or any other product of a dead animal;
- ◆ Enforce disinfection of vehicles, shoes, clothing and equipment with 1% caustic soda;
- ◆ Burn the carcasses on site or bury them at least 2 meters deep before destroying them with quicklime.

For the veterinary paraprofessional:

- ◆ Confine the herd, check the quarantine;
- ◆ Oversee the disinfection, slaughter and destruction of corpses.

For the private and/or public veterinarian:

- ◆ Set up the monitoring and the census of deaths;
- ◆ Map the affected and contaminated areas and pastures, condemn them;
- ◆ Set up annual vaccination campaigns.

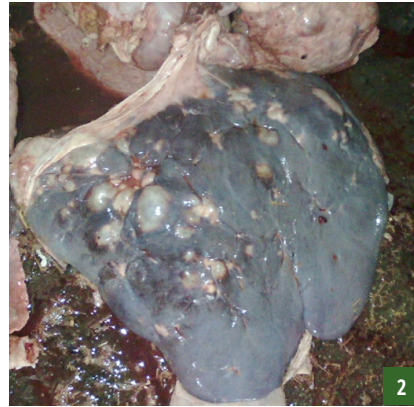
# ECHINOCOCCOSIS

Zoonotic notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>	<ul style="list-style-type: none"> <li>◆ Swine</li> <li>◆ Camelids</li> <li>◆ Humans</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Echinococcosis, also known as hydatidosis, is a disease caused by an infestation of the body by parasitic worms</li> <li>◆ <u>Parasite</u>: Member of the Taeniidae family, <i>Echinococcus granulosus</i> is a very small tapeworm that develops cysts mainly in the liver and lungs of its host</li> <li>◆ <u>Incubation period</u>: Variable, up to several years</li> </ul>
Clinical signs		Transmission
In animals		In humans
<ul style="list-style-type: none"> <li>◆ Mostly asymptomatic</li> <li>◆ Slight lethargy</li> <li>◆ Growth retardation</li> <li>◆ Drop in milk, meat and wool production</li> <li>◆ Decreased births</li> <li>◆ In rare cases, hydatid cyst rupture can lead to death</li> </ul>	<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>◆ Hydatid cysts mainly in the liver and lungs (1, 2, 3)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorption of any infested animal production (mainly meat and feces)</li> <li>◆ <i>Adult worms live and reproduce in the intestine of the final host (canine) and are released into the environment through the feces. The intermediate host accidentally ingests the eggs by eating contaminated food. It then develops hydatid cysts filled with larvae, which will be ingested again by the final host (4)</i></li> </ul>
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Fresh stools</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Liver, lung</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> <li>◆ Control measures are essentially based on the prevention and interruption of the parasite's life cycle. This requires preventing dogs' access to carcasses and slaughter remains, potentially treating them with an anthelmintic (PRAZIQUANTEL), complying with hygiene and cleaning/disinfection rules, inspecting offal and spotting any cyst</li> </ul>





## Specific recommendations and measures to be taken in the event of echinococcosis

For the CAHW:

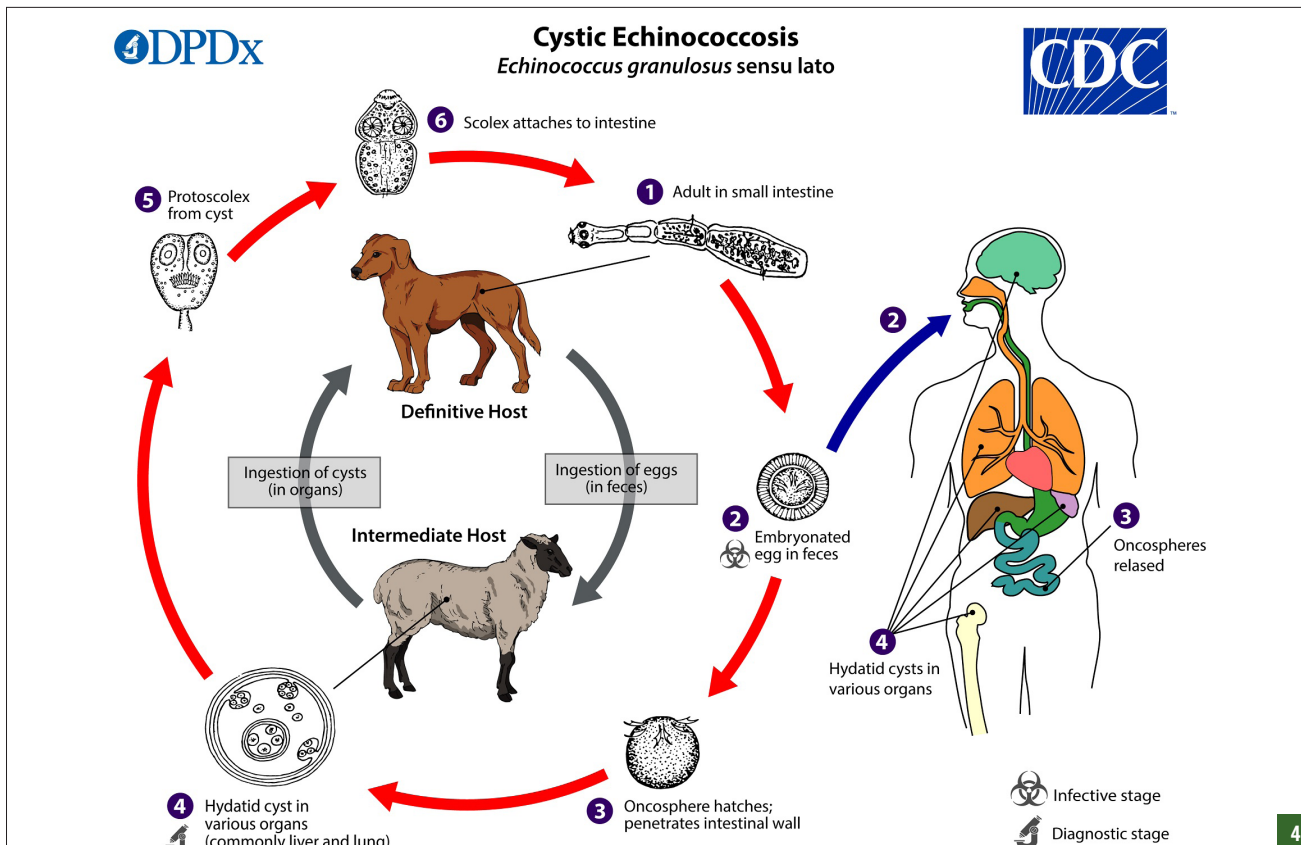
- ◆ Inspect all animals with the farmer looking for lethargy and drop in productions;
- ◆ Prevent dogs from accessing carcasses and slaughter remains, keep stray dogs away.

