

## SECTION III: Improved housing of small ruminants

### 1. GENERAL INTRODUCTION

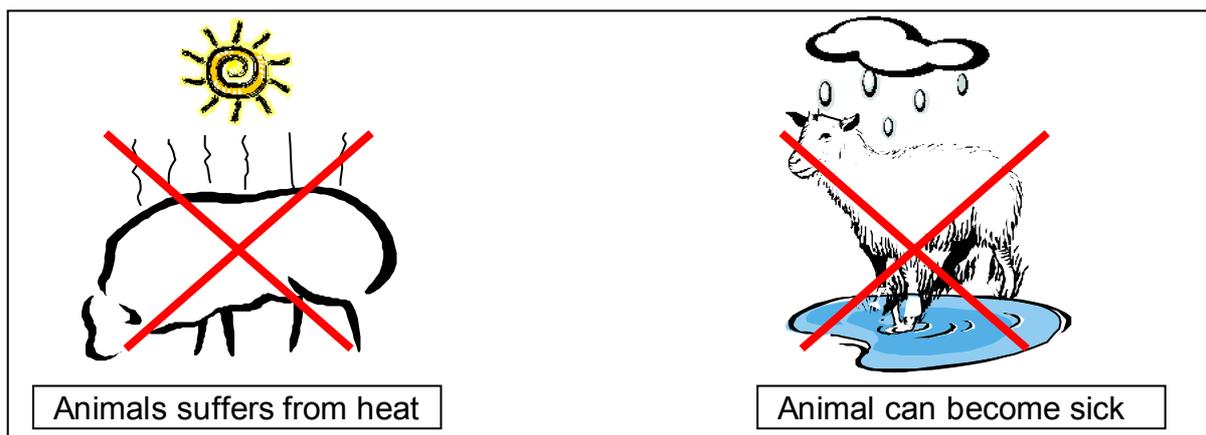
In this section temporary housing of small ruminants will be discussed. By temporary housing we mean that the animals are only kept there during the night and a part of the day. The animals are also housed in groups, although it is recommended to provide separate housing for sick and recovering animals.

Housing of small ruminants has to:

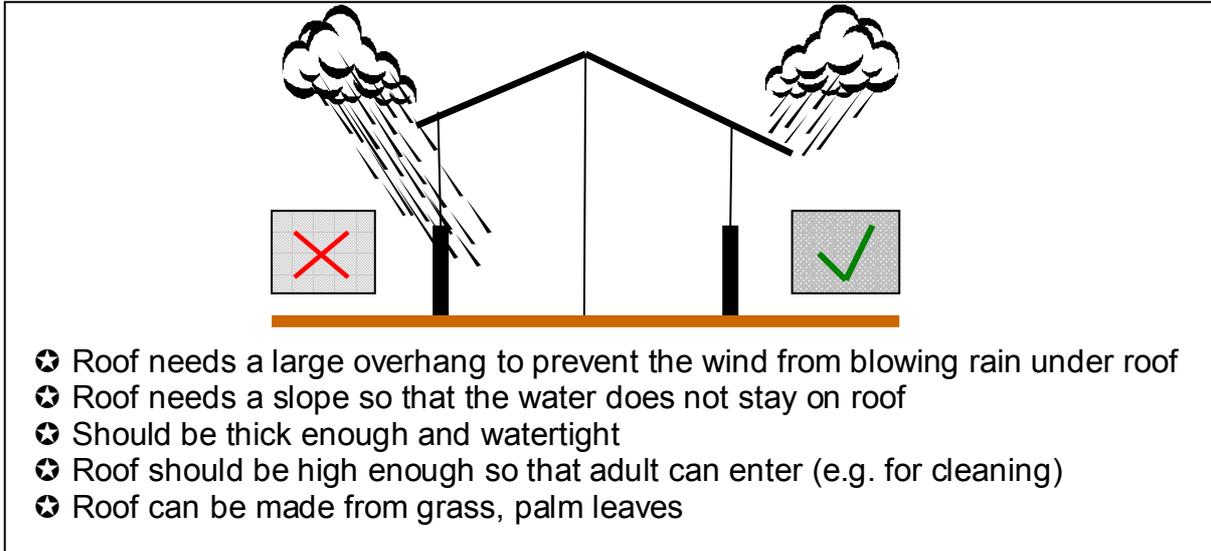
- ✧ *Protect them from rain and humidity (start construction or repairs well before the rains start!)*
- ✧ *Protect them from wind*
- ✧ *Protect them from the sun and heat*
- ✧ *Be clean so that diseases can be prevented*
- ✧ *Be close to the compound to prevent theft and predators*
- ✧ *Be close to the compound so that farmers have control over sick and pregnant animals*
- ✧ *Be large enough to protect all the animals*

