

Hoof trimmer training and safety hazards on California dairies

M. Pineda, DVM¹; I. Akin, DVM, PHD²; N. Silva-del-Rio, DVM, PHD¹

¹Veterinary Medicine Teaching and Research Center, UC-Davis, Tulare, CA 93274

²Department of Surgery, Faculty of Veterinary Medicine, Adnan Menderes University, 09016 Aydın, Turkey

Introduction

Lameness and hoof lesions are important economic and animal welfare issues on dairies. Preventive and therapeutic trimming is a common management practice on modern dairies. On most California dairies, outside service providers or in-house dairy employees are in charge of hoof trimming tasks. Despite the relevance of hoof trimmer work on cow health, the quality of their work is rarely monitored by managers or veterinarians. The objective of this study was to describe how California hoof trimmers learned their trade and what safety hazards they are facing at work.

Materials and Methods

The study was conducted in California Central Valley. Twenty-seven hoof trimmers (HT) from 23 dairies were enrolled in the study. Participants were in-house dairy employees (n=17) or outside service providers (n=10). Two dairies had 2 hoof trimmers: in-house for lame cows and outside HT for dry cows, whereas 1 dairy had 3 in-house HT. Researchers visited with HT at their workplace while they were trimming feet. A survey was conducted with questions grouped in 4 themes: a) prior training and experience, b) trimming tools, c) therapeutic drugs used, and d) safety hazards and injuries sustained while trimming. Researchers completed the survey by interviewing hoof trimmers and observing their practices at work.

Results

Trimming experience ranged from 1 to 5 years (n=8), 5 to 10 years (n=12), or >10 years (n=7). All outside HT had >5 years of experience. Trimming was a skill that was learned from another HT (n=22), at a workshop (n=3), or it was self-taught (n=2). Twelve HT had attended a continuing education event at least once. In-house HT had additional responsibilities such as milking, facilities maintenance or op-

erating equipment. All HT used tilt tables, except 1. Most HT used single-blade knives (for both hands) and an 11,000 rpm electric grinder (chipper wheel disc (n=17); sand abrasive disc and/or carbide disc (n=9)). All HT had hoof testers and nippers but they were rarely used (n=8). None of the HT used injectable drugs or analgesia. All HT used tetracycline soluble powder, but the amount used was never measured and it was inconsistent within and across dairies. Soluble tetracycline powder was used on open wounds alone (n=10), mixed with 7% iodine (n=7), vegetable butter (n=3), 70% alcohol (n=2), aloe vera cream (n=2), propylene glycol (n=1), soap (n=1) or liquid oxytetracycline (n=1). All lesions treated with tetracycline were wrapped. Bleeding lesions were often cauterized with a hot iron (n=16). Blocks used were wood (n=11), plastic (n=1) or wood and plastics (n=5). Nine HT used various block sizes. Twelve HT cleaned their knives at the end of the day, but only 6 used disinfectant solution. Most (n=15) hoof trimmers used protective glasses or masks during trimming (53% in-house and 60% of outside), whereas protective gloves were only worn by 12 HT (35% in-house and 60% of outside service providers). Seventeen HT reported to be injured (mostly cuts) at least 1 time while performing trimming tasks. Seven outside service providers reported to be injured at least 10 times. Four trimmers sustained injuries that required a leave from work from 2 (n=2) to 4 (n=2) weeks. Severe injuries were sustained after a cow kick.

Significance

Although most HT learned trimming skills from another colleague, continuing education events were still of interest to many of them. Cleaning knives between cow treatments is a practice scarcely implemented, and that could increase the risk of infectious disease transmission. Criteria to apply tetracycline were not consistent within and across trimmers. Although most HT reported to be injured, protective attire was not always used.