For the veterinary paraprofessional:

- ◆ Attend slaughter as regularly as possible to inspect offal and organs for hydatid cysts;
- ◆ Ensure the effective destruction of carcasses and offal.

For the private and/or public veterinarian:

- ◆ Set up an information campaign aimed at the populations of areas where the parasite is known to be present;
- ◆ Notify local doctors in the event of a positive diagnosis.



# RIFT VALLEY FEVER

Zoonotic notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>	<ul style="list-style-type: none"> <li>◆ Camelids</li> <li>◆ Humans</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Rift Valley fever is an acute viral disease characterized by a severe clinical picture with high morbidity and mortality</li> <li>◆ <u>Virus</u>: Member of the genus <i>Phlebovirus</i>, of the family Phenuiviridae, it is highly resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 1 to 6 days</li> </ul>
Clinical signs		Transmission
In animals	After autopsy	In humans
<ul style="list-style-type: none"> <li>◆ Abortions (1, 2)</li> <li>◆ High morbidity &amp; mortality (especially among young animals)</li> <li>◆ High fever, hyperthermia</li> <li>◆ Mucopurulent nasal discharge</li> <li>◆ Lethargy, anorexia</li> <li>◆ Bloody diarrhea (3), vomiting</li> <li>◆ Muscle spasms, locomotion disorders</li> <li>◆ Jaundice</li> </ul>	<ul style="list-style-type: none"> <li>◆ Necrotic hepatitis (4)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact and/or absorption of any contaminated animal secretion and/or production (blood, milk, meat...)</li> <li>◆ <u>Indirect</u>: Vector-borne (mosquitoes, main mode of transmission)</li> </ul>
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Plasma or serum on anti-coagulant (Vacutainer 5ml)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Liver, spleen, brain (+5 g), whole runt</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> <li>◆ Dead animals, runts and other abortion products must be buried deep and destroyed with quicklime</li> </ul>



1



2



3



4

## *Specific recommendations and measures to be taken in the event of Rift Valley fever*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for a high number of abortions and high mortality among young animals;
- ◆ Destroy mosquito nests, recommend the installation of mosquito nets.

For the veterinary paraprofessional:

- ◆ Confine the herd, check quarantine, census abortions;
- ◆ Oversee the disinfection, slaughter and destruction of corpses and abortions;
- ◆ Oversee the implementation of vector control, epidemiological surveillance and vaccination programs.

For the private and/or public veterinarian:

- ◆ Set up epidemiological surveillance;
- ◆ Set up a vector control program (external disinfection, destruction of mosquito nests, etc.);
- ◆ In the event of an epizootic: delimit the infected area and prohibit any movement. Set up a vaccination program around the area;
- ◆ Apart from epizootic: set up a vaccination program in and around the infected area, restrict movement.

# Q FEVER

Zoonotic notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Swine</li> </ul>	<ul style="list-style-type: none"> <li>◆ Camelids</li> <li>◆ Horses</li> <li>◆ Birds</li> <li>◆ Humans</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Q fever, also known as coxiellosis, is an extremely contagious bacterial infectious disease</li> <li>◆ <u>Bacterium</u>: Member of the family Coxiellaceae, <i>Coxiella burnetii</i> is highly resistant in the outdoor environment through pseudospores</li> <li>◆ <u>Incubation period</u>: 9 to 40 days</li> </ul>
Clinical signs		Transmission
In animals	In humans	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact and/or absorption of any contaminated animal secretion and/or production (especially amniotic fluid, placenta, abortions, milk, urine, feces...)</li> <li>◆ <u>Indirect</u>: Vector-borne (tick) and/or Mechanically (litter, food, clothing, equipment, dust...)</li> </ul>
<ul style="list-style-type: none"> <li>◆ Usually mild or asymptomatic</li> <li>◆ Possible abortions at all stages (1, 2)</li> <li>◆ Gynecological problems (metritis)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Influenza syndrome</li> <li>◆ In 50% of cases, high fever, headache, muscle aches, nausea, vomiting, chest pain, gastric discomfort</li> <li>◆ Possible complications: pneumonia, liver damage, meningitis, encephalitis...</li> </ul>	
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Uterine, vaginal, placental excretion fluids, abortion tissues (spleen, liver, stomach, lung), milk, colostrum, or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Uterine, vaginal, placental, placental excretion fluids, abortion tissues (spleen, liver, stomach, lung), milk, colostrum</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> <li>◆ Dead animals, runts and other abortion products must be buried deep and destroyed with quicklime</li> </ul>



