

*Theme 10: Hoof care*

# FIVE STEP PROTOCOL FOR HOOF TRIMMERS (Level 2)

Topic	Training & information Content
10.1	Hoof diseases and hoof care management
10.2	Five step protocol for hoof trimmers



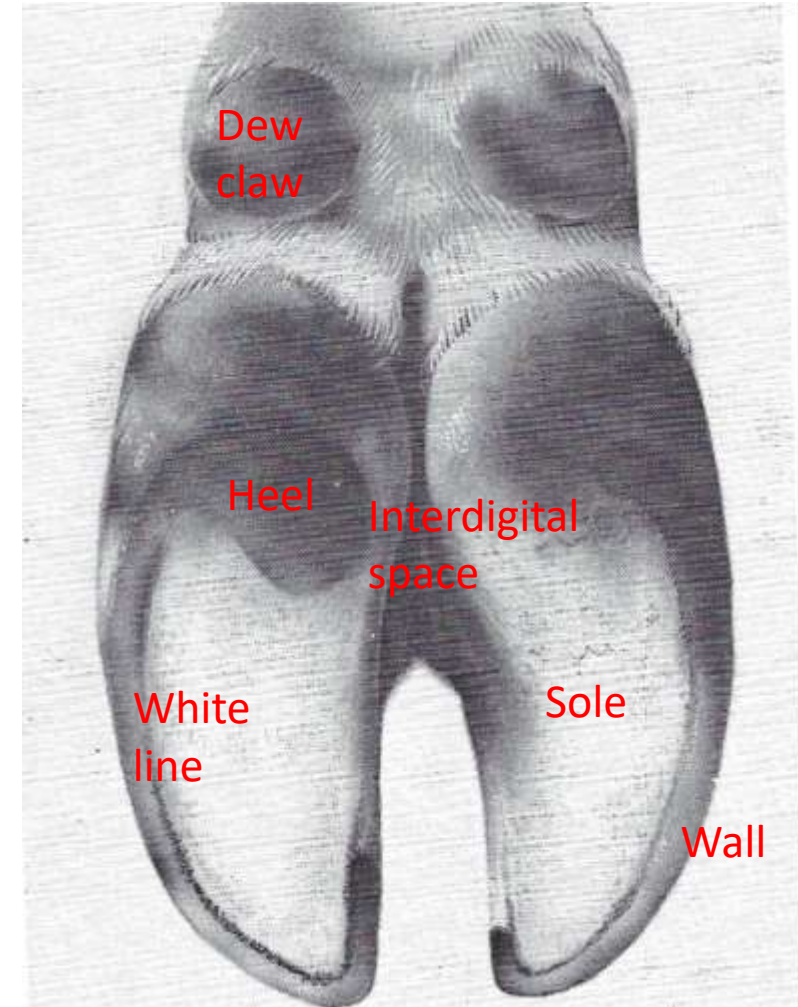
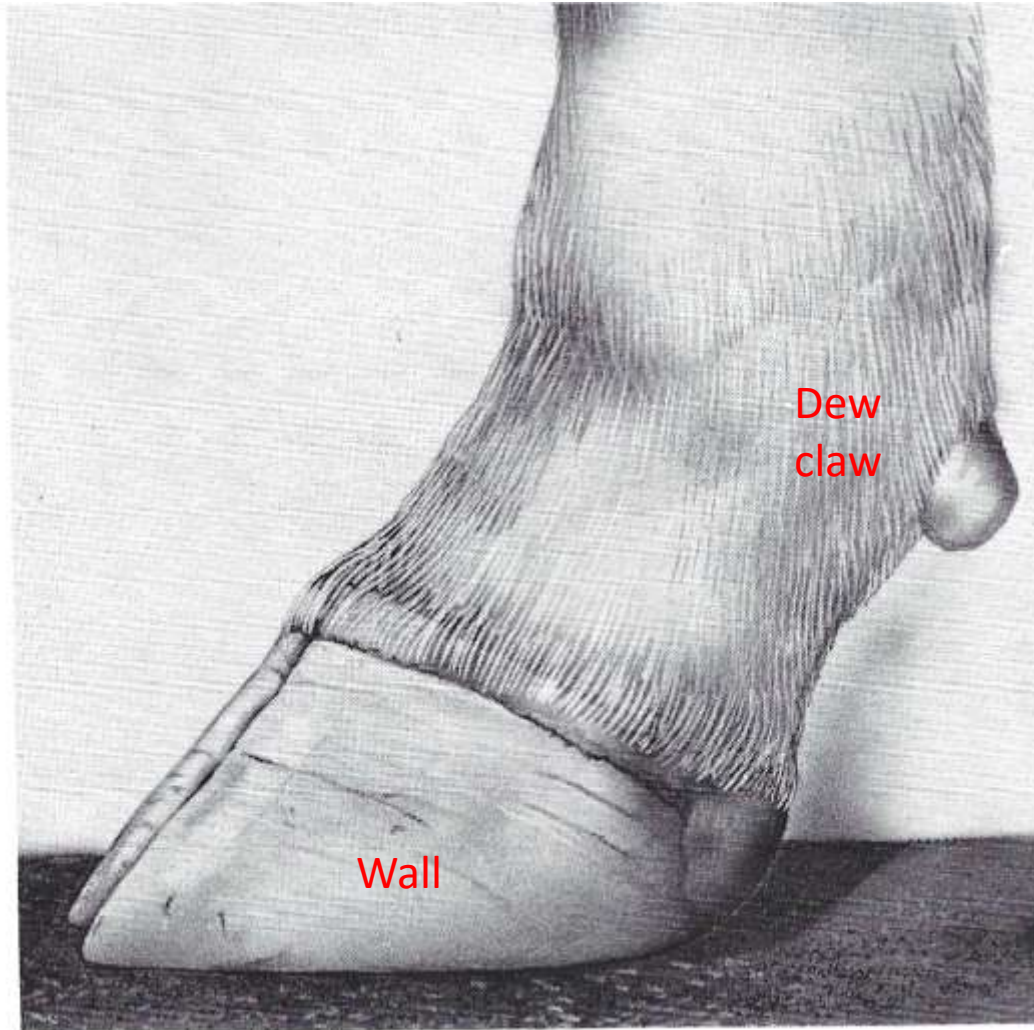
## 1. You will learn about (learning objectives):

- How to fix/restrain a cow for hoof trimming.
- How to lift cow's leg.
- Equipment you need for hoof trimming.
- How to functionally trim rear hoofs.
- How to functionally trim a front hoofs.
- How to therapeutically trim cattle hoofs.

You will learn the theoretics and understanding behind the job. Only practice can give you the skills!



