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How to trim the hooves of sheep and goats



ESGPIP

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FOREWORD

This technical bulletin titled “*How to trim the hooves of sheep and goats*” is the 21st in a series produced by the Ethiopia Sheep and Goat Productivity Improvement Program (ESGPIP). The ESGPIP is a USAID funded Project with the objective of improving the productivity of Ethiopian sheep and goats in Ethiopia.

Hoof trimming is an essential part of sheep and goat management. Flocks should be checked for hoof growth on a regular basis. The hooves of sheep and goats grow and, if not trimmed, can cause problems to the animal. Overgrown hooves make walking difficult and predispose the animal to other foot problems. Bad hooves make walking painful and competing for feed difficult. This may cause sheep and goats to go off feed and stop exercising. Animals with overgrown hooves are also very susceptible to joint/tendon problems, and arthritis. Breeding male sheep and goats use their hind legs during mating. Mating and reproductive performance of a flock can seriously be affected if hooves of breeding males are not trimmed.

Proper methods and procedures of trimming hooves of sheep and goats are presented in this bulletin. The information contained in this bulletin is useful for development agents to train farmers/pastoralists and also for other users engaged in business ventures based on sheep and goat rearing.

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May, 2009

TABLE OF CONTENTS

FOREWORD	ii
TABLE OF CONTENTS	iii
1. WHY TRIM HOOVES?	1
2. FREQUENCY OF TRIMMING	2
3. HOOF TRIMMING TOOLS	2
4. STEPS IN TRIMMING HOOVES OF SHEEP AND GOATS	3
5. SUMMARY	5
6. WHAT SHOULD THE DEVELOPMENT AGENT DO?	6

HOW TO TRIM THE HOOVES OF SHEEP AND GOATS

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1. WHY TRIM HOOVES?

The hooves of sheep and goats grow and, if not trimmed, can cause problems to the animal. Overgrown hooves make walking difficult and predispose the animal to other foot problems such as foot rot; especially if animals are in damp, muddy environments. Bad hooves make walking painful and competing for feed difficult. This may cause sheep and goats to go off feed and stop exercising. Animals with overgrown hooves are also very susceptible to joint/tendon problems, and arthritis. Permanent damage can result if the foot is left neglected for extended periods of time. Breeding bucks/rams place great stress on their hind legs and feet during mounting. If they are in pain from bad feet, they will refuse to mate thus reducing reproductive rates in a flock. Thus, hoof trimming is an essential part of sheep and goat management.

Flocks should be checked for hoof growth on a regular basis. Signs that might indicate the need to trim hooves include abnormalities in locomotion and/or animals showing signs of pain while walking. Figures 1 and 2 show an overgrown and a properly trimmed hoof respectively.

