

Evaluation of the use of footbath and lameness prevalence in dairy farms of Mashhad

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Received: 17.01.2025

Accepted: 09.03.2025

Abstract

Lameness as one of the significant and common issues in dairy cows, has considerable economic and health impacts on dairy farms. The use of footbaths with various antibacterial agents is a key strategy in many livestock approaches to control infectious hoof diseases. Numerous studies have shown that regular footbaths are associated with a lower prevalence of lameness. In the present study, 12 dairy farms with more than 100 lactating cows were included and then divided into two groups (less than 200 cows and more than 200 cows). Data related to the dimensions of the footbaths (length, width, and depth) and aspects related to the management of footbaths, such as the type of disinfectant and the frequency of refreshment, were recorded and compared with global standards. The results indicated that only half of the farms had footbaths, most of which footbaths did not meet standard dimensions. The average length, width, and depth of the footbaths were 225.61 cm, 128.96 cm, and 11.55 cm, respectively, which significantly differed from the minimum global standards (length: 350 cm, width: 60 cm, and depth: 15 cm). The prevalence of clinical lameness (scores 4 and 5) was reported to be 14.5% across all farms. However, no significant correlation was found between the presence and/or absence of footbaths and the prevalence of clinical lameness (Spearman's rho, P-value=1.00). This study indicated that despite the key role of footbaths in preventing and controlling infectious hoof diseases, the proper design and management of footbaths in the studied farms are not adequately addressed. The findings emphasize the need for improved footbath design, using appropriate disinfectants, and training of workers to reduce the prevalence of lameness. Attention to standardizing footbaths and implementing scientific protocols can significantly enhance the health and productivity of livestock.

Key words: Lameness, Footbath, Infectious hoof diseases, Prevalence of lameness, Dimensions of the footbaths

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