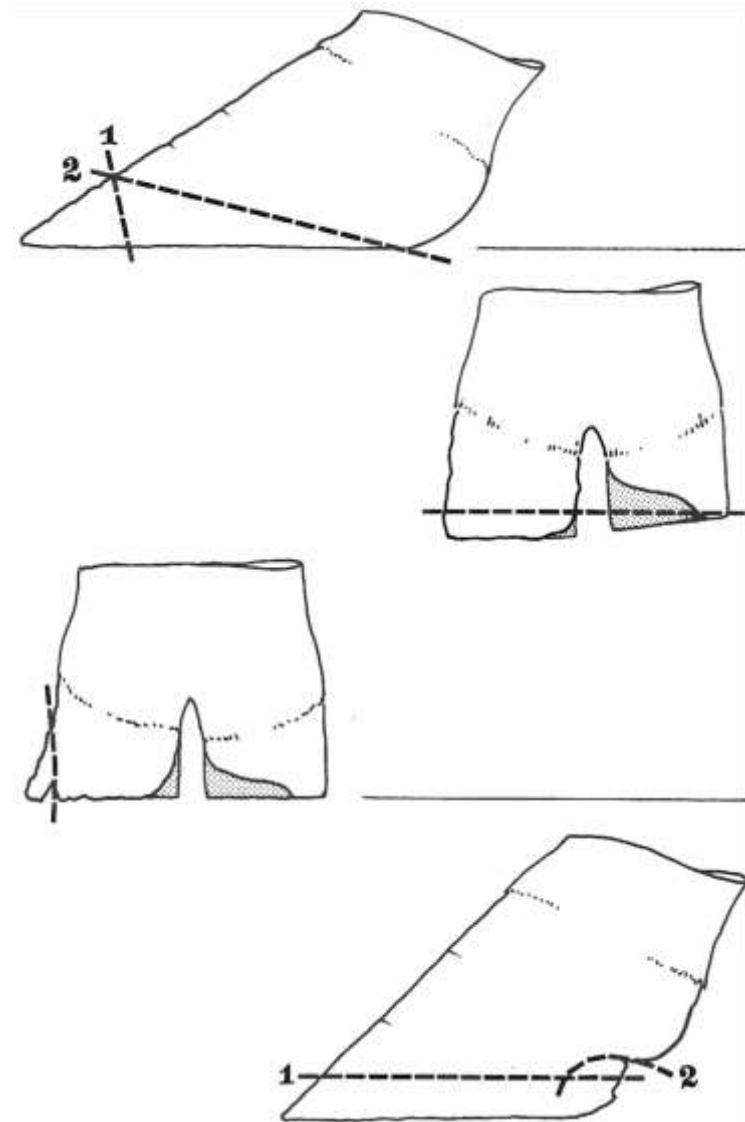
## 2. Introduction: Anatomy of the foot



Claw (hoof) makes 45 degree angle with the floor

### 3. Why cows need pedicure

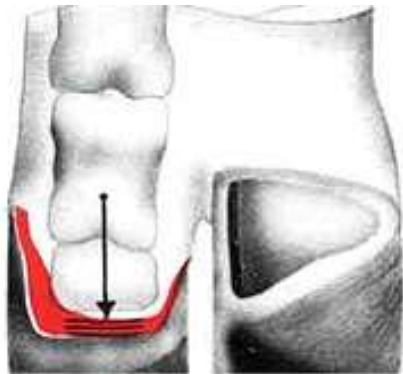
- When cattle no longer only walk in pastures all day, wearing of the hoofs changes. Also when milk production increases, the metabolism of the cow changes. These issues can lead to changes in hoof growth and appearance of hoof diseases.
- Cattle held on wet concrete floor have to be pedicured regularly in order to correct the way the body gives pressure on the hoofs. This is by;
  - Bringing the hoofs in a correct shape by clipping and cutting.
  - Removing the horn around injured places in the hoof to release pressure.



## 4. The Biomechanics



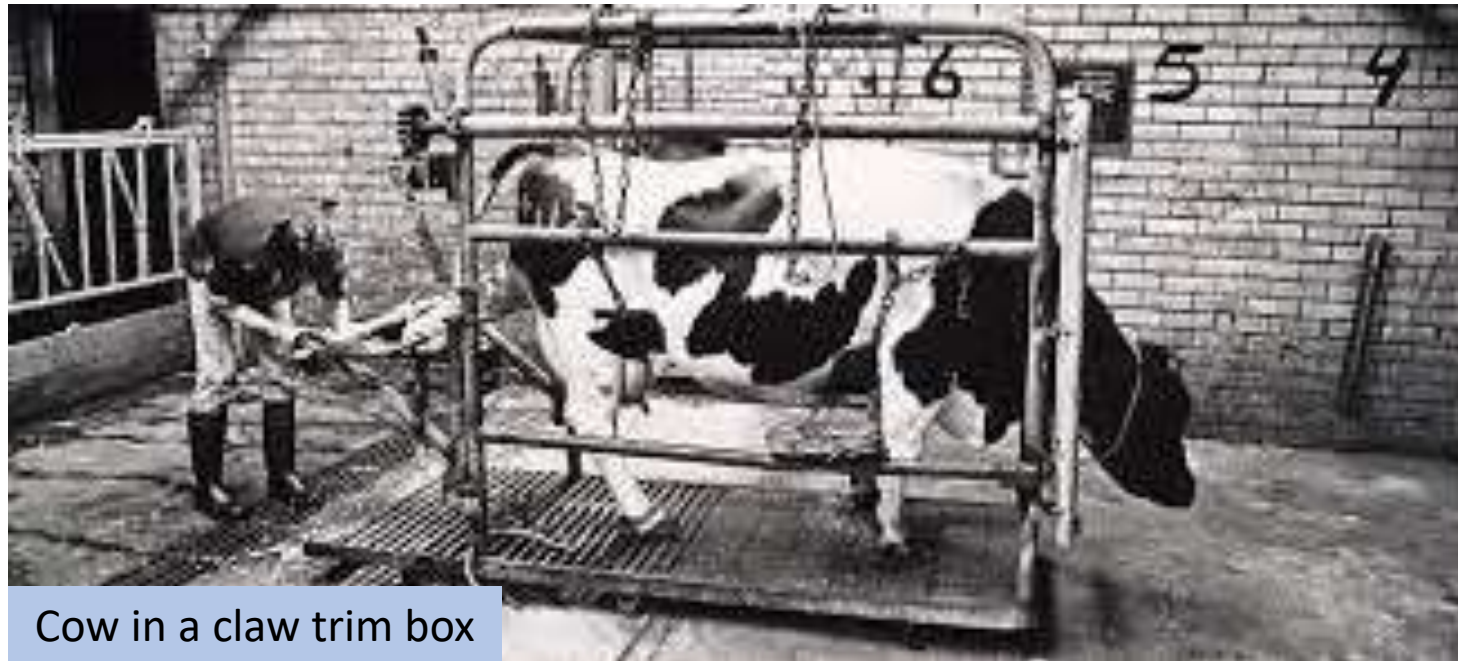
- In normal/healthy situation the pressure is divided over a larger area of the heel.



- When the situation is disturbed by overgrowth of the front part of hoof, most pressure is on a smaller area in the back of the heel, which can lead to abnormalities.
- Notice the turning of the pedal bone, comparing to the normal situation.

## 5. How to fix/restrain the cow

- In order to properly trim a cow's claw, she needs to be fixed/restrained to perform the job well and to safeguard the health of the trimmer.
- To do it properly you need a claw box.

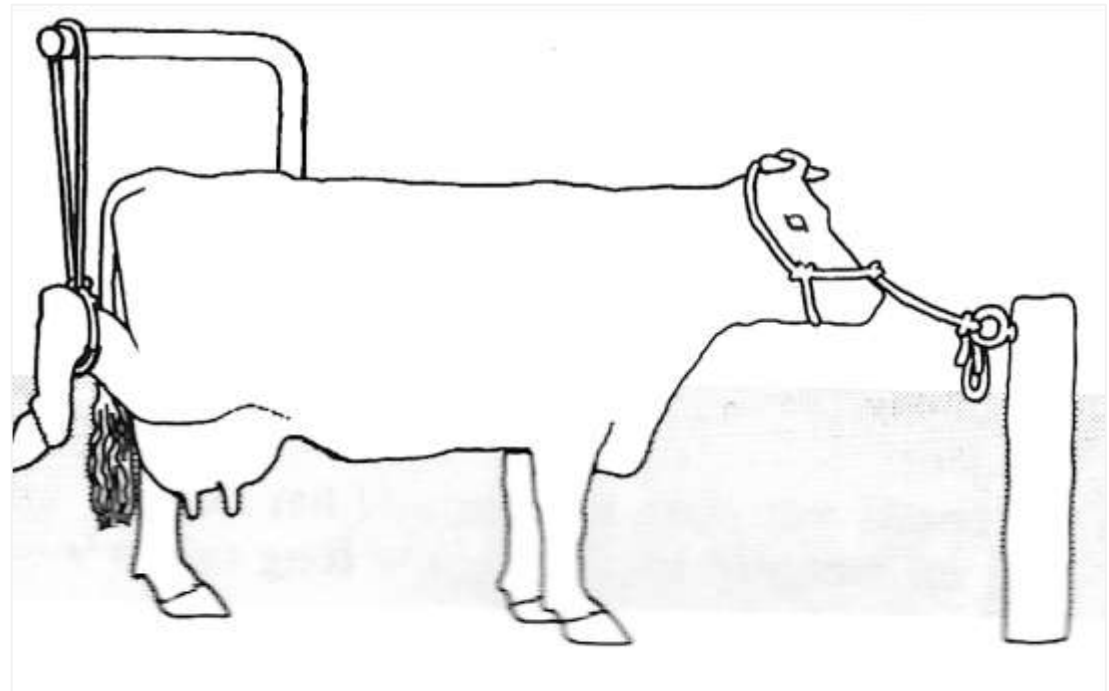
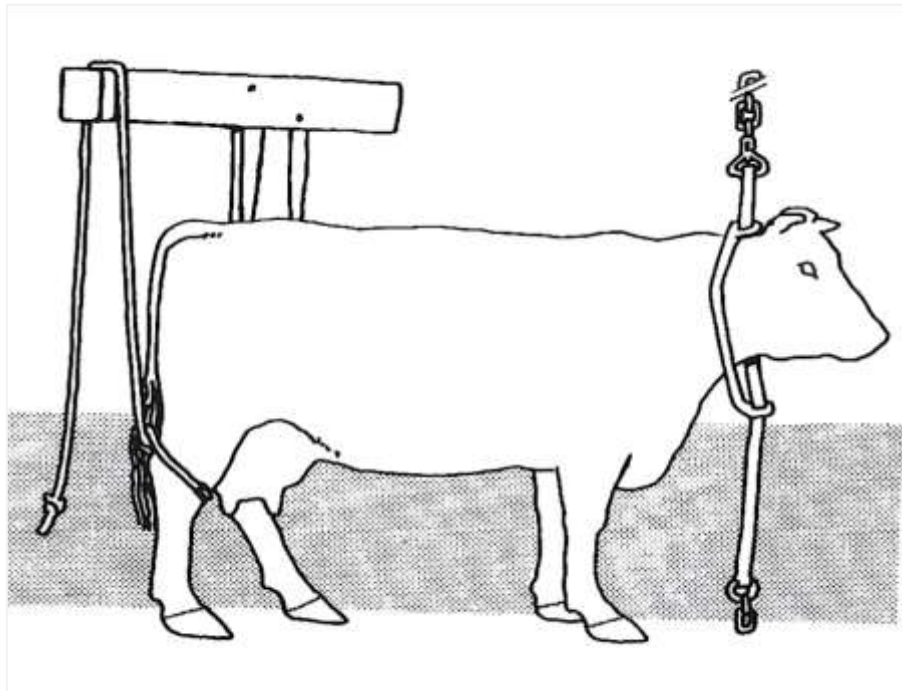