# WEST NILE FEVER

Zoonotic notifiable diseases



Species concerned		Pathogenicity	
<ul style="list-style-type: none"> <li>◆ Horses</li> <li>◆ Birds</li> <li>◆ Humans</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: West Nile fever is an infectious viral vector-borne disease</li> <li>◆ <u>Virus</u>: Member of the genus <i>Flavivirus</i>, of the family Flaviviridae, it uses birds as its main reservoir</li> <li>◆ <u>Incubation period</u>: 3 to 6 days</li> </ul>	
Clinical signs		Transmission	
In animals	In humans	<ul style="list-style-type: none"> <li>◆ Indirect: Vector-borne (mosquitoes, mainly of the genus <i>Culex</i> - 1)</li> </ul>	
<ul style="list-style-type: none"> <li>◆ Weakness (2)</li> <li>◆ Ataxia, muscle contractions, convulsions, partial paralysis (3)</li> <li>◆ Loss of appetite, depression</li> <li>◆ Pressing the head one the floor (4)</li> <li>◆ Non-systematic fever</li> <li>◆ Teeth grinding</li> <li>◆ May develop into encephalomyelitis with high mortality rates</li> <li>◆ Usually asymptomatic in birds</li> </ul>	<ul style="list-style-type: none"> <li>◆ Influenza syndrome</li> <li>◆ In 1 to 15% of cases, high fever, headache, muscle aches, nausea, skin rash, abdominal pain</li> <li>◆ Possible complications: meningitis and/or encephalitis</li> <li>◆ Asymptomatic in 80% of cases</li> </ul>		
Samples		Treatment	
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Brain, spinal cord for horses; Kidney, heart, brain, liver, intestine for birds</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> </ul>	



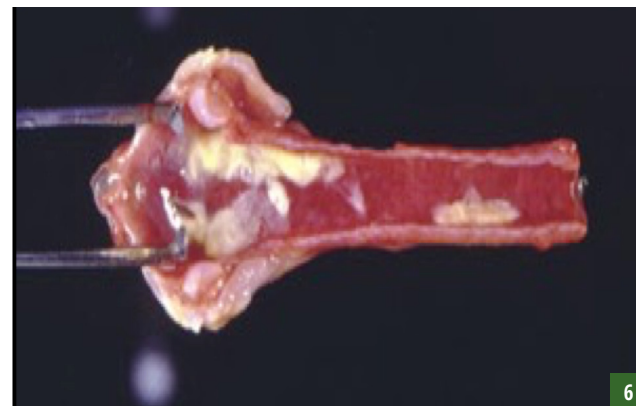
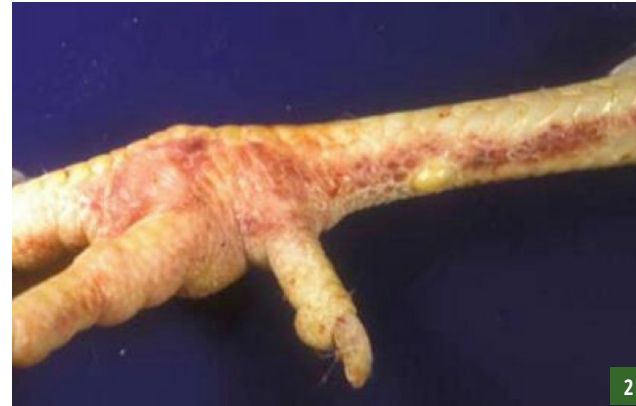
# AVIAN INFLUENZA

Zoonotic notifiable diseases



Species concerned		Pathogenicity	
<ul style="list-style-type: none"> <li>◆ All bird species</li> <li>◆ Swine</li> <li>◆ Humans</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Avian influenza, also known as bird flu or fowl plague, is a highly contagious viral disease</li> <li>◆ <u>Virus</u>: Member of the genus <i>Influenzavirus A</i>, of the family Orthomyxoviridae, it is highly resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 3 to 7 days</li> </ul>	
Clinical signs			Transmission
In animals		In humans	
<ul style="list-style-type: none"> <li>◆ General symptoms: depression, loss of appetite, lethargy (1)</li> <li>◆ Respiratory symptoms: dyspnea, nasal discharge, cough, sneezes, rales</li> <li>◆ Cutaneous symptoms: swollen and congested comb, caruncle and legs, bristly feathers (2, 3)</li> <li>◆ Digestive symptoms: diarrhea</li> <li>◆ Nervous symptoms: tremors, spasms</li> <li>◆ Sudden drop in egg-laying, egg anomaly (4)</li> <li>◆ Bleeding hocks</li> <li>◆ Sudden death (often very high mortality)</li> </ul>		<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>◆ Dark red, swollen, bleeding organs and muscles (305)</li> <li>◆ Bright red 5 with deposits (6)</li> <li>◆ Dehydrated carcass</li> </ul>	<ul style="list-style-type: none"> <li>◆ High fever</li> <li>◆ Headaches</li> <li>◆ Diarrhea</li> <li>◆ Muscle pain</li> <li>◆ Lethargy, anorexia</li> <li>◆ Dyspnea, sneezes, cough, nasal and eye discharges</li> <li>◆ Quickly progresses into severe respiratory disorders</li> <li>◆ Significant risk of death</li> </ul>
<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorption of any contaminated animal secretion and/or production (mainly fecal and respiratory)</li> <li>◆ <u>Indirect</u>: Mechanically (litter, food, clothing, equipment...)</li> </ul>			
Samples		Treatment	
<ul style="list-style-type: none"> <li>◆ <u>Living or dead animal</u>: Cloacal and tracheal swabs, feces, intestinal fragments, brain, trachea, lung, liver and spleen</li> </ul>		<ul style="list-style-type: none"> <li>◆ There is no specific treatment except symptomatic</li> <li>◆ Dead animals must be burned or buried deep and destroyed with quicklime</li> </ul>	





