

Maintaining hoof health

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Maintaining hoof health

- Is it foot scald or foot rot?
- How do I eradicate foot rot?
- Do you have some animals that are perpetually infected?

University of Maine Sheep Foot Health Research & Education

<http://umaine.edu/sheep/>

Hoof care is an important aspect of small ruminant management.

- Hoof health can affect an animal's performance, disease resistance, and welfare.
- Hooves should be checked regularly for disease and excess or abnormal growth.
- Animals with diseased hooves or excessive or abnormal hoof growth should be **culled**.
- Lack of proper hoof care is an **ANIMAL WELFARE ISSUE**.



The need for hoof trimming varies.

- From every few months to seldom to never; average is probably once per year.
- Hoof growth is affected by many different factors, including species, breed, animal, nutrition, environment, and management.
- The more you trim hooves the more you trim hooves
- Over-zealous hoof trimming is discouraged. You should avoid drawing blood when trimming hooves.



What do you need trim hooves?

Proper equipment

- Hoof shears (trimmers)
- Hoof knife
(for thorough trimming)
- Spray bottle
(to spray zinc sulfate solution on trimmed hooves)
- Brush
- Tight fitting gloves
- Disinfectant
(to disinfect between animals)

Proper restraint

- Tip on rump (sheep)
- While standing - lift feet (goats)
 - While tied to gate
 - On milking or trimming stand
 - On elevated platform
- Chair (sheep)
- Manual or automatic tilt table

There are three primary hoof diseases.

Foot scald →



Foot abscess



Foot rot



Hoof diseases are bacterial infections.

Foot scald →

- Caused by bacteria (*Fusobacterium necrophorum*) that is present wherever there are sheep, goats, and/or cattle.
- Starts with irritation (due to trauma or moisture) of interdigital tissue.
- Results in redness or inflammation of tissue between claws.
- Outbreaks occur during periods of wet weather.
- Not contagious, but can be a precursor to foot abscesses and foot rot

Foot abscess

- Occurs when *Actinomyces* bacteria invade tissue already weakened by interdigital infection.
- Usually only affects one hoof or digit.
- Overweight and mature animals most vulnerable.
- Not contagious

Foot rot

- Caused by interaction of two anaerobic bacteria (*F. necrophorum* and *Dichelobacter nodosus*).
- *D. nodosus* is introduced to farm, usually in hoof of carrier animal.
- Involves separation of horny tissues of hoof.
- Using affects both claws and multiple hooves.
- Highly contagious
- **Difficulty to eradicate**
- **Can be a significant welfare issue.**

Facts about footrot

- Footrot is an introduced disease.
- There are different strains of foot rot.
- The bacteria that causes foot rot can survive in the hooves of chronically-infected animals for ~3 years, but only for ~14 days in the soil, manure, or pasture.
- Warm, moist conditions favor hoof disease.
- Livestock do not develop immunity to footrot; however, some animals are more resistant to it; genetic markers are being identified.



Treating and eradicating foot rot (and controlling foot scald)

US approach

- Hoof trimming and scoring
- Topical treatment (zinc sulfate)
- Foot bathing (zinc sulfate) and drying
- Isolation of infected animals
Move to clean area
(no sheep/goats for ≥ 14 days)
- Repeat
- **CULL** animals that fail to respond to treatment after 4 weeks

[University of Maine Foot Health Project]

European approach

- Antibiotic therapy
 - Sprays
 - Injections
 - Penicillin - OTC, ELDU
 - LA-200® - OTC, ELDU
 - Nuflur® - Rx, ELDU
 - *Zactran® - Rx, ELDU
- **CULL** animals that fail to respond to treatment.



Preventing foot rot

- It's all about biosecurity!
 - Maintain closed or mostly closed flock/herd
 - **Don't buy** animals with foot rot
 - **Don't buy** animals from farms or sales with foot rot.
 - **Don't buy** animals from sale barns.
 - Don't introduce foot rot via bedding, vehicles, equipment, or footwear.
 - Don't let your animals mixed with infected animals.
 - Assume new animals are infected.
 - Quarantine new animals for 30 days
 - Cull animals with excessive or abnormal hooves or hoof growth.





**Thank you for your attention.
Do you have any
questions or comments?**

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