### 2. ROOF

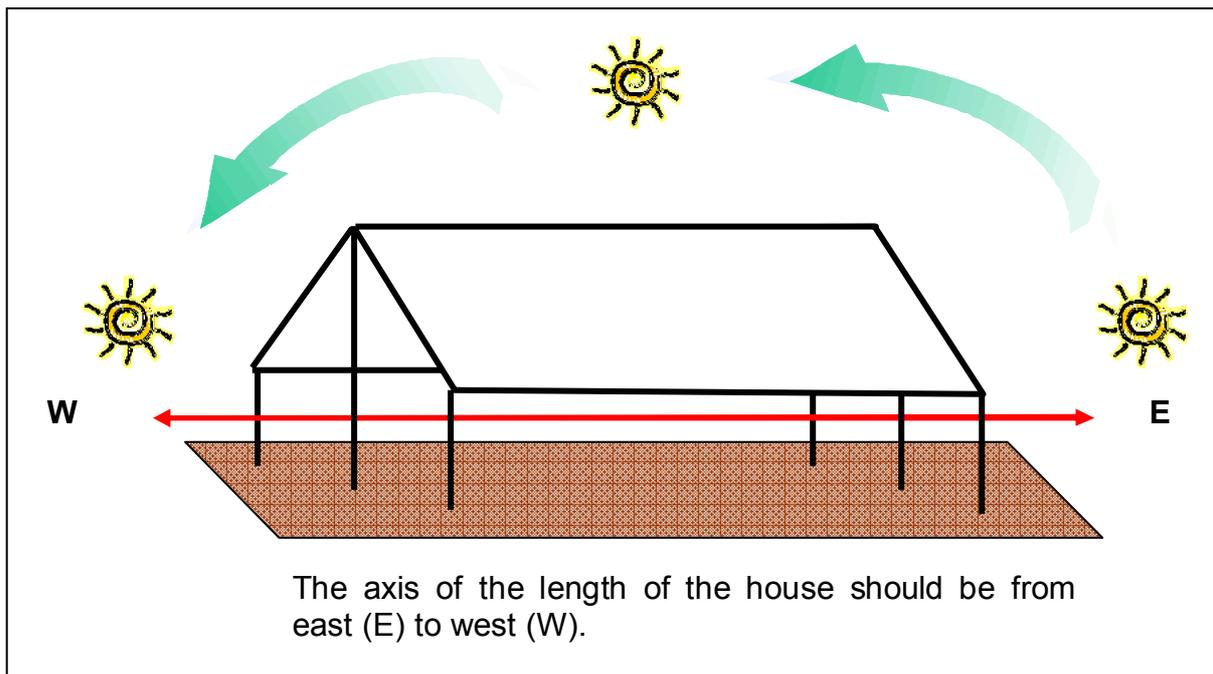
#### A. Protection from sun and rain



## B. Construction of roof



## C. Orientation of the house

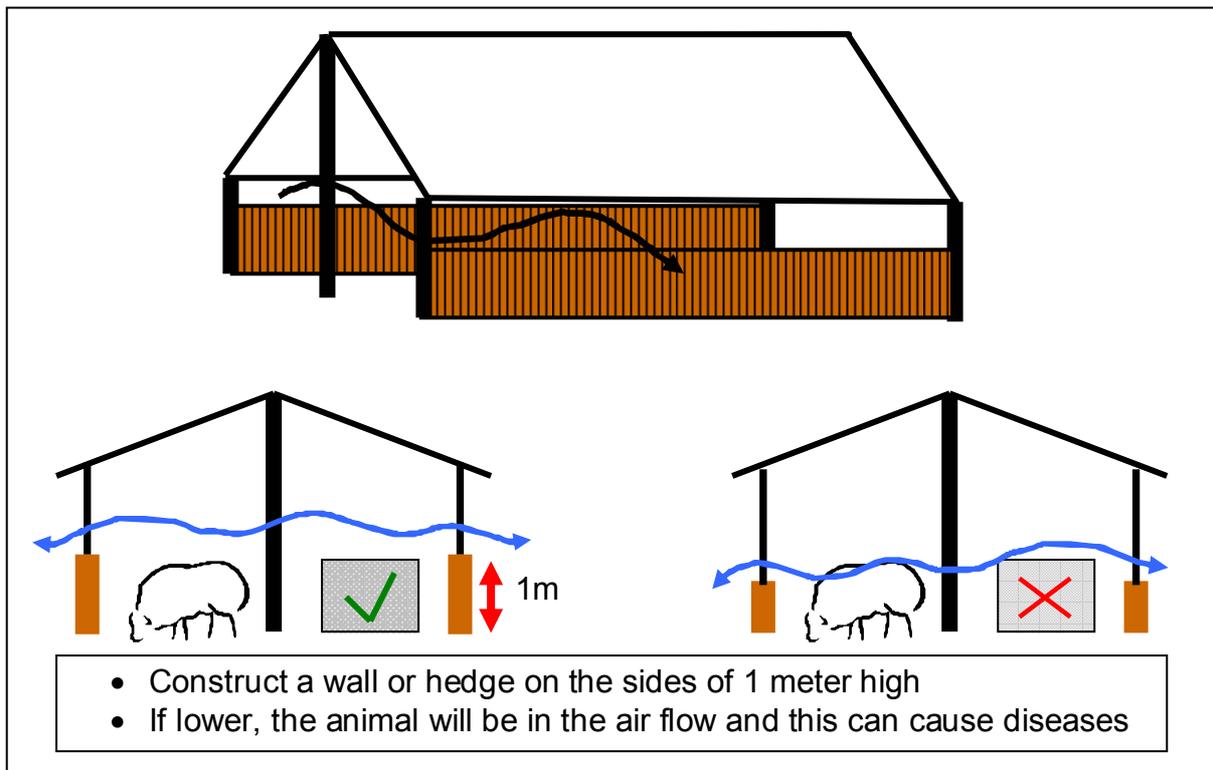


### **3. VENTILATION**

#### **A. Why need for good ventilation?**

- ✪ Reducing respiratory diseases
- ✪ Getting rid of ammonia vapours (urine smell)
- ✪ Reducing humidity
- ✪ Cooling down the animal house