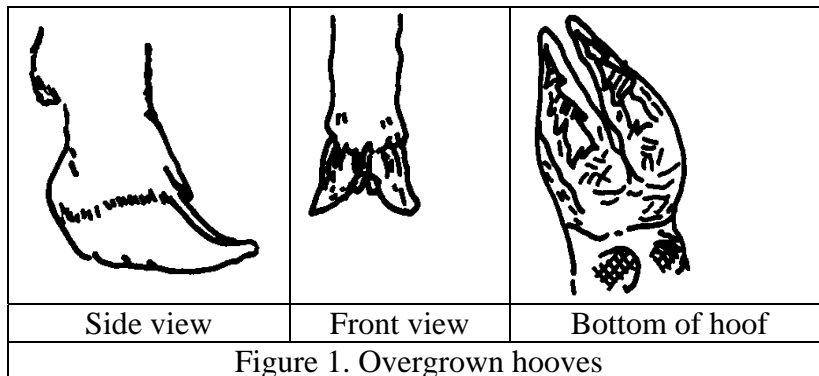


Figure 1. Overgrown hooves

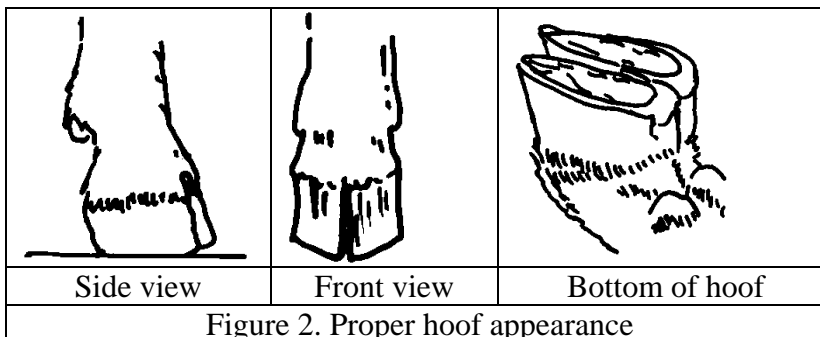


Figure 2. Proper hoof appearance

2. FREQUENCY OF TRIMMING

How often to trim will depend on the level of hoof growth which in turn is affected by the following specific conditions:

- **Breed** (e.g., Boer goats seem to require much attention to their hooves even in dry and rocky areas);
- **Environment:** Wet climates and farmland conditions greatly increase the need for hoof trimming while animals grazed on rocky, dry soil require trimming less frequently. Animals that have access to hard surfaces will naturally wear down the hoof and require less frequent trimmings. The need for hoof trimming is, therefore, more important in animals intensively managed in pens, walking on grass, or that do not extensively move around on rough surfaces. Some small ruminant owners feed their animals on a roughened concrete surface to help the hooves wear down naturally.
- **Diet:** Hooves of animals that are fed a high energy and protein diet tend to grow more rapidly.

Trimming should generally be done about every two months depending on growth rate. A minimum of 2 to 3 trimmings a year is essential for animals under intensive or semi-intensive management despite their diet or environment. An important point to note is that the job of hoof trimming becomes more difficult the longer hooves are allowed to grow. Care should be taken to avoid trimming feet of ewes/does during late gestation since this may cause injury.

3. HOOF TRIMMING TOOLS

Trimming the hooves of a large number of sheep/goats can be stressful. Under such circumstances, appropriate trimming tools are essential to do the job properly and easily. Any type of tool can be used as long as it gets the job done. A sharp knife can be used for hoof trimming, but requires harder work than using hoof trimmers meant for the job. Using a knife is also more dangerous for both the animal and operator.

Hoof trimming tools come in many shapes and designs. There are manual trimmers like those shown in Figure 3. These are generally not expensive and make the task much easier. Air compressor driven shears are an option if a very large number of sheep/goats are to be trimmed.

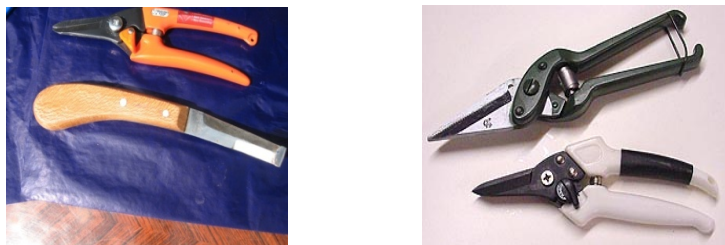
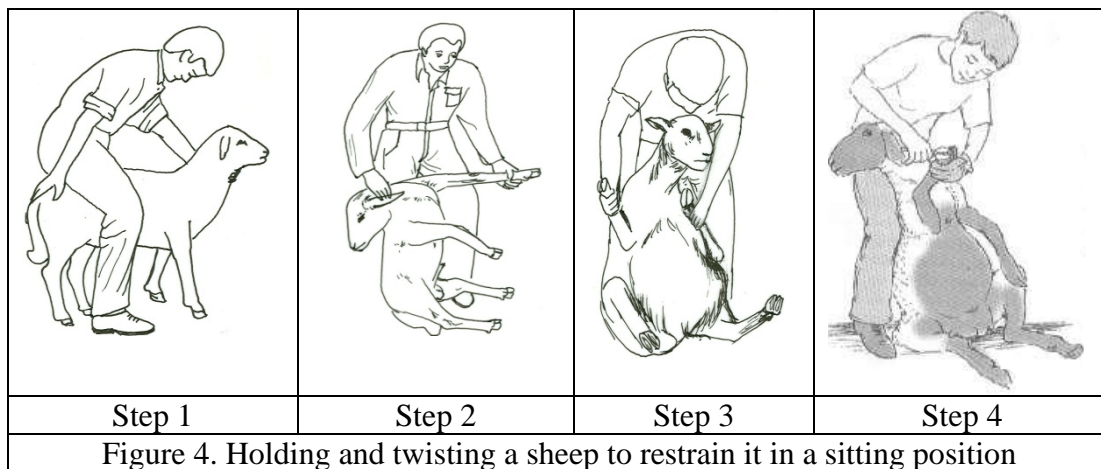