Cow in a claw trim box

## 6. How to fix the leg

When not having a hoof trim box;

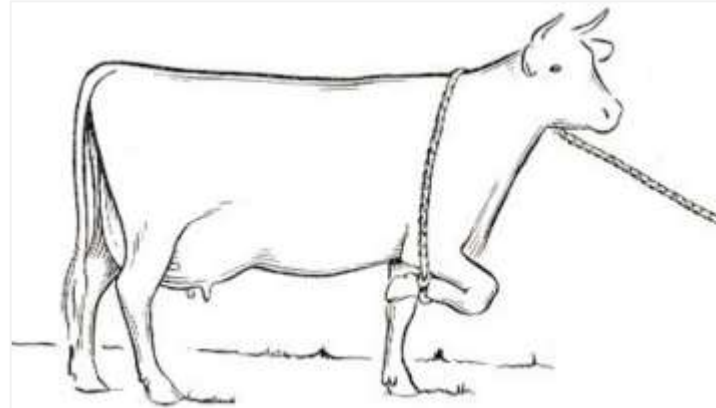
- Fix the cow's head.
- Use a stick and smooth rope.
- Lift the hock straight up, to the height of the tubular bone.
- Do not panic when cow falls, it can happen. Easily release the rope first.



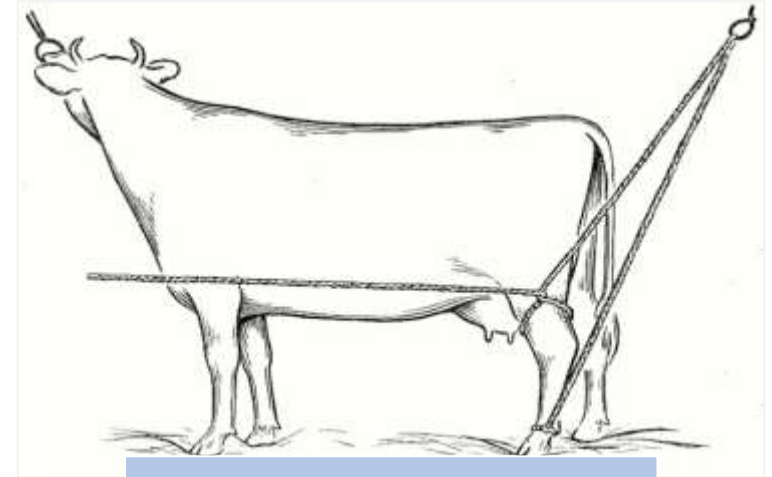
## 6.1 How to fix the leg Cont'd...



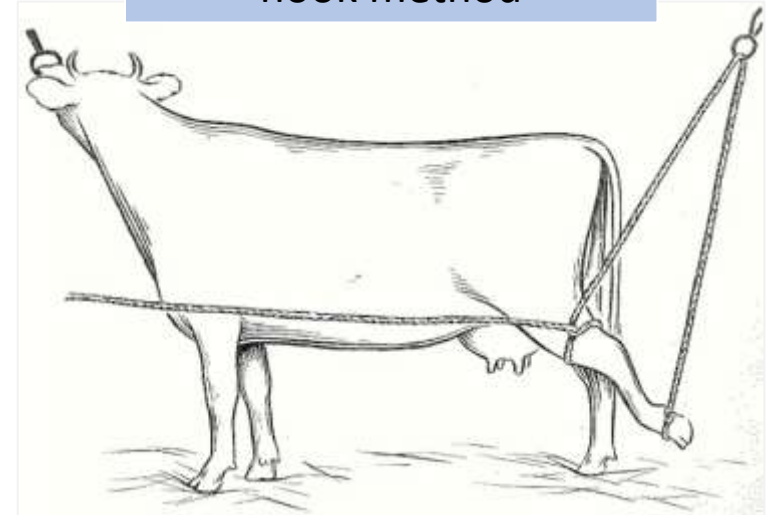
Lifting a rear leg manually



Raising a front leg



Raising rear leg beam  
hook method





## 7. Hoof trimming equipment



## 8. Hoof knives

- There are left handed and right handed knives.
- If you are right handed, it is also handy to have a left handed knife.
- Keeping the knives sharp is crucial.



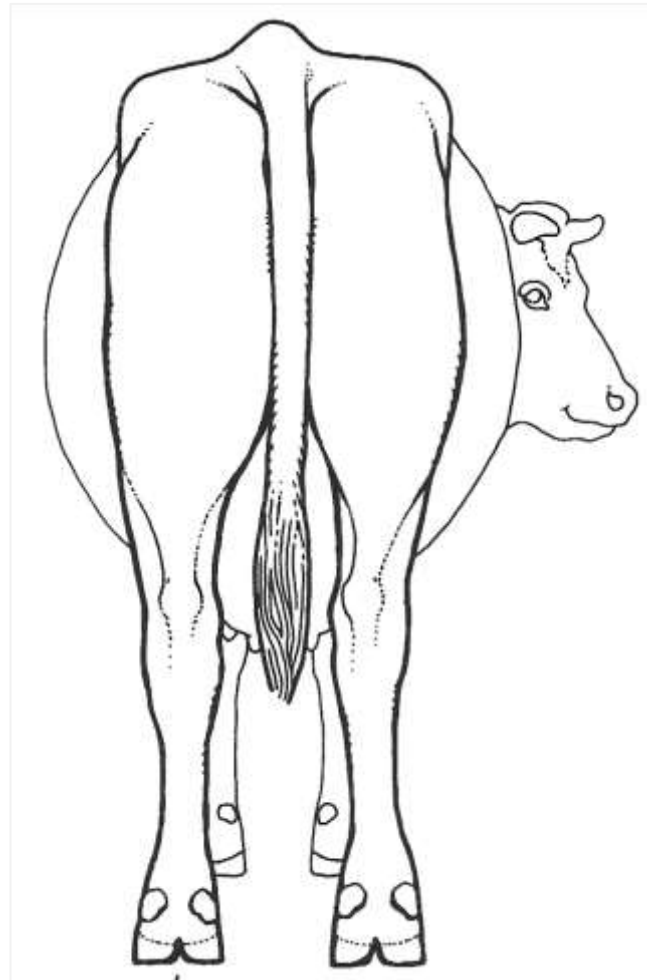
## 9. Pre-trimming checks

- Check how the cow is standing.
- Check the length and shape of the claws.
- Clean the hoofs with water and a brush.
- Inspect the hoof and especially the space between the claws.
- Check the length and shape of the claws.