#### **B. Construction of house**



### **4. FLOOR**

#### **A. Why need for good floor?**

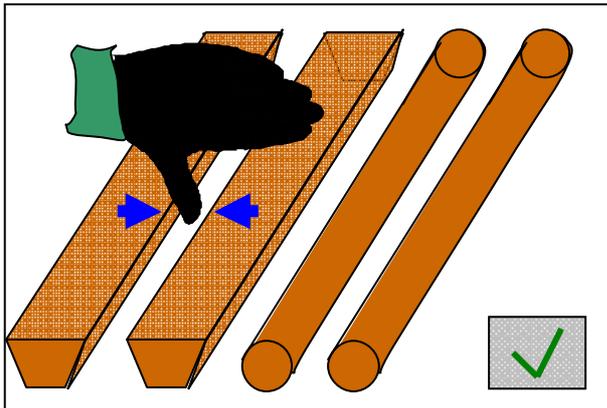
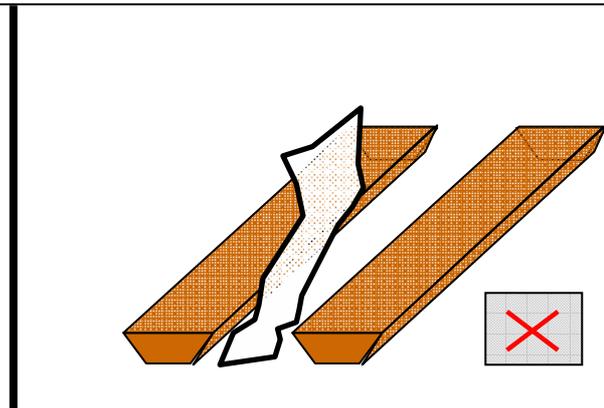
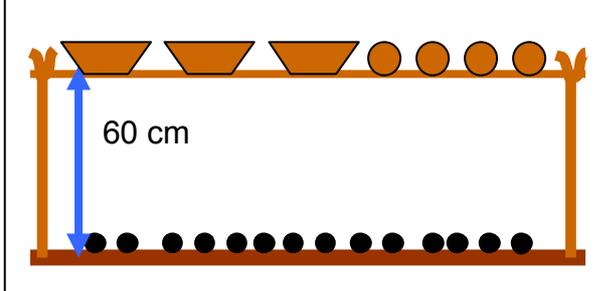
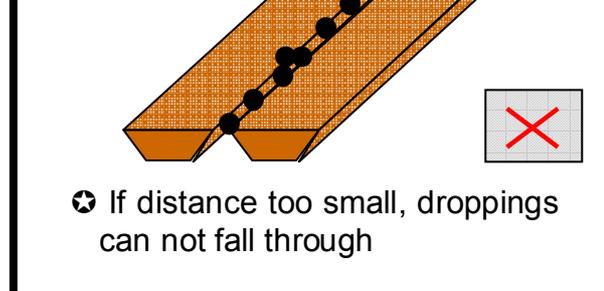
Animals should not stand with their feet in the mud or droppings. They have to be kept in dry and clean floors in order to reduce diseases (foot rot, worms,...).

## B. Types of floor

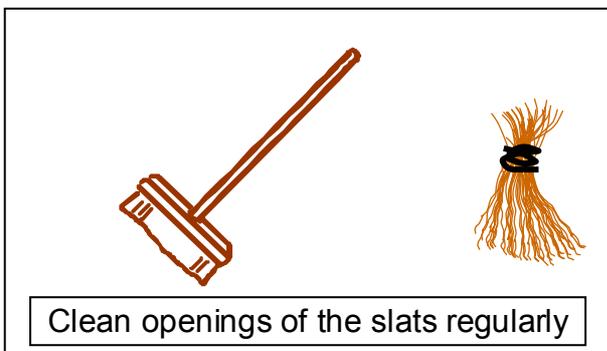
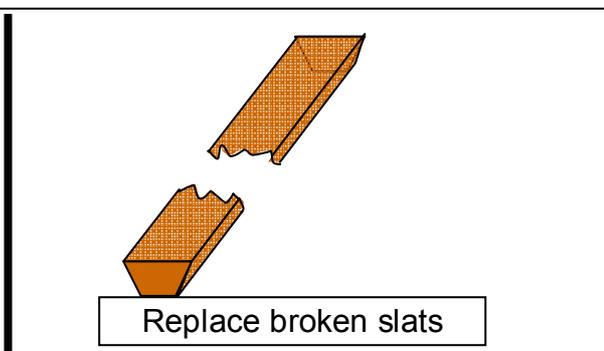
### B.i. **Slatted floors**

- ⊛ *Are clean because faeces and urine fall through the floor on to the ground*
- ⊛ *Healthier for animals*
- ⊛ *Easy to clean*
- ⊛ *Easy to collect manure*