## *Specific recommendations and measures to be taken in the event of avian influenza*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for persistent mortality despite the application of treatment and/or vaccination measures for other diseases;
- ◆ Promote the use of footbaths, check their renewal and compliance with hygiene rules;
- ◆ Burn or bury dead animals 2 meters deep with quicklime.

For the veterinary paraprofessional:

- ◆ Prohibit any movement in the area;
- ◆ Advise emptying the buildings for at least 15 days between each raising batch of poultry.

For the private and/or public veterinarian:

- ◆ Set up information campaigns aimed at the population;
- ◆ Possibly set up a vaccination campaign.

# RABIES

Zoonotic notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ All mammals</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Rabies is a highly contagious viral disease that affects the nervous system of warm-blooded animals</li> <li>◆ <u>Virus</u>: Member of the genus <i>Lyssavirus</i>, of the Rhabdoviridae family, it is very resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 20 to 80 days, sometimes more (several years)</li> </ul>
Clinical signs		Transmission
In animals	In humans	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact and/or absorption of saliva from a contaminated animal (often by biting, sometimes by eating meat from an animal that has died of the disease)</li> </ul>
<ul style="list-style-type: none"> <li>◆ Nervous symptoms: behavioral disorders, aggressiveness (1), spasms, paralysis (2, 3), convulsions, hydrophobia</li> <li>◆ Hypersalivation (4)</li> <li>◆ High fever</li> <li>◆ Constipation</li> <li>◆ Loss of appetite</li> <li>◆ Rough mooing</li> <li>◆ Quick death after the symptoms show up</li> <li>◆ Two forms: furious form (strong aggressiveness, convulsions, progressive paralysis...) and paralytic form (abnormally docile animal, depressed, progressive paralysis...)</li> </ul>	<ul style="list-style-type: none"> <li>◆ High fever</li> <li>◆ Nervous symptoms: behavioral disorders, disorders of higher brain functions, anxiety, confusion, spasms, paralysis, convulsions, hydrophobia</li> <li>◆ Quick death after the symptoms show up</li> <li>◆ There are two forms of the disease (furious and paralytic)</li> </ul>	
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Brain biopsy</li> </ul>	<ul style="list-style-type: none"> <li>◆ There is no specific treatment</li> </ul>



# TRYPANOSOMIASIS

Zoonotic notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>	<ul style="list-style-type: none"> <li>◆ Horses</li> <li>◆ Camelids</li> <li>◆ Humans</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Trypanosomiasis is an infectious parasitic disease caused by flagellated protozoans</li> <li>◆ <u>Parasites</u>: Members of the Trypanosomatidae family, there are several species depending on the geographical areas and animals they infect (<i>T. brucei</i>, <i>T. congolense</i>, <i>T. vivax</i>...)</li> <li>◆ <u>Incubation period</u>: 8 to 20 days</li> </ul>
Clinical signs		Transmission
In animals	In humans	<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Vector-borne (tsetse flies - 1), horseflies, stable flies)</li> </ul>
<ul style="list-style-type: none"> <li>◆ Lymphadenopathy (2)</li> <li>◆ Anorexia, depression (3)</li> <li>◆ Pale mucous membranes (4)</li> <li>◆ Hyperthermia and high fever (intermittent)</li> <li>◆ Watery eyes (5)</li> <li>◆ Loss of appetite</li> <li>◆ Drop in milk production</li> <li>◆ Hair loss on the tail (6)</li> <li>◆ Coordination disorders</li> <li>◆ Sleep disorders (lately)</li> </ul>	<ul style="list-style-type: none"> <li>◆ High fever</li> <li>◆ Lymphadenopathy</li> <li>◆ Muscle and joint pain</li> <li>◆ Headaches</li> <li>◆ In its second phase, the disease causes neurological disorders (mental confusion, coordination and sleep disorders)</li> <li>◆ Lethal without treatment, it is better known as «sleeping sickness»</li> </ul>	
Samples	Treatment	
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (Vacutainer 5ml), lymph node puncture, or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ The preventive treatment is trypanocide</li> <li>◆ Curative treatment can be based on DIMINAZINE</li> </ul>	



## *Specific recommendations and measures to be taken in the event of trypanosomiasis*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for lymphadenopathy, anorexia and pale mucous membranes;
- ◆ Recognize vectors and advise farmers to avoid their areas of abundance.

For the veterinary paraprofessional:

- ◆ Set up fly traps, especially at water points;
- ◆ Check the measures taken to avoid areas of vector abundance.