Figure 3. Hoof trimming tools

4. STEPS IN TRIMMING HOOVES OF SHEEP AND GOATS

Step 1. The first step in hoof trimming is to properly restrain the animal. The following procedures are recommended methods of restraint for the purpose of hoof trimming.

- **Sheep:** For small number of sheep, it is usually enough to tip the animal, and sit it on its rump, a position normally used for shearing (Figure 4). This can be done by standing on the sheep's left side, holding the jaw with the left hand and placing the right hand on the animal's hip (Step1, Figure 4). Hold the jaw tightly and bend the sheep's head sharply over its right shoulder while pressing down on the animal's right hip (Step 2, Figure 4). When the sheep falls to the ground, raise the front feet and head so the sheep rests on its rump and leans off center of the tail bone and against the person doing the trimming (Steps 3and 4, Figure 4).

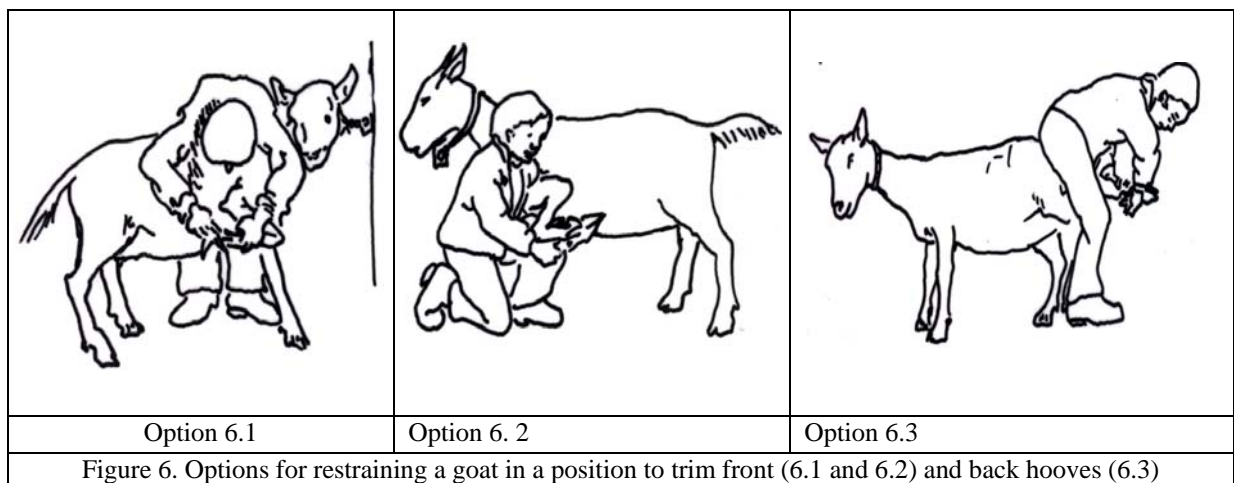


If a large number of sheep are to be trimmed, a bale of hay can serve as a rest during trimming. Other methods of restraint like the use of a squeeze table (Figure 5) may be necessary if a large flock has to be trimmed. Such handling equipment, if available, makes the job of hoof trimming easier.