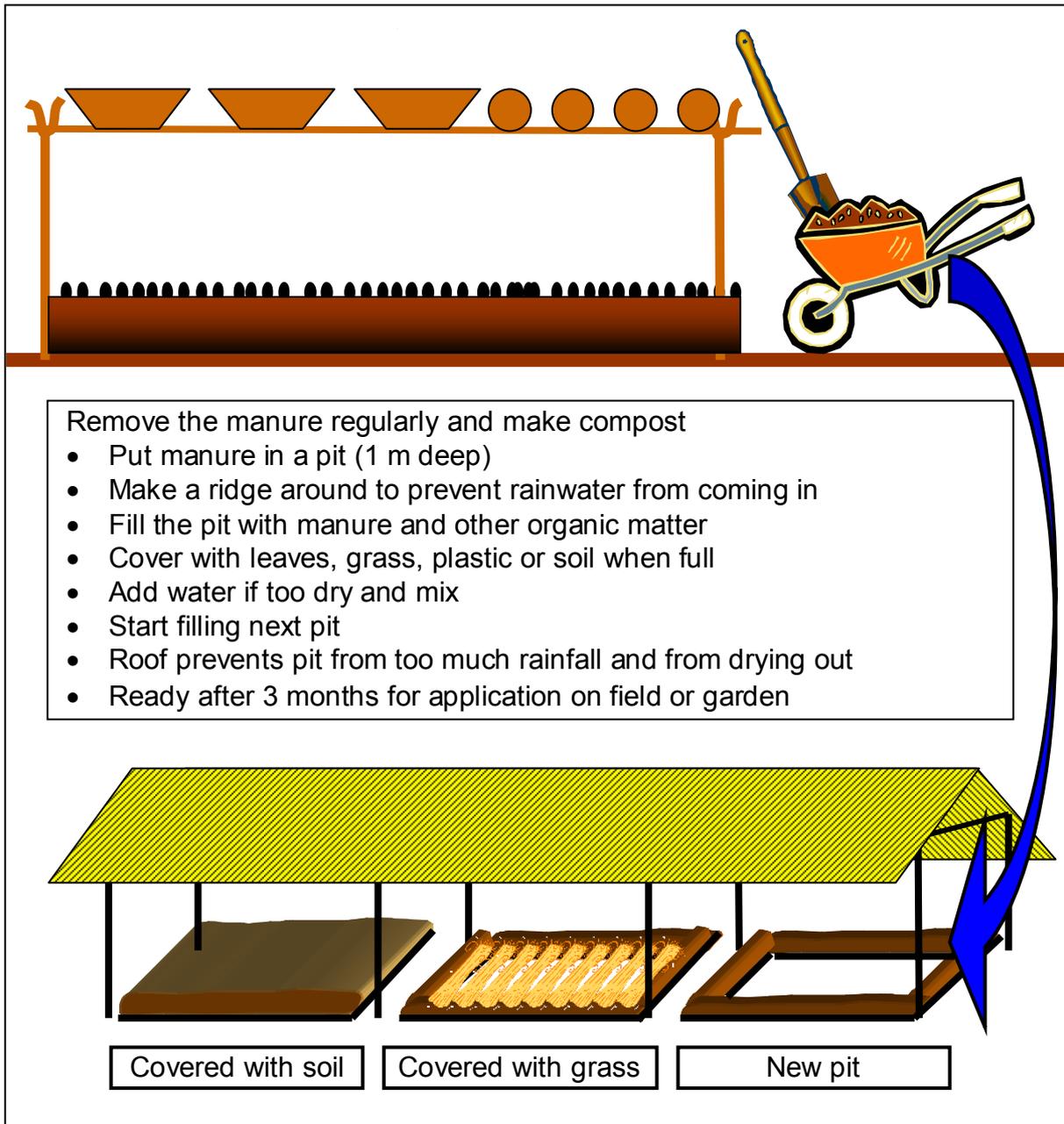
#### a) **Construction of slatted floor**