For the private and/or public veterinarian:

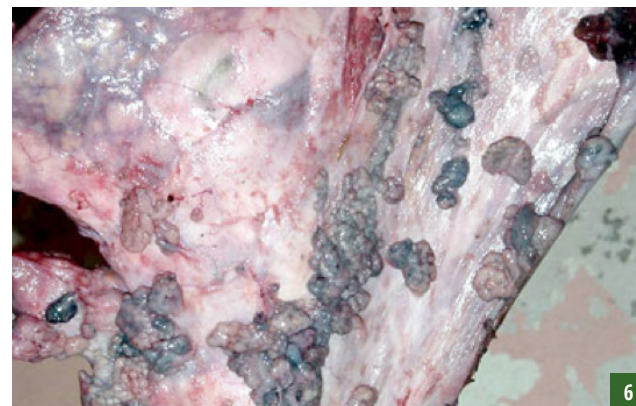
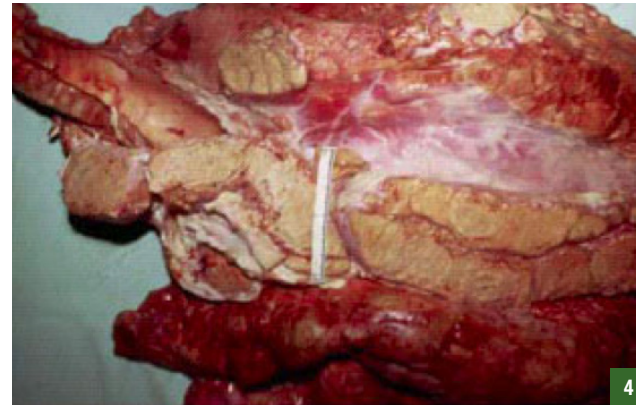
- ◆ Set up preventive and/or curative treatment campaigns according to the areas.

# BOVINE TUBERCULOSIS

Zoonotic notifiable diseases



Species concerned		Pathogenicity	
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Swine</li> </ul>	<ul style="list-style-type: none"> <li>◆ Horses</li> <li>◆ Camelids</li> <li>◆ Humans</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Bovine tuberculosis is a highly contagious and chronic bacterial infectious disease that does not only affect cattle</li> <li>◆ <u>Bacterium</u>: Member of the Mycobacteriaceae family, <i>Mycobacterium bovis</i> is not resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: Variable, several months to several years</li> </ul>	
Clinical signs			Transmission
In animals		In humans	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorbing nasal secretions or droplets breathed out into the air by the sick animal, and/or by consuming raw milk or undercooked meat</li> </ul>
<ul style="list-style-type: none"> <li>◆ Intermittent dry coughing (1)</li> <li>◆ Lymphadenopathy (2)</li> <li>◆ Anorexia (3)</li> <li>◆ Intermittent fever</li> <li>◆ Diarrhea</li> <li>◆ Slowly progressing disease</li> <li>◆ Can remain asymptomatic</li> </ul>	<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>◆ Caseous necrosis of tracheobronchial and mediastinal lymph nodes (4)</li> <li>◆ Nodules in mesenteric lymph nodes (5)</li> <li>◆ Lung lesions (6)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Fever</li> <li>◆ Coughing with sputum (sometimes with blood)</li> <li>◆ Headaches</li> <li>◆ Pain in the chest and joints</li> <li>◆ Loss of appetite, tiredness, anorexia</li> </ul>	
Samples		Treatment	
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (Vacutainer 5ml)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Blood with anticoagulant (Vacutainer 5ml), lung fragment, lymph node, spleen</li> </ul>	<ul style="list-style-type: none"> <li>◆ For all forms of tuberculosis, treatment is first based on antibiotics that must be taken over a long period of time (several months)</li> <li>◆ Treatment and/or slaughter should be considered and adapted according to the legislation of the country</li> </ul>	



## *Specific recommendations and measures to be taken in the event of tuberculosis*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for persistent cough, lymphadenopathy and leanness;
- ◆ Remind farmers of the need to boil milk and cook meat properly.

For the veterinary paraprofessional:

- ◆ Participate in screening campaigns;
- ◆ Inspect carcasses during slaughter.

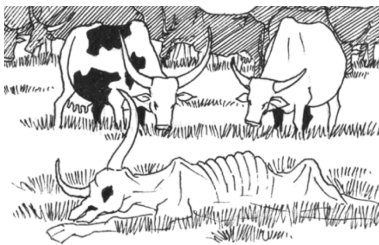
For the private and/or public veterinarian:

- ◆ Set up screening campaigns in suspicious farms;
- ◆ Conduct a tuberculin test on any newcomer.

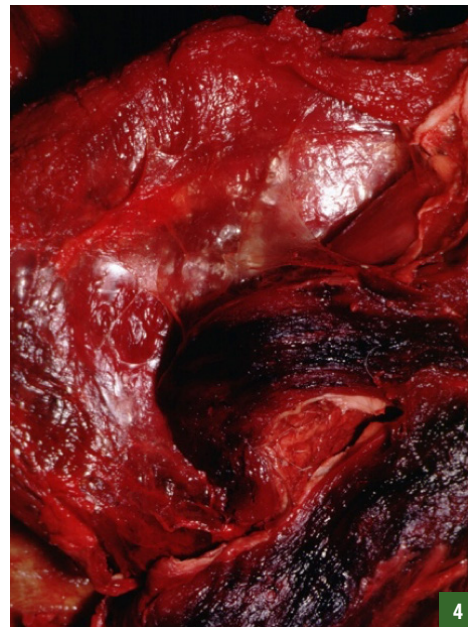
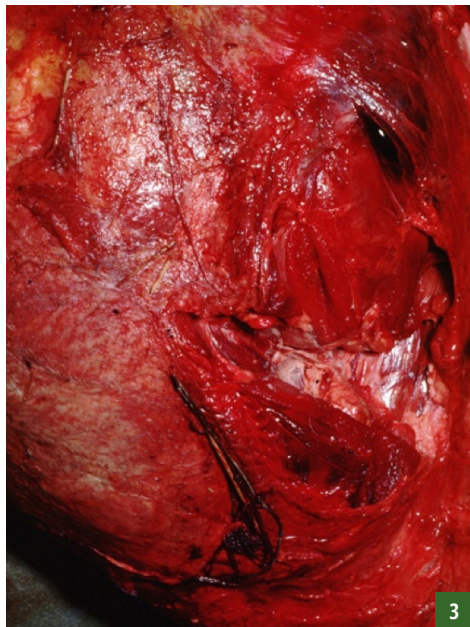
# BLACKLEG