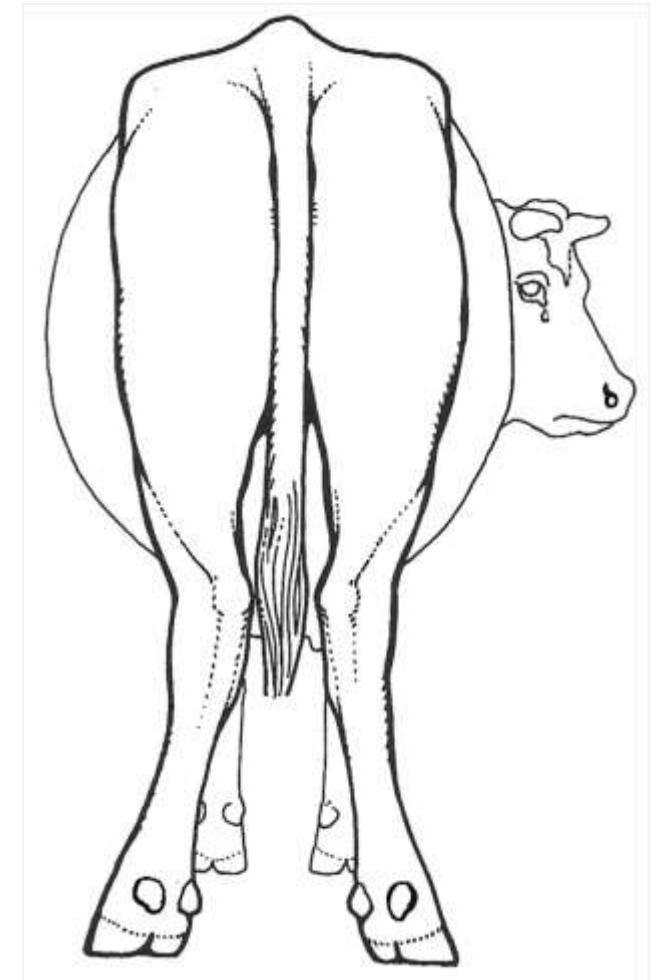


### Tips:

- Check stand
- Clean
- Check hoofs



Cow standing straight, likely not much trimming required.



Hocks bends inside, outside claws need to be shortened. Therapeutic trimming possible.

## 10. Five (5) steps of hoof trimming

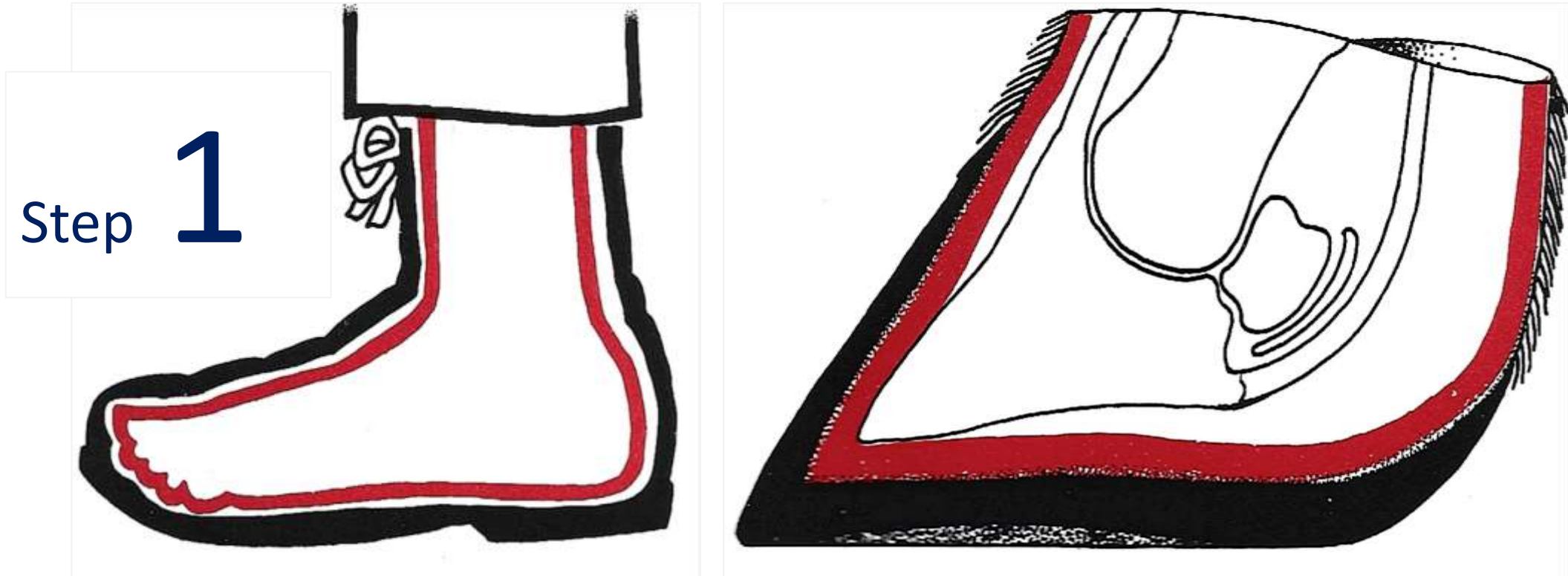
- The five steps of hoof trimming is a systematic approach to get a job well done.
- The order in which the five steps are taken is of utmost importance.
- Every step focuses on how to get the cow standing fair and square.
- By starting with treating the problems first (step 5), the aim can be in jeopardy.

### The five (5) Steps

1. Decide the length and trim the length of the inner claw.
2. Fit the outer claw to the inner claw.
3. Make them flat.
4. Model them in right shape and remove loose horn.
5. Treat any diseases (therapeutic trimming).



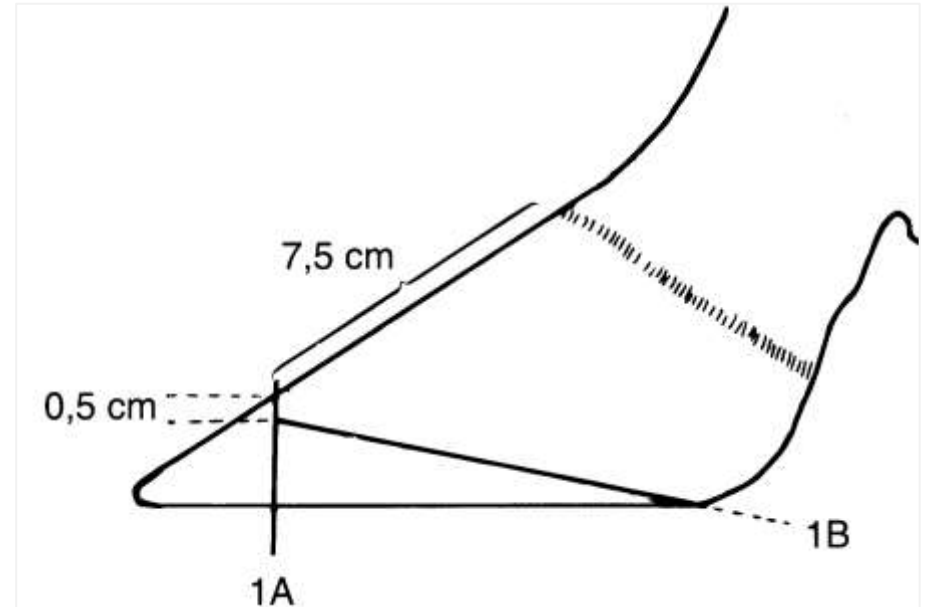
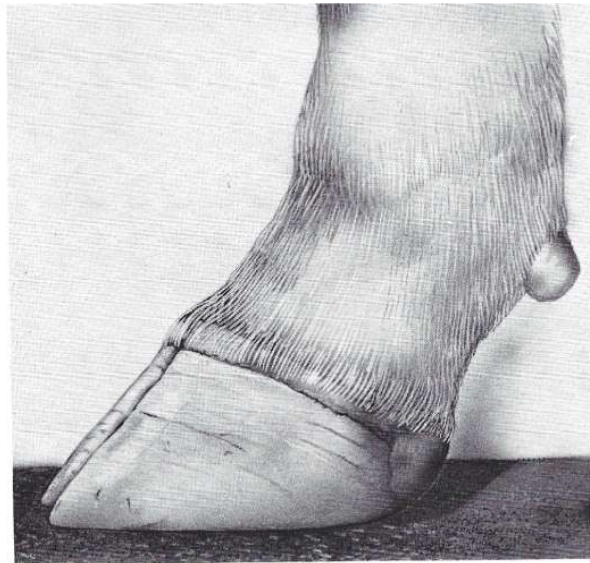
## 11. Step 1: Decide the length and trim the length of the inner claw



To decide the length of the claw is very important; the hoof shoe should fit perfectly. By cutting too short, the soft tissues will be damaged.