	
<ul style="list-style-type: none"><li>• Distance between slats is 1.5 - 2 cm (=thickness of thumb of adult)</li><li>• Distance from soil is 60 cm makes it easy to remove the manure underneath</li></ul>	<ul style="list-style-type: none"><li>⊛ If distance too big, foot injuries can occur</li></ul>
	 <ul style="list-style-type: none"><li>⊛ If distance too small, droppings can not fall through</li></ul>

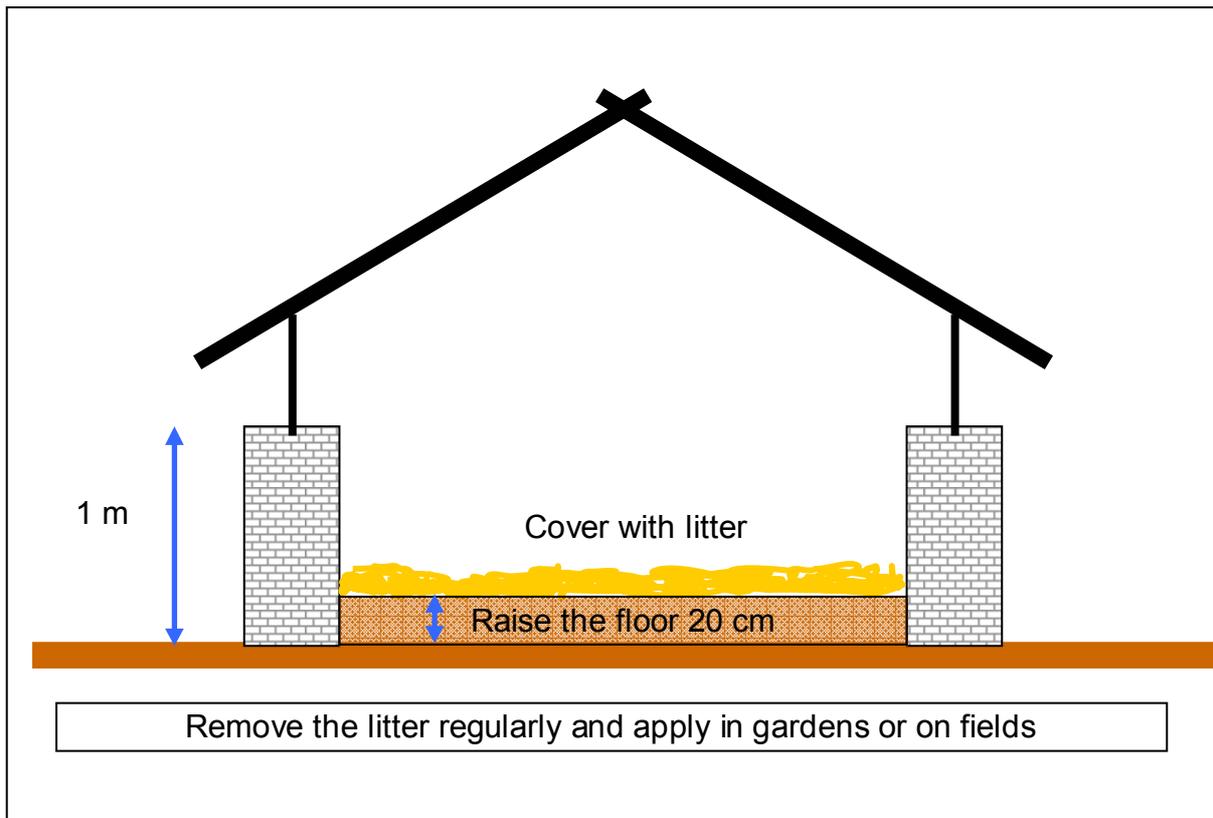
#### b) **Maintenance of slatted floor**