Non-notifiable diseases



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Swine</li> <li>◆ Horses</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Blackleg is an acute infectious disease of livestock</li> <li>◆ <u>Bacterium</u>: Member of the Clostridiaceae family, <i>Clostridium chauvoei</i> produces highly resistant spores in the outdoor environment</li> <li>◆ <u>Incubation period</u>: De 2 to 5 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Sudden death (1)</li> <li>◆ Sudden lameness</li> <li>◆ Swollen shoulder or hip with crepitus on palpation (2)</li> <li>◆ High fever</li> <li>◆ Loss of appetite</li> </ul>	After autopsy	<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Mechanically (contaminated soils, litter, food, clothing, equipment...)</li> </ul> 
	<ul style="list-style-type: none"> <li>◆ Swollen muscle, black blood clots (3)</li> <li>◆ Dark muscle with gas (4)</li> <li>◆ It is recommended not to perform an autopsy</li> </ul>	
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living or dead animal</u>: Muscle sample (at least 10*10*10 cm)</li> </ul>		<ul style="list-style-type: none"> <li>◆ Curative treatment can be based on BENZYL PENICILLIN</li> <li>◆ Clinical progression is often so fast that there is no time to treat infected animals</li> <li>◆ Dead animals must be buried deep and destroyed with quicklime</li> </ul>





## *Specific recommendations and measures to be taken in the event of blackleg*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for sudden deaths and crepitus under the skin;
- ◆ Look with the farmer for pastures roamed by sick animals in the previous days;
- ◆ Burn the carcasses on site or bury them at least 2 meters deep after destroying them with quicklime.

For the veterinary paraprofessional:

- ◆ Confine the herd, check the quarantine;
- ◆ Oversee the disinfection, slaughter and destruction of corpses.

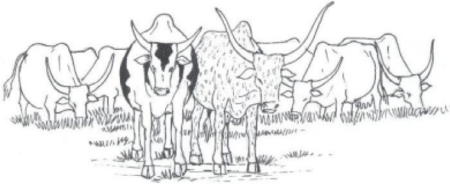
For the private and/or public veterinarian:

- ◆ Set up the monitoring and the census of deaths;
- ◆ Map the affected and contaminated areas and pastures, condemn them;
- ◆ Set up annual vaccination campaigns.

# DERMATOPHILOSIS

*Non-notifiable diseases*



Species concerned	Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Horses</li> <li>◆ Camelids</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Dermatophilosis is a bacterial skin disease</li> <li>◆ <u>Bacterium</u>: Member of the Dermatophilaceae family, <i>Dermatophilus congolensis</i> affects the epidermis of the animals it infects. It is highly resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 15 to 30 days</li> </ul>
Clinical signs	Transmission
<ul style="list-style-type: none"> <li>◆ Skin lesions with serous exudate, without itching (1, 2)</li> <li>◆ Yellowish, thick scabs (3)</li> <li>◆ Skin detachments (4)</li> <li>◆ Bristly hair</li> <li>◆ Lethargy</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact (friction) with a sick animal</li> <li>◆ <u>Indirect</u>: Vector-borne (flies, horseflies, ticks, mites...) and/or Mechanically (contaminated soil, litter, food, clothing, equipment...)</li> </ul> <div style="text-align: center; margin-top: 20px;">  </div>
Samples	Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Fresh scabs, skin with lesion, or serum</li> </ul>	<ul style="list-style-type: none"> <li>◆ Preventive treatment is acaricide</li> <li>◆ Curative treatment can be based on CHLORHEXIDINE and TETRACYCLINE</li> </ul>



1



2



3



4

## *Specific recommendations and measures to be taken in the event of dermatophilosis*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for itch-free scabbed skin lesions with bristly hair;
- ◆ Isolate suspicious animals;
- ◆ Destroy insect nests, clear the bushes.

For the veterinary paraprofessional:

- ◆ Oversee the implementation of the vector control program set up by the veterinarian;
- ◆ Check the containment of sick animals.

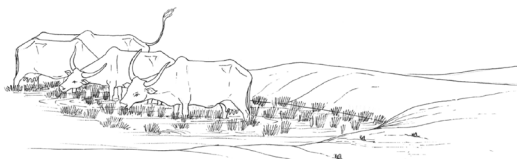
For the private and/or public veterinarian:

- ◆ Set up a vector control program (external disinfestation, destruction of insect nests, brush clearing, etc.);
- ◆ Remind the necessity for preventive vector control.