## 11.1 Step 1 Cont'd: Decide the length and trim the length of the inner claw

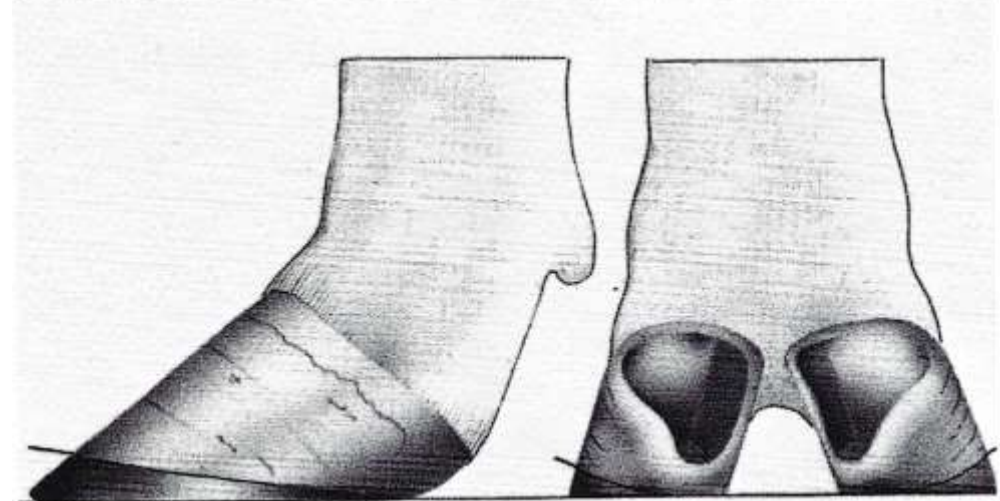
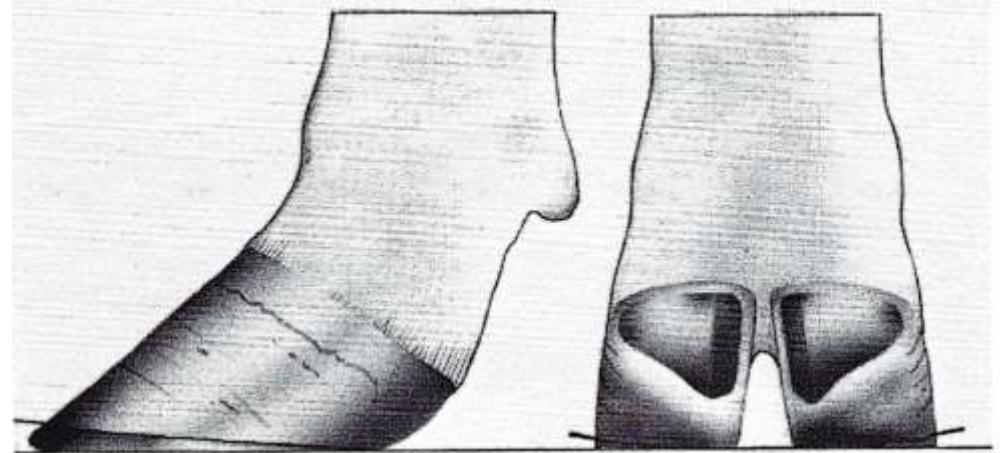
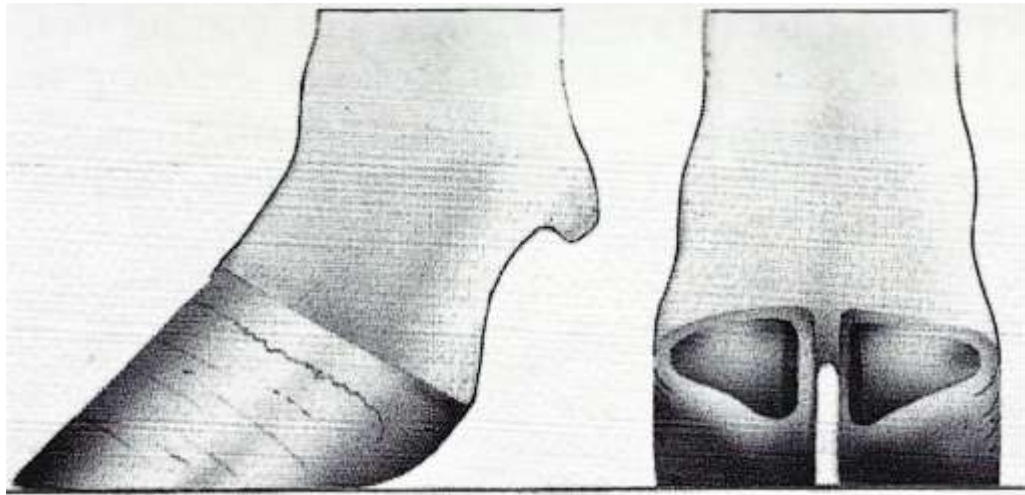
- A healthy claw will make a 45 degree angle with the floor.
- The length from the tip of the hoof to the coronary band will about 7.5 cm. This is similar to 4 fingers wide. This width of your hand minus the thumb.
- In most cases only the rear hoofs need a trim.
- When walking on a hard floor, the medial side of the claws will grind faster and the front and lateral side will grow long.



- Cut the inner hoof at 7.5 cm ( 1A)
- Leave the sole 0.5 cm thick ( 1B )
- Leave the back 5 cm high ( 1C )

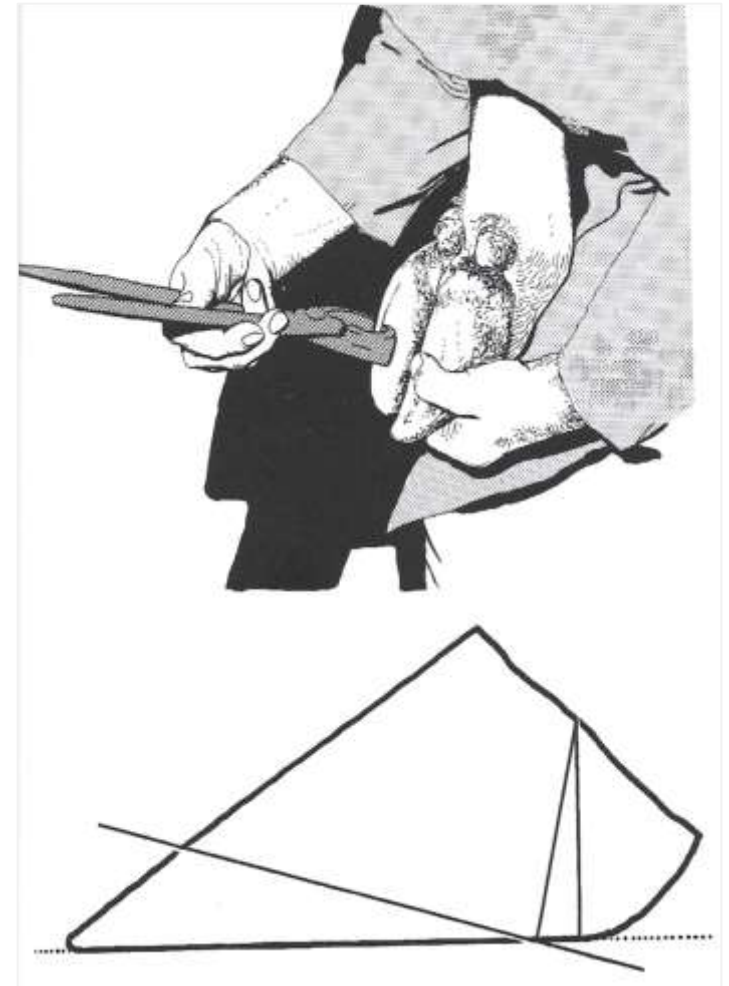
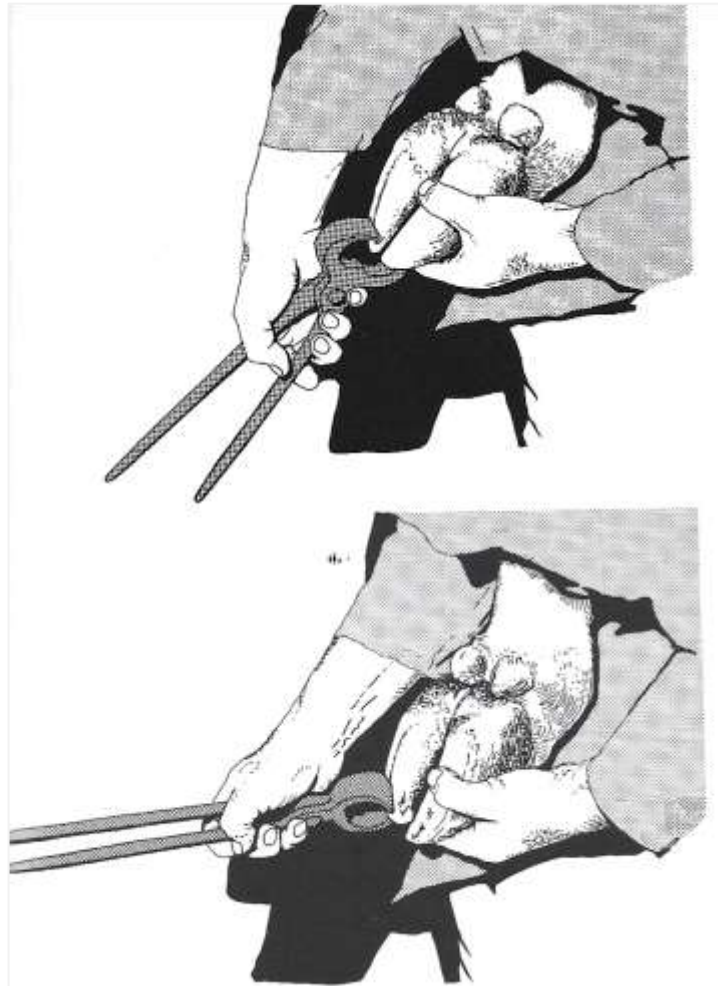
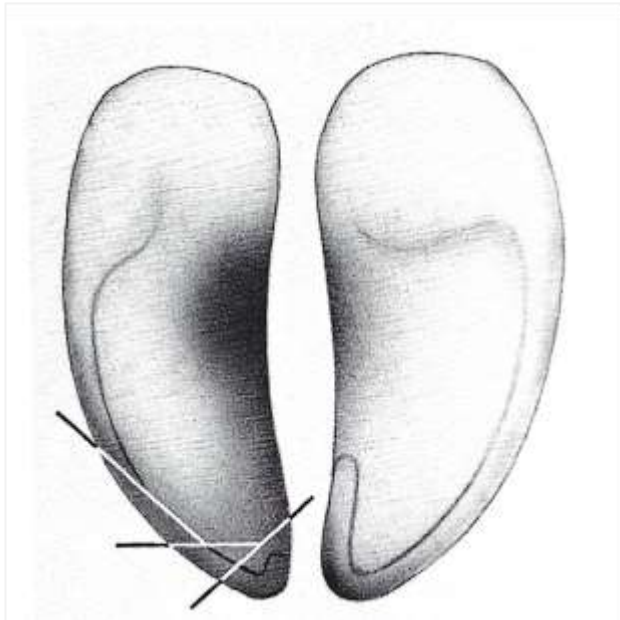
## 11.2 Step 1 Cont'd: Decide the length and trim the length of the inner claw