 <p>Clean openings of the slats regularly</p>	 <p>Replace broken slats</p>
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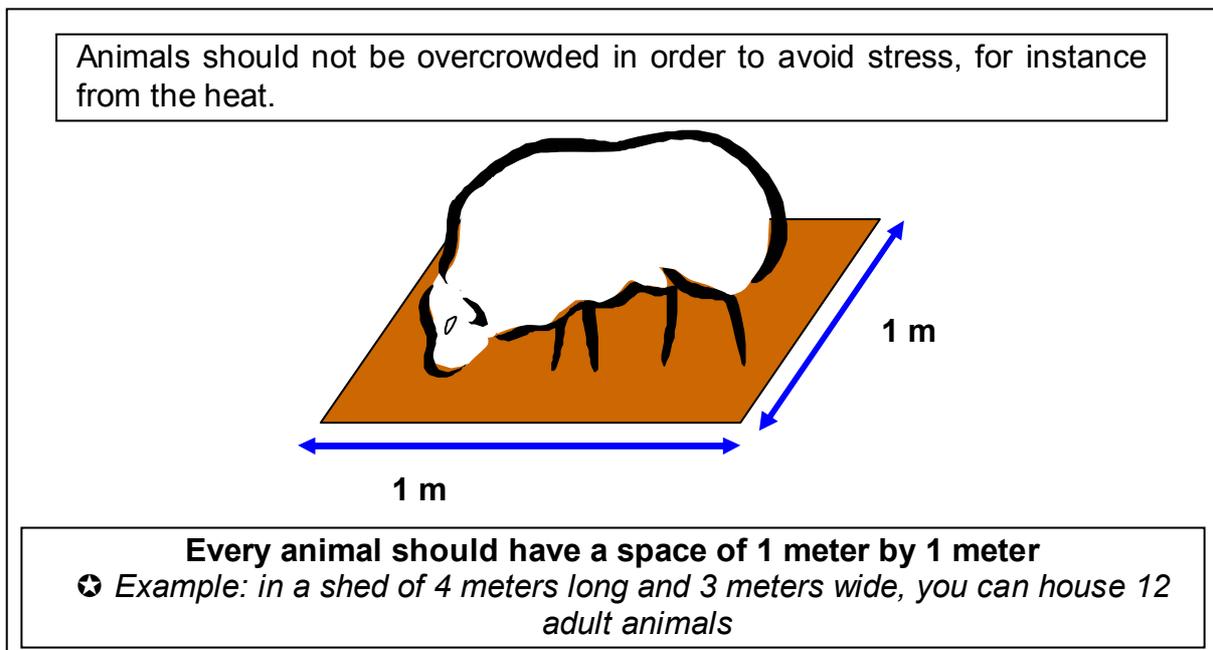
**c) Removal of manure**



## B.ii. Litter



## 5. SPACE FOR ANIMALS



## 6. PROVIDE WATER AND FEED STUFF

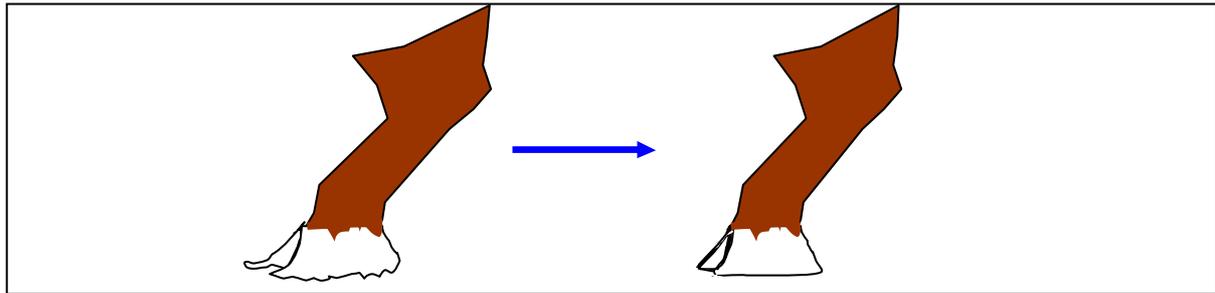
(See section II)

## SECTION IV: Hoof cutting-trimming

(after Merkel and Subandriyo, 1997)

### 1. INTRODUCTION

It is necessary to trim the hooves of the sheep and goats regularly. Do not wait too long, or cutting becomes more difficult.

