Claw Horn Lesions In Fraser Valley Dairy Herds

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Claw horn lesions on the hoof are one of the principal causes of lameness in dairy cattle, but the extent of the problem within Canada is unknown. My aim was to describe the prevalence of claw horn lesions in dairy cattle from the Fraser Valley of British Columbia and also evaluate individual cow risk factors as well as farm nutrition, management and environment factors that are most associated with claw horn lesions in this area. We recorded the number, severity and location of lesions in the claws of 624 Holstein cows from 20 herds during hoof trimming.

Lesions were found in cows from all herds. The mean (± S.D.) herd prevalence of cows with at least one lesion was 85.7 ± 13.8%. The mean (± S.D.) herd prevalence of cows with at least one severe lesion (severe haemorrhage or ulcer) was 34.9 ± 15.1%. Within the cow, we found differences in the number of lesions observed on different claws, with the hind lateral claws containing the most lesions ($P<0.0001$). Overall, the hind lateral claws contained 54.9% of the lesions followed by the front medial (17.7%), the hind medial (16.4%) and the front lateral (10.9%).

We found several individual cow risk factors. Primiparous cows were at greater risk for claw horn lesions at the beginning of their lactation ($P<0.001$) while multiparous cows were more likely to have visible lesions in mid- to late-lactation ($P<0.01$). Overall, cows with higher body condition scores were less likely to have lesions than those with lower scores ($P<0.001$). In terms of farm factors, cows were more likely to have lesions on farms with computer grain feeders ($P<0.01$), high steps ($P<0.01$), automatic alley scrapers ($P<0.01$) and flooring imperfections ($P<0.05$).

In conclusion, claw horn lesions affect the majority of dairy cows in the Fraser Valley. The risk of lesion development is related to individual cow factors as well as farm feeding practices and environment characteristics.