- The aim will be to get the cow standing in the best/normal way as in the picture underneath.
- This means that horn needs to be removed like indicate on the pictures on the right.



## 11.3 Step 1 Cont'd: Decide the length and trim the length of the inner claw

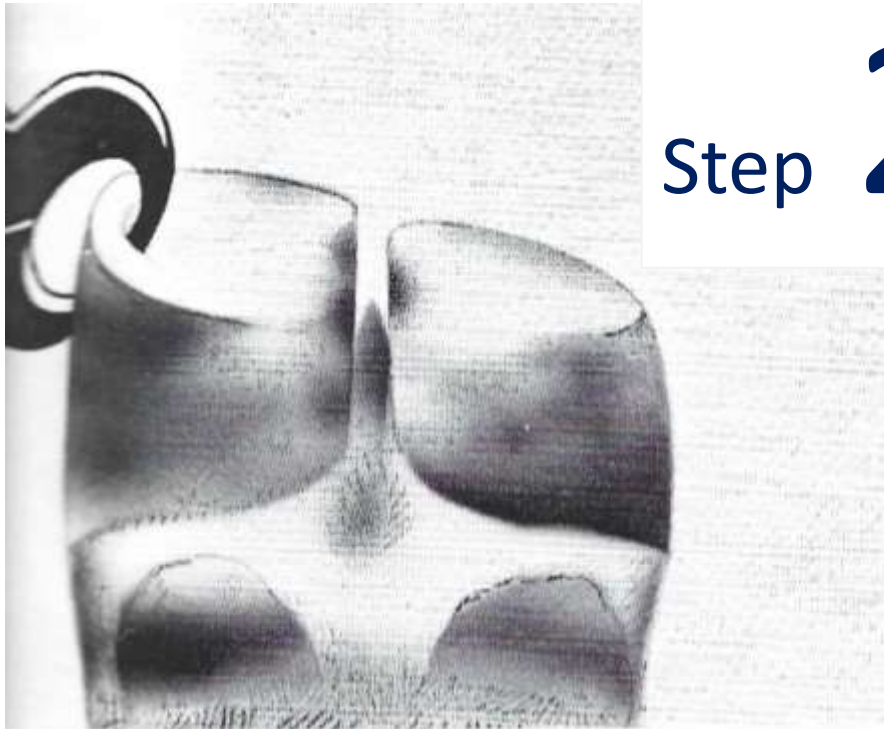
- Clip the hoof as shown in the pictures.
- Do not shorten the wall on the heel side.
- Aim is to keep the inner claw as high as possible.



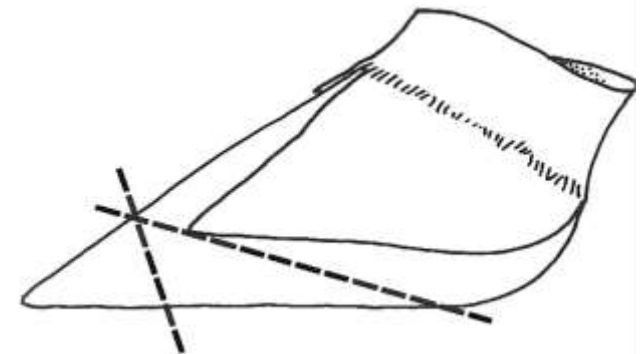
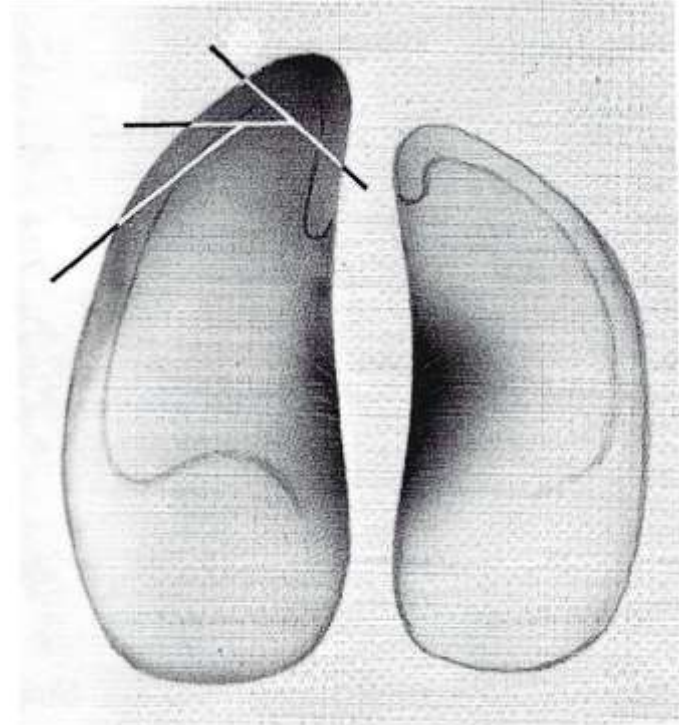


## 12. Step 2: Fit the outer claw to the inner claw

- Clip the outer claw just as long as the inner claw.
- Do not clip if the length is normal.
- Clipping too short, especially at the tip of the sole can give lesions, which can lead to a nasty lameness.

