Dairy Hoof Trimming

Proper functional and therapeutic hoof trimming in dairy cattle can reduce and help prevent lameness and can also improve productivity and overall animal wellness. Research shows that cows with healthy, pain-free hooves stay in the herd longer, have higher milk production and generate more long-term profit.

Choose a highly skilled hoof trimmer. The steps in this guide should only be done by properly trained personnel.

Proper Hoof Trimming Focuses on Four Things:

1. Returning the hoof to the correct length
2. Achieving weight distribution between the inside and outside claws on each foot
3. Correcting any claw lesions
4. Discovering and addressing other foot infections, issues or injuries

When to Trim*:

1. Trim all cows at dry-off and again at 90 to 120 days in milk
2. Trim springing heifers 6 to 8 weeks prior to calving

*Recommendations for when to trim may vary based on farm environment.

The Equipment You’ll Need:

- Chipper wheel or electric wheel grinder
- Hoof nipper
- Hoof knives
- Hoof tester
- Vet wrap
- Blocks
- Glue

Zinpro Hoof Check Tool:
Available from your Zinpro representative, this tool helps ensure proper claw length while maintaining proper heel depth and sole thickness.

Safety First:
We strongly recommend the use of personal protective equipment, including eye and ear protection and gloves.

About First Step®

The First Step Dairy Lameness and Assessment Program offers comprehensive resources to identify, diagnose and treat lameness, as well as helping dairy operations decrease the prevalence of lameness among cattle. The program was created by Zinpro Corporation and Dr. Nigel Cook, professor in the food animal production medicine section of the University of Wisconsin-Madison School of Veterinary Medicine.

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The Five-Step Dutch Trimming Method:

STEP 1:
Trim the inner claw of a rear foot.
Use the Zinpro Hoof Check Tool to determine proper toe length from the hairline to the tip of the toe. Trim by cutting perpendicular to the sole. The appropriate toe length is 3 ¼ inches for average Holstein cows and bulls. Never trim any claw shorter than this. Trim any excess sole in the toe area to a thickness of ¼ inch. When the sole is trimmed to the proper thickness, a white line will appear as a ring around the inside of the sole. A properly trimmed sole creates a flat, even, weight-bearing surface from toe to heel. Avoid removing heel horn from the inside claws on the rear feet. This will reduce claw angle.

STEP 2:
Use the steps above to trim the outer claw on the same foot.
The outer claw should be trimmed to the same length as the inner claw by making a cut perpendicular to the sole. Trim the outer claw sole to the same height as the inner sole to provide even weight distribution across the entire foot. Use the flat handle of the hoof knife to assess weight distribution within the claw and between the claws.

STEP 3:
Modeling the soles.
Proper modeling relieves pressure on most common sites for sole ulcers and helps prevent build-up of manure between the claws.

[Important tip: When modeling claws correctly, remember to protect the toe triangle and avoid cutting into the white line on the inside of the toe.]

STEP 4:
Identify and therapeutically trim any lesions.
Look carefully for any hemorrhages or abscesses in the sole or white line. A hoof tester can be used to identify painful areas in the claw. Also, evaluate the skin between the toes or on the heels for evidence of infectious claw lesions.

STEP 5:
Trim any loose horn.
Trim any loose horn in the heel area, trim down any visible ridges and remove all necrotic tissue.

Most Common Lesions:
- WHITE LINE
- SOLE ULCER
- TOE ULCER
- FOOT ROT
- DIGITAL DERMATITIS

Dairy Cow Foot Anatomy

Causes of Infectious Lesions:
1. Poor hygiene or less-than-optimal trace mineral nutrition/nutritional insufficiency
2. Skin barrier incompetence, which allows bacteria to more easily penetrate the skin and migrate into deeper tissues
3. Biosecurity issues where the disease is introduced to the herd from an outside source
4. Environmental extremes such as warm, wet weather