

Cow Hoof Trimming Pointers Given At Demonstration

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— A cow hoof trimming talk and demonstration was presented on the farm of Glen Henry earlier this month. Dr. Dale Moore of the Penn State Veterinary Science Department gave information as to why regular care of the hooves is necessary for the good health of the animals.

The overview of her talk concerned the anatomy of the cow's foot, weight bearing, foot trimming guidelines and diseases of the hoof. She also presented facts concerning lameness in dairy cattle which causes severe pain and discomfort, resulting in lower milk yields, reproductive inefficiency, etc. Studies have shown that over 90 percent of lamenesses are from foot problems, with most of those problems in the rear feet.

Dr. Moore pointed out further that the potential causes of lameness are management, environment, nutritional imbalances, disease and genetic factors. She passed around to the group actual lower legs of dead cows to illustrate the various parts of the foot and its problems, and to compare the back with the front foot.

She stressed that the hoof is alive and therefore it has an anatomy as any living thing has. The hoof wall, sole and heel are made of keratin (like the cow's horn) and water. This means that the structure does not provide a very thick covering for the tissues which contain nerves and blood vessels. The keratin in the hoof is replaced every year.

The hoof grows at a rate of about two inches per year, depending on the environment, nutrition and genetics of the cow. The rate of hoof growth is greater in the rear feet than the front, and the hoof grows fastest during Spring and Summer. It was noted that the outer layer of the hoof is important for retaining moisture, and so it must not be sanded or rasped off during trimming as this could cause it to dry out and crack.

The sole has the same composition as the hoof wall but is softer and only one-half inch thick. It must not be perforated or trimmed too much as this would expose the sensitive parts, leading to bleeding, pain and lameness. She added that the softest area is the white line between the hoof wall and the sole. This area accumulates dirt and stones and needs to be cleaned before trimming.

Developing further the idea of weight distribution, Dr. Moore pointed out that a hoof responds to heavier weight-bearing by depositing greater amounts of keratin. In young animals, the weight is rather evenly placed around the hooves, but in mature cows more weight is put on the outside walls of the rear feet. So this is where they have more overgrowth and need more trimming.

Dr. Moore said further that the inner walls of the front feet bear more weight as the cow matures. The bulbs of the heels are not normally weight-bearing surfaces but, with exaggerated overgrowth of the hoof horn, the body weight shifts and the bulbs of the heel come into contact with the ground. Since the bulbs are more like skin and are loaded with nerves and blood vessels, they are more sensitive. Some cows with excessively

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Paul Neer, Juniata County foot trimmer, gives demonstration on grinding necessary portions to trim hooves.

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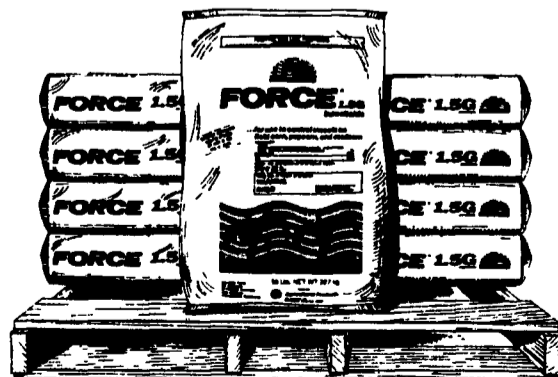
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