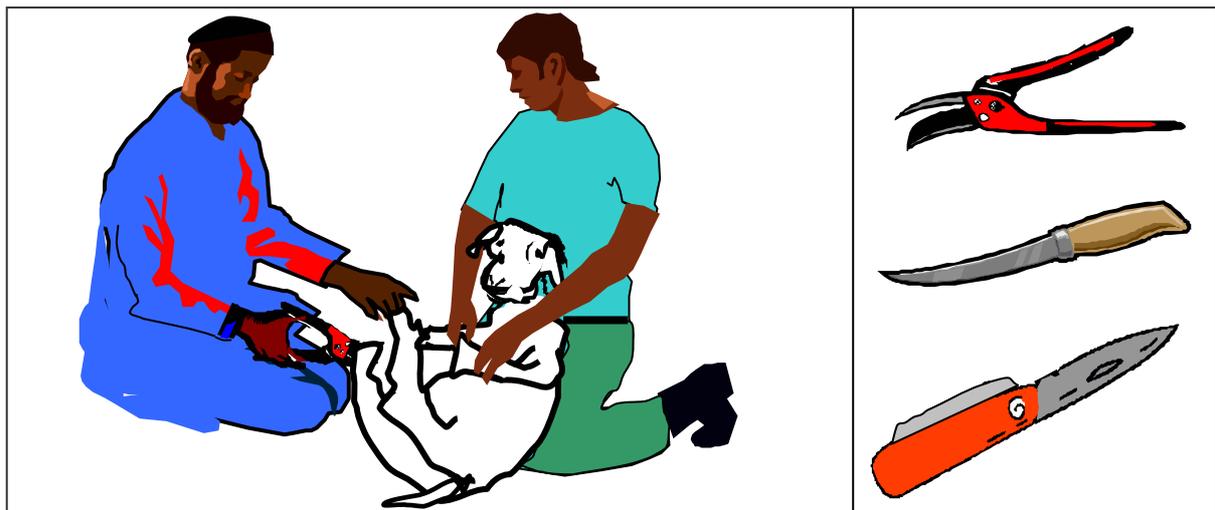


### 2. POSSIBLE PROBLEMS CAUSED BY LONG HOOVES

- Difficulties for walking and this can lead to foot or leg problems
- Difficulties for males to mate
- Hooves can break and cause injuries or infection
- Accumulation of dirt and germs, causing diseases (e.g. foot rot)

### 3. HOW TO CUT HOOVES?

- Hold the animal in a sitting position (alone or with help)



- First remove dirt and soil from the hooves
- Cut off long nails and any curled portions
- The foot should be trimmed flat
- Remove bumps under the heel
- Be careful and do not cut too deep or bleeding can occur

## References

As was stated in the foreword, this manual has largely been based on research findings from the Small Ruminant Research Project. Some information though was also extracted from existing manuals such as:

Chesworth J. 1992. L'alimentation des ruminants. Le technicien d'agriculture tropicale, CTA (Centre technique de Coopération agricole et rurale). Wageningen, The Netherlands. 263pp.

Diall O. 1997, Manuel technique sur l'utilisation des produits trypanocides. 32pp.

Gatenby Ruth M. 1991. Le mouton (volume 1 et 2). Le technicien d'agriculture tropicale. CTA (Centre technique de Coopération agricole et rurale). Wageningen, The Netherlands. 243pp.

Ibrahim H. 1998. Small Ruminant production techniques. ILRI training manual 3. ILRI (International Livestock Production Institute), Nairobi, Kenya. 207pp.

Jansen C., van den Burg K. 1991. L'élevage de chèvres sous les tropiques. Agrodok 7. CTA (Centre technique de Coopération agricole et rurale). Wageningen, The Netherlands. 60pp.

Merkel R.C., Subandriyo T.D. (eds.). 1997. Sheep and Goat Production. Handbook for Southeast Asia. Viii+214pp.