RISK FACTORS FOR LAMENESS IN HOUSED COWS IN SOUTHERN CHILE

Juan David Córdoba Parra¹, Gerardo Acosta Jamett², Néstor Tadich Babaic²

¹MSC Program, ²Faculty of Veterinary Science, University Austral of Chile. FONDECYT 1090373 Project, Valdivia, Chile

Introduction: Recommendations for housing of dairy cows includes the maintenance of an adequate structures and well management of cows. The hallways surface must be soft and nonslippery to protect hooves and avoid cows get hurt. Cows need space to socialize, rest, eat and drink without agression between them in these areas, which might result in health problems and economic looses. Footbaths are recommended to improve hooves hardness. Functional claw trimming is related to prevent hoof lesions.

Objective: To determine the risk factors for LAMENESS in housed dairy cows in southern Chile.

Methods: 47 Dairy farms with 14,908 cows and housing system in the IX, X and XIV region of Chile were visited from June to November of 2009. Farmers were asked about the number of lactating cows and the number of lame cows. Information about management practices (footbaths protocols (FP), hours that cows were housed daily, frequency of cleanliness of the hallways, functional claw trimming) were collected, and the hallways, feed and water trough and entrance to the milking parlour were characterized. Univariable Logistic regression analysis followed by a multiple logistic regression were used with the program STATA 10® to determine the housing risk factors for LAMENESS, considering significant factors ($P\leq0.05$).

Results: Risk factors that explained the presence of LAMENESS in dairy cows ($P\leq0.05$) were the hours cows were housed daily (11 or 24 hrs), type of surface flooring on the hallways, FP, lack of functional claw trimming and the length of the feed trough. Housing of cows for 11 hours daily was related to inadequate pathways and long distances that cows have to walk over every day. Concrete rough surfaces of the shed hallways vs concrete slated, straight floor and straw floor could be related to LAMENESS because of its irregular and rough surface which could induce lesions on animal’s hooves. Non FP increased the prevalence in 1.9 times. Lack of functional claw trimming increased the prevalence of LAMENESS in 1.3 times. Farms with more length in the feed trough for each cow had more prevalence of lame cows; this result was associated to the possibility of having the biggest prevalences of LAMENESS due to other factors.

Conclusion: The prevalence of LAMENESS is related to deficient shed designs and wrong management of the dairy cows in southern Chile, which might implicate less cow comfort, and economic losses.

Keywords: Risk factors for LAMENESS, housing system.