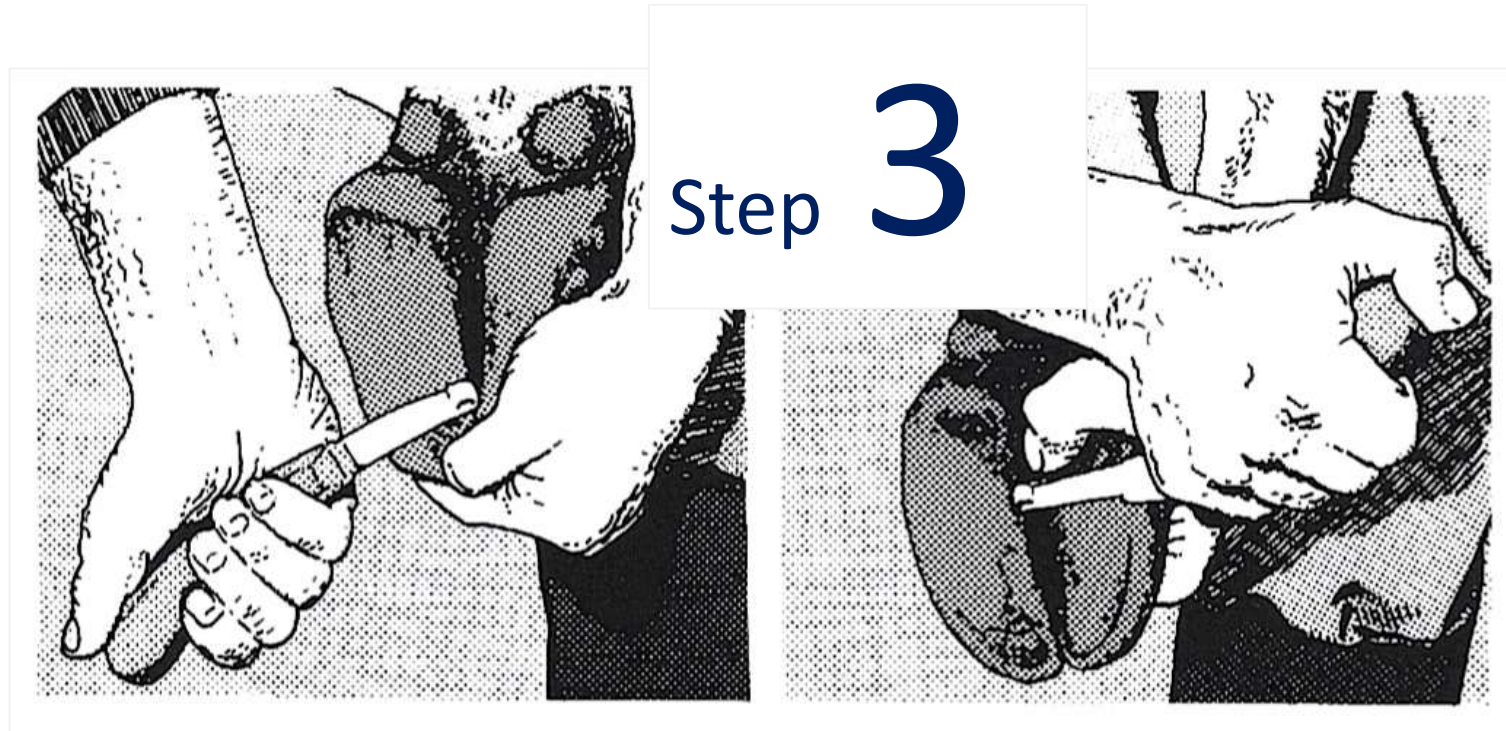


Step 2



## 13. Step 3: Make the soles flat

- Cut by slicing the knife.
- Cut flat not hollow.
- Do not start modelling the hoof yet.
- The length is decided by the edge of the clipping.
- Do not take horn from the heel.
- For checking if the soles are flat, put the flat side of the handle of your knife on both claws.
- Take distance and judges the angles.
- Some trimmers tend to keep the inner claw a bit longer to take the pressure from the outer claw.



### Safety first



- Keep the hoof knife as flat as possible with the sole.
- Support the hoof with the hand not used for cutting.
- Always cut away from that hand.

## 13.2 Step 3 Cont'd: Make the soles flat

Check closely if the sole is flat.

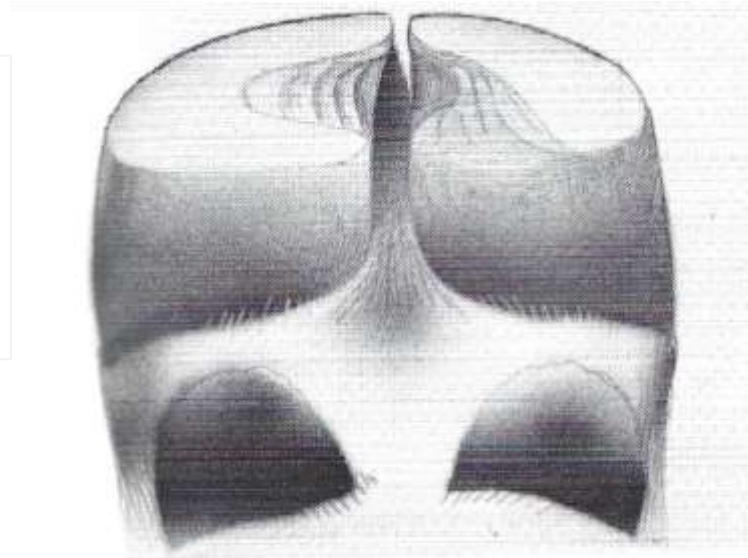
- Put your hand on the front of the claw.
- Watch from above as shown on the picture.
- To help check, you can put the flat end of the handle of the knife or a another flat item on the sole.
- It can also help to look from another angle, the side, to judge again. This way you can also check the 45 degree angle the hoof should make with the standing surface.
- If not correct yet, adjust it.
- Make sure you do not cut too short.



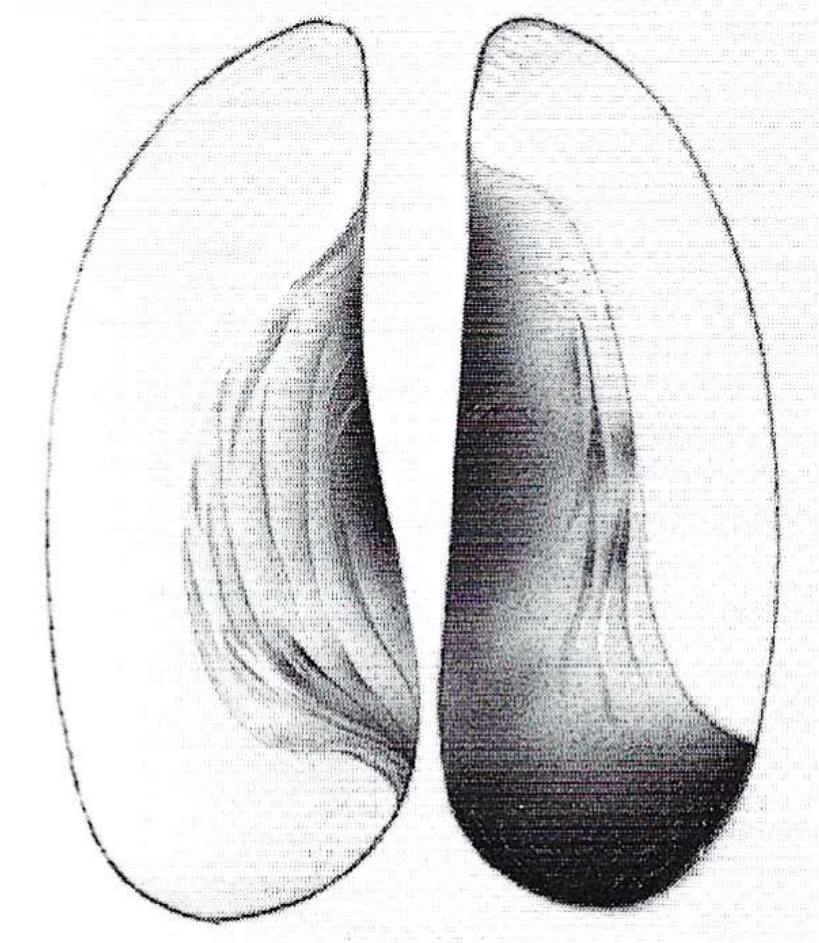
## 14. Step 4: Model the sole and remove loose horn

- The last step of the functional pedicure is to model the sole and to remove loose horn.
- Now the functional pedicure is ready. The cows stand will be corrected and when the claw is healthy the job is now finished.
- You can put the leg on the floor now and check the result of the work done.