# FASCIOSIS

*Non-notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Horses</li> <li>◆ Camelids</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Fasciolosis is a parasitic worm infection of the liver</li> <li>◆ <u>Parasite</u>: Member of the Fasciolidae family, <i>Fasciola hepatica</i> (liver fluke) is a large flatworm that feeds on liver tissue</li> <li>◆ <u>Incubation period</u>: 6 to 60 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Pale mucous membranes</li> <li>◆ Diarrhea</li> <li>◆ Bottle jaw (7)</li> <li>◆ Loss of appetite, anorexia, lethargy</li> <li>◆ Drop in milk production</li> </ul>	After autopsy	<ul style="list-style-type: none"> <li>◆ <u>Indirect</u>: Mechanically (pastures and swampy areas contaminated by parasite larvae)</li> </ul> 
	<ul style="list-style-type: none"> <li>◆ Hard and greyish liver when cut (2)</li> <li>◆ Thickened bile ducts (3)</li> <li>◆ Adult flukes (4)</li> </ul>	
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Fresh stools</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Bile ducts</li> </ul>	<ul style="list-style-type: none"> <li>◆ Curative treatment can be based on ALBENDAZOLE or NITROXINIL</li> </ul>



## *Specific recommendations and measures to be taken in the event of fasciolosis*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for pale mucous membranes, loss of appetite and swollen throats;
- ◆ Advise farmers to avoid herd gatherings in wetlands and water points.

For the veterinary paraprofessional:

- ◆ Train CAHWs in the proper practice of treatments chosen by the veterinarian.

For the private and/or public veterinarian:

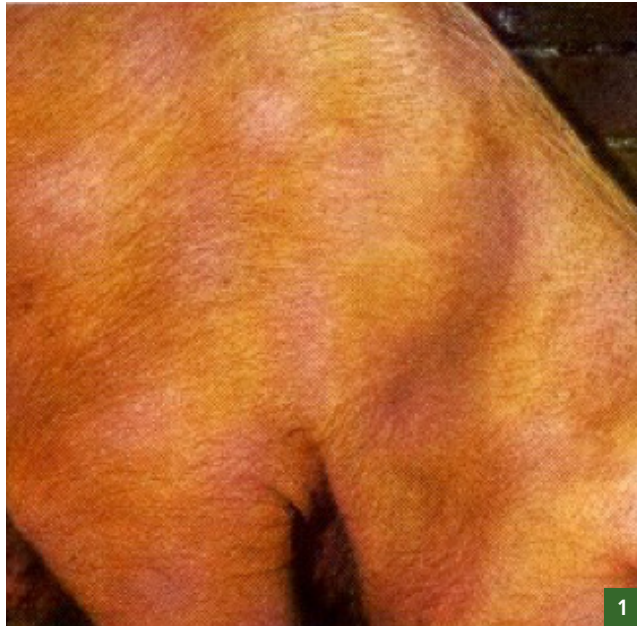
- ◆ Assess the appropriate treatment to be implemented according to the situation, considering possible resistances.

# SCABIES

*Non-notifiable diseases*



Species concerned	Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Swine</li> <li>◆ Horses</li> <li>◆ Camelids</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Scabies are parasitic skin diseases caused by mites</li> <li>◆ <u>Parasites</u>: Many species of mites, members of the order Sarcoptiformes, are responsible for scabies</li> <li>◆ <u>Incubation period</u>: 20 to 40 days</li> </ul>
Clinical signs	Transmission
<ul style="list-style-type: none"> <li>◆ Hair loss (1)</li> <li>◆ Itching (the animal scratches against trees and/or equipment)</li> <li>◆ Red, thickened, cracked skin (2, 3)</li> <li>◆ Lethargy</li> <li>◆ Drop in milk production</li> <li>◆ Usually starts on the head and neck and extends to the hind legs (4)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By contact (friction) with a sick animal</li> <li>◆ <u>Indirect</u>: Mechanically (trees or equipment on which sick animals have rubbed)</li> </ul> <div style="text-align: center; margin-top: 20px;"> </div>
Samples	Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Skin scrapings</li> </ul>	<ul style="list-style-type: none"> <li>◆ Preventive treatment is acaricide</li> <li>◆ Curative treatment can be based on IVERMECTIN</li> </ul>



## *Specific recommendations and measures to be taken in the event of scabies*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for hair loss, itching and thickened skin;
- ◆ Isolate suspicious animals;
- ◆ Destroy insect nests, clear the bushes.

For the veterinary paraprofessional:

- ◆ Oversee the implementation of the vector control program set up by the veterinarian;
- ◆ Check the containment of sick animals.

For the private and/or public veterinarian:

- ◆ Set up a vector control program (external disinfestation, destruction of insect nests, brush clearing, etc.);
- ◆ Remind the necessity for preventive vector control.

# PASTEURELLOSIS

*Non-notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> <li>◆ Camelids</li> </ul>		<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Pasteurellosis is a highly contagious bacterial infectious disease</li> <li>◆ <u>Bacterium</u>: Member of the family Pasteurellaceae, <i>Mannheimia haemolytica</i> (formerly called <i>Pasteurella haemolytica</i>) is poorly resistant in the outdoor environment</li> <li>◆ <u>Incubation period</u>: 7 to 10 days</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Mucopurulent nasal discharge (1)</li> <li>◆ Difficult and noisy breathing</li> <li>◆ Sudden death</li> <li>◆ High fever</li> <li>◆ Sudden drop in milk production</li> <li>◆ Swollen throat and tongue hanging out of the mouth (2)</li> <li>◆ Abundant diarrhea</li> <li>◆ Mainly during the wet season and during stress (transport...)</li> <li>◆ In young animals: sepsis and shock</li> </ul>	<p style="text-align: center;"><b>After autopsy</b></p> <ul style="list-style-type: none"> <li>◆ Very red stomach mucous membranes (3)</li> <li>◆ Very red lungs (4)</li> <li>◆ Dark lungs with thick streaks (5)</li> <li>◆ Thickened throat with yellowish liquid (6)</li> <li>◆ Thoracic hemorrhages (7)</li> <li>◆ Hemorrhages on the carcass (8)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorption of nasal secretions or droplets breathed out into the air by the sick animal</li> </ul> <div style="text-align: center;"> </div>
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Blood with anticoagulant (vacutainer 5ml)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Blood with anticoagulant, long bone, lung fragment</li> </ul>	<ul style="list-style-type: none"> <li>◆ Curative treatment can be based on TETRACYCLINE</li> </ul>

