

# FUNCTIONAL AND CORRECTIVE HOOF TRIMMING

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Lameness, a multifactoral disease, is no doubt one of the biggest problems dairy producers are facing today. There are many elements contributing to lameness on modern dairy operations: concrete, standing time, cow comfort, walking distance, nutrition, hygiene, and claw trimming.

## **Biomechanics**

Research has shown the rear lateral claw is more prone to lameness with over 80% of lesions occurring in this claw. Over years of experience in the field, I have formed the opinion that the reason for this is the way the rear lateral claws are used and/or abused. The rear medial claws are more stable and the wear to growth ratio is almost equal. The way the lateral claw of the hind feet receives the motions of impact is not the way nature intended it to be used. The impact is more of a sideways or whipping motion rather than a downward motion. As a result, the lateral claw wears less and within time the claws begin to grow out of balance. This imbalance leads to uneven weight distribution and increased pressure to the corium, especially near the rear of the pedal bone. If the pressure is great enough and prolonged, permanent damage occurs. Damaged corium produces damaged horn, which begins the vicious cycle.

## **Functional Trimming**

Scheduled, functional trimming can prevent the vicious cycle from starting. *The goals of functional trimming are to distribute the weight evenly between the two claws of the foot, to leave sufficient horn to protect the corium, and to trim the claws to their normal shape and proportion.* It is essential to have the best balance and weight distribution of the two claws during high stress periods and during nutritional changes. It only makes sense to start a hoof maintenance program three to six weeks prior to calving. This will guarantee the best possible function of the claws during the vulnerable early lactation period. A second trim should follow at 110 days into lactation. Cows with extended lactation must be trimmed every 120-150 days. Include springing heifers in a maintenance trimming program.

## **Corrective Trimming**

Cows that appear lame must be treated immediately to prevent long-term complications. Good, corrective procedures will speed up recoveries of clinical lameness. As an aide in healing the diseased claw and to reduce wear to the healthy claw (typically the lateral claw and medial claw, respectfully), claw blocks or orthopedic soles must be used. Furthermore, lame cows should automatically be put on a high maintenance cow list. It is necessary that problem cows be trimmed every 60 days to interrupt the vicious cycle of lameness.

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