Step 4



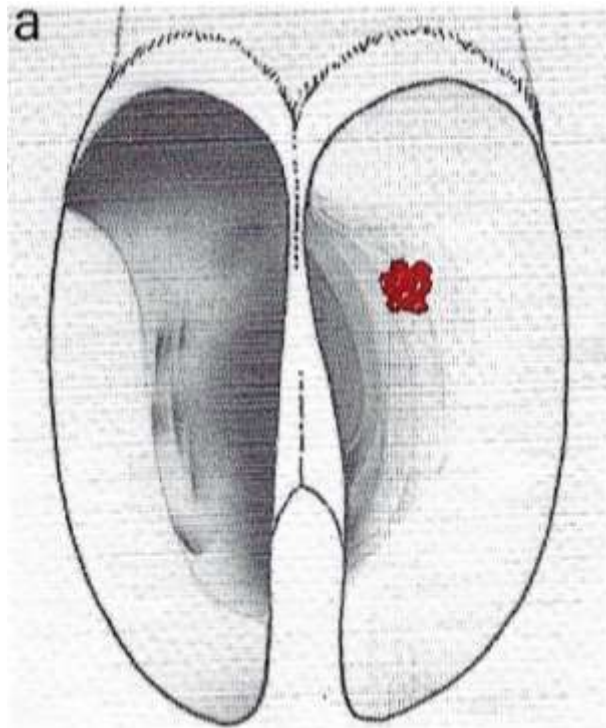
Inside hoof



Outside hoof

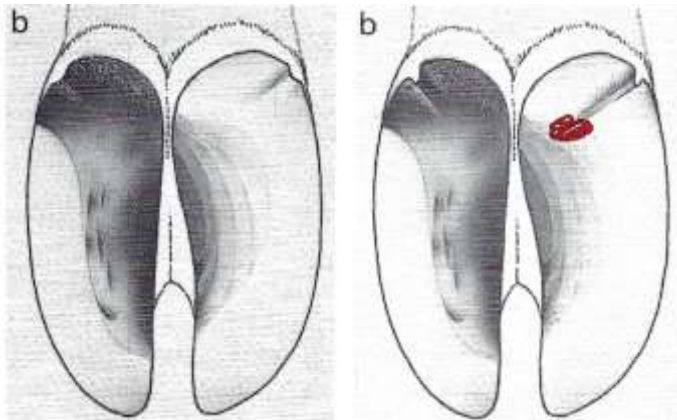
## 15. Step 5: Therapeutic pedicure

- The most important step for therapeutic trimming is already taken. By good functional pedicure, the cows standing position will be improved. This will decrease lameness and already help cure possible issues.
- Nevertheless there are certain problems, which require special attention. These can be; (a) Sole ulcer, (b) fissures and (c) wall defects.

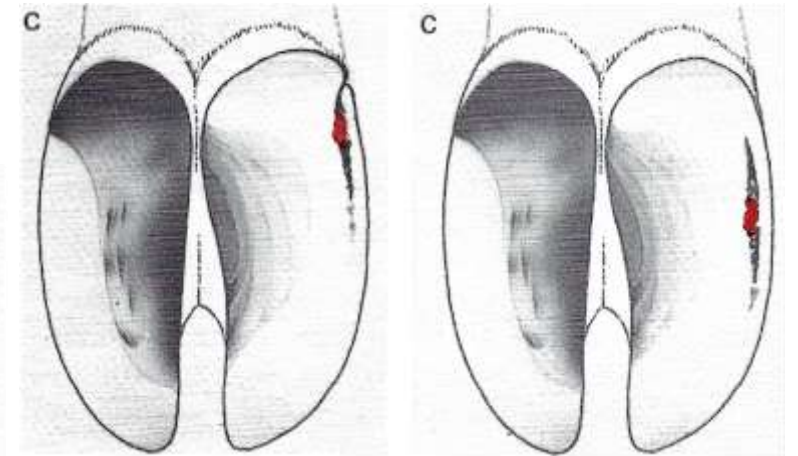


Sole ulcer

### Step 5



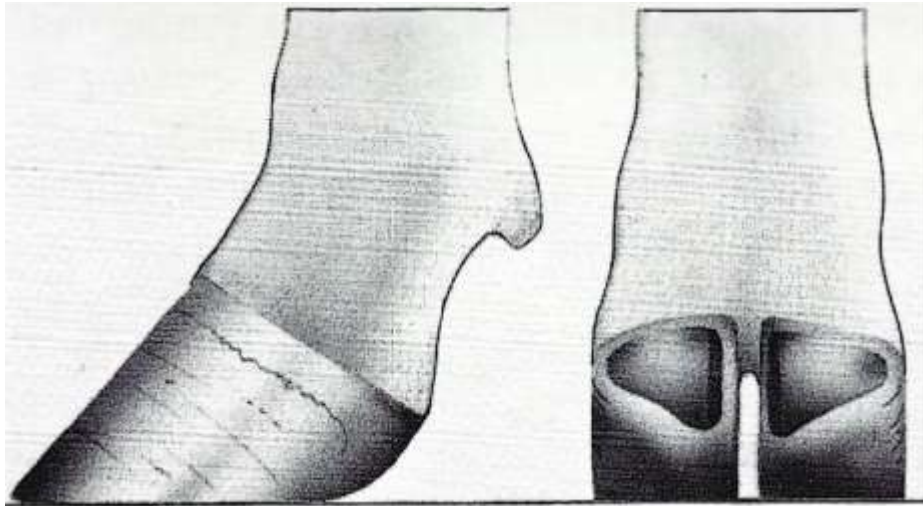
Fissures



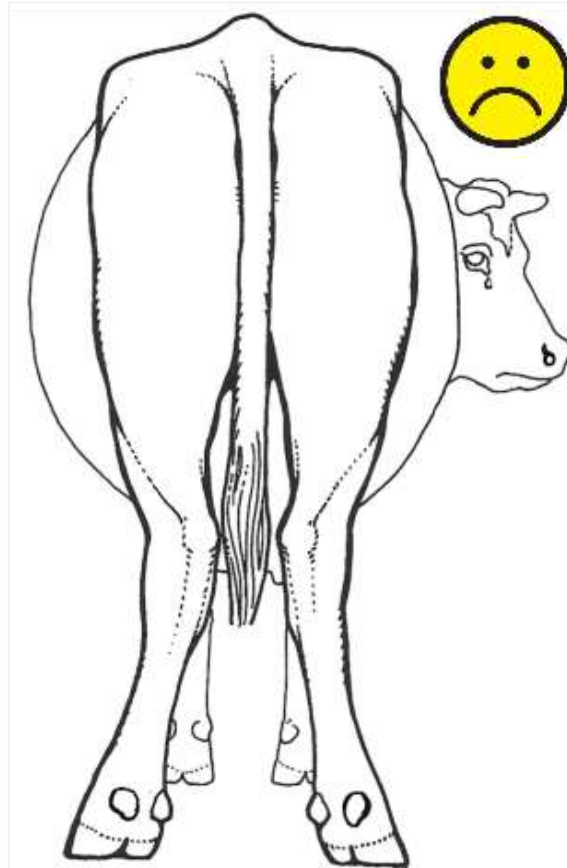
Wall defects

## 16. When the job is finished: Results of hoof trimming

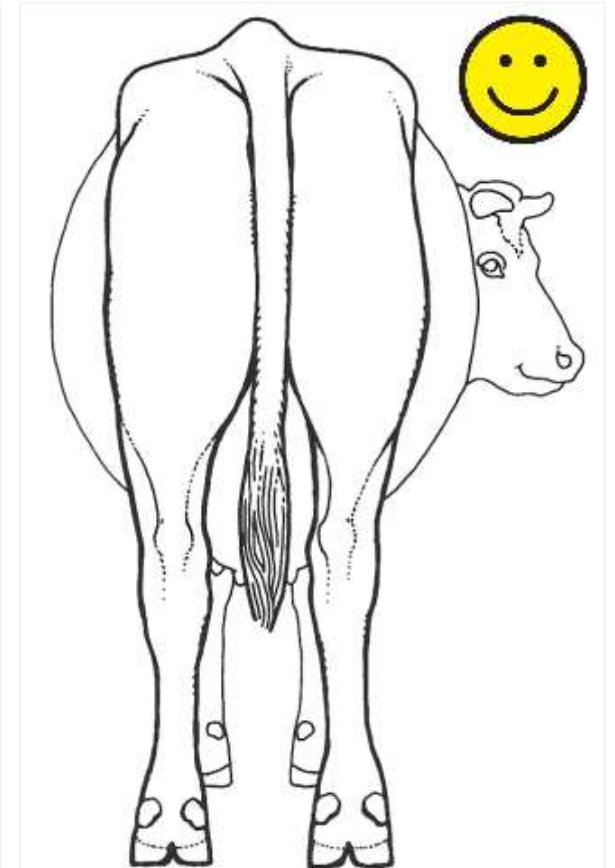
- Put the leg back on the floor and check.
- Go stand behind the cow and look if there is improvement.
- Go stand aside of the cow in judge of the angle of the hoof with the floor is correct.
- Often perfection is not achieved, but improvement should be observed.



The result of hoof trimming



BEFORE trimming



AFTER trimming



## 17. Summary/Take home messages

### Disclaimer

1. You only become a skilled hoof trimmer with a lot of practice, if trained on the job by an experienced teacher.
2. Understanding the theoretics behind the work you perform is essential.
3. No hoof trimming job can be done without proper tools.
4. To continue practising, maintaining tools (knives) is crucial.

Watch video:

<https://youtu.be/BxvuXyJ4nrs>