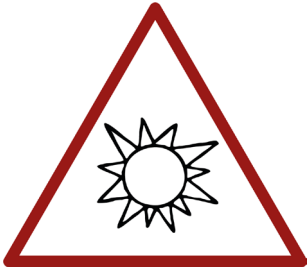




# PHOTOSENSITIZATION

*Non-notifiable diseases*



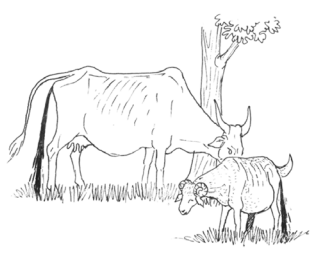
Species concerned	Pathogenicity
<ul style="list-style-type: none"><li>◆ Cattle</li><li>◆ Sheep</li><li>◆ Goats</li><li>◆ Horses</li></ul>	<ul style="list-style-type: none"><li>◆ <u>General information</u>: Photosensitization is an inflammatory hypersensitivity of the skin to sunlight. It can be congenital, or it can occur after the absorption of photosensitizing chemical agents. This disease mainly affects animals with light skin and insufficient coat coverage</li></ul>
Clinical signs	Principe
<ul style="list-style-type: none"><li>◆ <b>Skin lesions</b>: Redness, burning, swelling, depilation, cracked skin (1, 2)</li><li>◆ Fever</li><li>◆ Leanness</li><li>◆ Jaundice</li></ul>	<ul style="list-style-type: none"><li>◆ <b>Acquired photosensitization</b>:<ul style="list-style-type: none"><li>• A photodynamic agent is absorbed, ingested or injected and goes to the peripheral bloodstream (blood vessels of the skin)</li><li>• Type I: Direct, the agent (drug, plant, internal substance) is itself photosensitizing</li><li>• Type II: Indirect, the agent has hepatotoxic properties and leads to the release of photosensitizing chemicals by the liver</li></ul></li><li>◆ <b>Innate photosensitization</b>:<ul style="list-style-type: none"><li>• Genetic anomaly that affects pigmentation (albinism)</li></ul></li></ul>
Samples	
<ul style="list-style-type: none"><li>◆ Local wound care</li><li>◆ Keep the animals away from the sun</li><li>◆ Remove the source of the photosensitizing agent</li></ul>	



# INTESTINAL WORMS

*Non-notifiable diseases*



Species concerned		Pathogenicity
<ul style="list-style-type: none"> <li>◆ Cattle</li> <li>◆ Sheep</li> <li>◆ Goats</li> </ul>	<ul style="list-style-type: none"> <li>◆ Swine</li> <li>◆ Horses</li> <li>◆ Camelids</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>General information</u>: Intestinal worms are parasites that can cause severe infestations in their hosts</li> <li>◆ <u>Parasites</u>: Many parasitic worm species are responsible for intestinal infestations</li> <li>◆ <u>Incubation period</u>: Variable, in a range of 3 to 4 weeks</li> </ul>
Clinical signs		Transmission
<ul style="list-style-type: none"> <li>◆ Diarrhea (1)</li> <li>◆ Anorexia (2)</li> <li>◆ Bottle jaw (3, 4)</li> <li>◆ Swollen abdomen</li> <li>◆ Growth retardation</li> <li>◆ Drop in milk production</li> <li>◆ Spiky hair</li> <li>◆ Pale mucous membranes</li> </ul>	<b>After autopsy</b>	<ul style="list-style-type: none"> <li>◆ <u>Direct</u>: By absorbing or licking materials contaminated by the excreta (containing eggs) of infected animals</li> </ul> 
	<ul style="list-style-type: none"> <li>◆ Pale carcass with wet appearance (5)</li> <li>◆ Worms in the rumen (6)</li> </ul>	
Samples		Treatment
<ul style="list-style-type: none"> <li>◆ <u>Living animal</u>: Fresh stools</li> </ul>	<ul style="list-style-type: none"> <li>◆ <u>After autopsy</u>: Fresh stools</li> </ul>	<ul style="list-style-type: none"> <li>◆ The preventive and curative treatment is anthelmintic (deworming)</li> </ul>



## *Specific recommendations and measures to be taken in the event of intestinal worms*

For the CAHW:

- ◆ Inspect all animals with the farmer looking for diarrhea, leanness and bottle jaw;
- ◆ Recommend avoiding large concentrations of animals in wetlands.

For the veterinary paraprofessional:

- ◆ Carry out coprological sampling before and after deworming;
- ◆ Oversee the implementation of deworming campaigns.

For the private and/or public veterinarian:

- ◆ Train veterinary paraprofessionals and CAHWs in the proper use of anti-worm drugs;
- ◆ Set up deworming campaigns at the beginning of the dry season and the rainy season.