



# Training Module No 7

## Theory

1. External parasites
2. Ticks
3. Heartwater
4. Hoof problems




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# External parasites

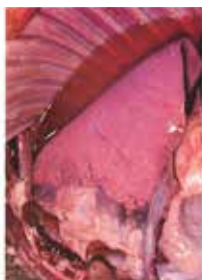
External parasites affecting goats are mainly ticks and mange mites. Other examples would include mosquitos and flies (especially blowflies). Some external parasites cause skin irritation and tissue damage while others also transmit diseases to the goat.

## Ticks

Description	Life cycle	Treatment/management
<p>Besides the physical damage caused by ticks, they also transmit a number of diseases. In goats the most serious tick-borne disease is heartwater. Tick-borne diseases are specific to a certain type of tick. For example, heartwater is only transmitted by bont ticks. Ticks can be controlled by insecticides that can be put on in different ways. Spraying is the most common way, or less common is either dipping the goat (in a plunge dip or with a bucket and sponge), applying a pour-on product onto the animal's back or by injecting it with a registered product (such as an ivermectin).</p> <p>Remember that dips are poisonous so you should make sure that you use gloves and protective clothing to prevent skin contact as you can actually absorb the dip directly through your skin.</p> 	<p>Ticks can have 1 or 3 hosts</p> <p>Bont ticks are a particular problem for goats as they carry heartwater and can cause abscesses and lameness. Read more about abscesses in Section 8.1</p>	<p>The most effective control of ticks is a dip either through injecting, wetting, immersing or through an injectable.</p> <p>Other methods are through insecticide mixed with grease on heavily infested areas.</p>


## Heartwater – treat with tetracycline

Symptoms	Prevention	Treatment	Blocking against heartwater
<p><b>The live animal:</b> The organisms that cause heartwater are transmitted by Bont ticks, which are mainly found in hot, dry bush areas. Heartwater can result in death within 24 hours, but some cases survive 2 to 5 days.</p> <p>Affected goats have a very high temperature and show nervous signs: high stepping jerky gait, shivering, walking in circles. Later, jerky, paddling movements with the legs and the head pulled backwards when the animal goes down.</p> <p><b>The dead animal</b> will have excessive fluid in the heart sac, lungs, chest cavity and abdominal cavity.</p>	<p>To prevent heartwater, try to maintain the animals' immunity by letting a small number of ticks stay on the animals all the time. However, when there are visibly many ticks on the goats, dipping about once a month may be necessary.</p> <p>Goats that have grown up in a heartwater area are more resistant to the disease</p> <p>If an animal dies of heartwater, dip it to kill the ticks on its body. The ticks are infected with heartwater and will infect other animals if they bite them.</p> <p>Vaccination against heartwater is possible but it is complicated and expensive, speak to your veterinarian about this.</p>	<p>Treat the animal early before nervous symptoms show.</p> <p>Use short-acting Terramycin for three days in a row, or new drug Doxycycline. Use an intravenous injection if you can, otherwise intramuscular.</p> <p><b>Dosage rates:</b> Adult goats inject 5cc daily for 3 days (intramuscular injection). For a kid give 2.5cc daily for 3 days.</p> <p>Note: Dosage rates will vary depending on the make of the injection that you buy.</p>	<p>This is a method used to prevent deaths due to Heartwater. The disease has an incubation period of 14-28 days, with a mean of 18 days. If you vaccinate goats with Heartwater (i.e. infect them), and you are not able to take their temperature daily and treat them when they have a raised temperature, you can block them on day 13 after vaccination, while they are still incubating the disease and not yet showing symptoms. You inject them with a long acting oxytetracycline at the correct dose based on their weight. Alternatively: treat animals that are new to a heartwater area every 7 days for 3 weeks (i.e. day 7, day 14 and day 21 after entry to the area).</p>




# Hoof problems


## Limping associated with abscesses

Description	Prevention	Treatment
 <p>These are often caused by ticks or wounds from thorns between the claws of the hoof. Swelling in the foot is hot, red and painful. Sometimes abscesses burst open and ooze pus.</p>	<p>Do not leave goats standing in water or mud for a long time.</p> <p>Dip the feet to kill ticks.</p> <p>Regularly check your goats' feet for ticks, especially ones that are limping.</p> <p>Clean overnight kraals/ facilities monthly.</p>	<p>Open and drain the abscess when it has a yellow spot on it or when it softens.</p> <p>Apply dip to kill the ticks.</p> <p>Use a boiled razor blade to cut the abscess. Then syringe/ pour warm boiled water with a lot of salt in it (1 tablespoon of salt in a cup of water) or iodine into the wound.</p> <p>Spray daily with a wound aerosol such as <b>Woundsept Plus</b> or iodine. Keep the wound open to allow it to drain.</p> <p>Bury or burn the material used to wipe the pus. This can infect other animals and people. Always boil the razor blade before using it.</p> <p>Treat with a long-acting oxytetracycline such as <b>Terramycin</b> (1 ml/10kg) in bad cases.</p>

## Footrot

Description	Prevention	Treatment
 <p>This is a bacterial infection that normally affects goats kept on pastures or under intensive conditions. It spreads easily between goats.</p>	<p>Prevent footrot by keeping sheds clean and by using a monthly footbath containing 10% zinc sulphate solution. The goats must be made to stand in the footbath for a period of 5 minutes.</p> <p>Keep affected goats separate from the rest of the flock to prevent spread of infection.</p> <p>Clip hooves.</p>	<p>If an animal has footrot, inject it with an antibiotic such as <b>Terramycin</b> to treat the footrot and apply an iodine spray to the hoofs (between the claws).</p>

## Excessive hoof growth

Description	Prevention	Treatment
<p>If goats are on pastures or in sandy areas where there are few rocks, their hooves may become overgrown.</p> 	<p>Overgrown hooves need trimming.</p>	<p>If hooves are overgrown they affect the goat's ability to walk and look for food so they should be trimmed. See section on <i>hoof trimming below</i>.</p>

## Trimming hooves






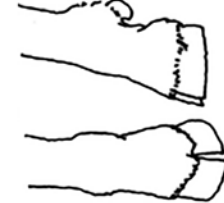
In areas where there are not a lot of rocks, goats' hooves often get overgrown and need to be trimmed. This ensures that they can walk properly when they go looking for feed.



*Lay the goat down so you can trim the hooves properly. Do not lie heavily pregnant goats down. Pick their feet up one by one while they are standing.*



*Use hoof shears to trim off excessive hoof growth.*

<p>1.</p>  <p>Dig dirt out from toes</p>	<p>2.</p>  <p>Trim all loose, excess nail parallel to hoof hairline</p>	<p>3.</p>  <p>Pare heels to same level as toes</p>
<p>4.</p>  <p>Snip away the little flap that grows between the toes</p>	<p>5.</p>  <p>Pare the soft heel tissue until the hoof surface is smooth and flat</p>	<p>6.</p>  <p>The finished hooves</p>