Figure 5. Automatic squeeze table

- **Goats:** Goats can be trimmed while in a standing position. Hoof trimming is best done in a squeeze chute or by positioning or tying the animal next to a wall or fence and trim the hooves. This method of restraining goats allows the person doing the trimming to stand to the side of the animal and gently push it up against the fence/wall for extra control as needed. The person faces the animal's tail, leans down and picks up the front leg at the pastern so that the knee bends in a natural manner revealing the bottom of the hoof (Figure 6.1 and 6.2). It is important not to twist the leg way out to the side. This will force the animal off balance causing it to struggle in an attempt to stand more securely. For trimming the back hooves, the hind legs should normally be brought back straight behind the goat (Figure 6.1).



Step 2. After the animal is properly restrained, observe the color and check the smell of the hoof. A rotten smell is usually indicative of foot rot and appropriate treatment should be given. The next thing to do is to clean any mud, manure, small stones, etc., from between the walls of the hoof.

Step 3. Dry conditions can make hooves difficult to trim. The best time to trim hooves is immediately after rain or heavy dew, because the hoof wall will be much softer and easier to trim. Alternatively, animals can be allowed to stand in a wet area for 2 to 3 hours before trimming. The ends of the dewclaws can be the starting place for trimming (Figure 7). The tips of the dewclaws should be removed. It is important to remove small bits at frequent intervals to avoid bleeding as a result of cutting too short.

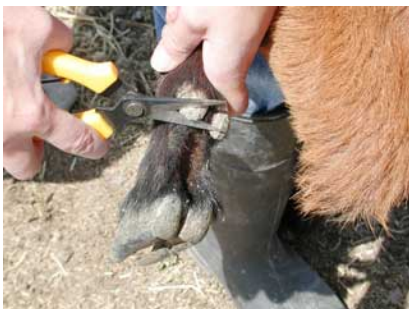


Figure 7. Cutting the ends of the dew claws

Step 4. It is always advisable to begin by removing very small pieces of hoof wall and toe. The toe

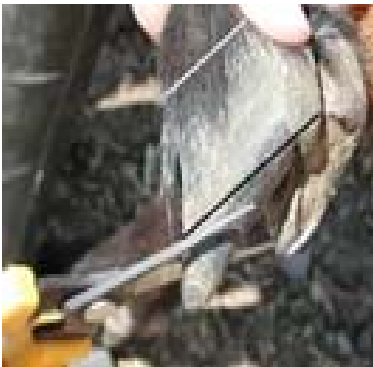


Figure 8. Trim hoof to a level (black line) to match the angle of the coronary band (upper white line on figure)

and outside hoof wall are trimmed down to where fresh sole can be seen (stop when the sole looks pink) and the bottom of the foot is parallel to the line where the hair stops known as the coronary band (Figure 8). This can be checked by letting the foot being trimmed down and checking the balance on the foot. This will help reduce the chances of over-trimming and entering the sensitive structures of the foot. Excessive trimming can lead to excessive bleeding, pain, infections and lameness.

The foot should be kept clean and free of debris for a few days following trimming. This will help prevent infections and possible problems with tetanus. If the hoof is extremely overgrown, you cannot expect to get a proper trim in one round of trimming.

Step 5: The inside wall of the foot should normally be trimmed a little bit lower than the outside.



Figure 9. Comparison of untrimmed claw (left) with trimmed claw (right)

This allows most of the animal's weight to be on the outside hoof wall where it should be placed naturally. The heel region can also be trimmed when needed. A plane or wood rasp can be used to help even up the surfaces and remove any dead sole. Once the entire trimming operation is completed, the animal should be released and examined for proper balance while the foot is bearing the weight of the animal. Corrective steps may be taken if problems of inappropriate trimming are observed.



Practice makes perfect. Hoof trimming is a skill that can take quite a bit of practice to perfect.

Figure 10. A fully trimmed foot

5. SUMMARY

Hoof trimming is one of the management activities on sheep and goat farms. This activity is more important in intensive management systems where the hooves can't effectively be trimmed through natural means. Attendants and/or other animal handlers should, therefore, inspect the condition of the hooves and trim as needed. Stepwise procedures of trimming sheep/goat hooves are described in this technical bulletin.

6. WHAT SHOULD THE DEVELOPMENT AGENT DO?

- **Train sheep and goat producers on the need for inspection of foot problems and timely trimming of hooves;**
- **Demonstrate the procedure of hoof trimming described in this technical bulletin.**