Hoof Trimming Fundamentals

Proper claw trimming forms the foundation of a comprehensive foot health program. By applying certain claw trimming fundamentals, one can help reduce the risk of lameness caused by hoof trimming miscues.

The most widely accepted method of trimming is the Dutch technique (also known as the Toussaint-Raven method). This technique aims to:

- Balance the weight distribution between the inner and the outer claws.
- Restore claw angle by establishing proper length of the hoof dorsal wall.
- Produce a level weight bearing surface across the sole and between the claws.
- Model the axial groove area to improve drainage between the claws and to relieve some of the pressure at the typical sole ulcer site.

In order to complete this technique successfully, some formal training in hoof trimming is essential.

Trimming Article Available

To learn more about the fundamentals of claw trimming, get your copy of Dairy Cattle Claw Trimming Basics. Authors Dr. Jeff DeFrain and Dr. Luis Rodriguez, from Zinpro Corporation, discuss key hoof trimming fundamentals.

Highlights from this article series include: why to trim cow’s feet, understanding anatomy of cow’s feet, functional claw trimming and common mistakes in trimming.

Request your copy by contacting your Zinpro representative.

Contact your local Zinpro representative to learn more about the basics of functional hoof trimming.

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Avoid These Six Common Trimming Mistakes

Click on an item below to reveal more information about each trimming mistake.

1. The dorsal wall of the claw is trimmed too short.
2. Heel horn is removed on the inner claw of the rear foot.
3. The inside wall is removed at the toe of either inner or outer claw, or both.
4. The sole is sloped toward the axial groove and the weight-bearing surface is made concave.
5. The outer wall is removed at the toe and around the side of the claw.
6. The sole is too thin after trimming.

1. **Dorsal Wall Too Short**

   The inner and outer claw should measure 7.5 cm from the coronary band to the toe on Holstein cattle. Measurements shorter than this result in the sole becoming too thin.

Maintenance Trimming Schedule

It is recommended that dairy cows receive a maintenance trim/claw examination at dry-off and again at around 150 days in milk. Cows with longer lactations may need to be trimmed/examined twice during lactation.

For heifers, it is recommended to conduct a maintenance trim at about two months prior to calving. This helps to establish proper claw conformation and gives the heifer time to adjust to any conformation changes before the onset of lactation.

Claw Anatomy and Terminology

Left Rear Foot or Right Front Foot

- Bulb
- Wall
- Sole
- White Line
- Interdigital Space

The sole can and should be concave in the modelled central region of the sole.

Coffin Bone and Joint

- Coronary Band
- Coronary Cushion
- Dorsal Wall
- Digital Cushion
- Sole
- Bulb
New Claw Lesions Survey Results

Dr. Jeff DeFrain, Zinpro Corporation Research Nutritionist, recently surveyed claw lesion records from 17 dairies located throughout the U.S. as well as two international herds located in the southern hemisphere. Claw lesion data from approximately 40,900 cows were collected from July 2007 through April 2010. The objective of this survey was to summarize the presence of common claw lesions on confinement dairies and assess the distribution of lesions by season, lactation number and days in milk. The collected data provides an initial database for benchmarking of claw lesions in commercial confinement dairies.

Key Findings:

- White line lesion, sole ulcer, digital dermatitis and foot rot comprised 93% of lesions for herds recording only lame events and 40% of lesions in herds recording lame and trim events (excluding routine trims with no lesions, 55%).
- The ratio of infectious to non-infectious lesions decreased with increasing lactation number (P < 0.01).
- Digital dermatitis and foot rot were greatest in the first 60 days in milk and differed acrossparity (P < 0.01).
- Non-infectious lesions were most prevalent during the three months following heat stress, whereas infectious lesions were greatest during the coolest quarter of the year.
- These data indicate that 1) infectious claw lesions predominate in early lactation and during cooler months of the year, and 2) distribution of non-infectious lesions follows a typical lactation curve.

Conclusions:

- Infectious claw lesions appear to be the most troublesome in the first 120 days in milk, especially in lactation one (L1) cows.
- Non-infectious claw lesions were largely associated with lactation two (L2) and lactation three or more (L3+) cows that were either at or near peak milk production.
- These data provide an initial database for benchmarking of claw lesions in commercial confinement dairies.

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First Step® Training Session Held in New Zealand

Zinpro Corporation recently hosted a First Step® Lameness Assessment and Prevention program training session in Ashburton, New Zealand. Fifteen prominent veterinarians and nutritionists from Australia and New Zealand had the opportunity to learn from Zinpro’s team of leading industry lameness experts about key aspects of First Step. They also gained practical on-farm lameness assessment skills while visiting two dairy farms in the Ashburton area.

Availa®4 Benefits Dairy Operations

From improved lactation performance, udder health, reproduction and overall hoof condition, Availa-4 is backed by multiple research studies showing proven responses and a strong return on investment.