

On-line benchmarking of welfare assessments on dairy farms to help producers to improve welfare

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Hock lesions and lameness were assessed on 4,652 Holstein cows from 80 farms, within the Maritime Provinces of Canada. These farms consisted of 34 tie-stall and 46 free-stall facilities. All assessors in this study were trained and reached a target agreement ($\kappa \geq 0.6$) prior to conducting assessments on-farm. Lameness was determined using gait scores or tie-stall lameness scores, which assessed foot placement and weight distribution. Hock lesions were scored on a 4 point scale (0-3) based on amount of hair loss, swelling and presence of broken skin. These outcomes, along with facility and management factors required or recommended in the Canadian Welfare Code of Practice for Dairy Cattle, were used to determine scores for 12 critical areas of cow welfare, for example hoof health and stall management. Scores were calculated using equal weighting of specific targets within each critical area, based on a welfare assessment developed by Vasseur *et al.* The within herd prevalence of hock lesions ranged from 0-83% and the within herd prevalence of lameness ranged from 0-52%. These results indicate that a low prevalence of lameness and hock lesions on dairy herds is achievable. The critical area scores, along with the prevalence of hock lesions and lameness within the herd, were reported to the producers through an online benchmarking system (www.benchmarkcowcomfort.com). This website is being used to track which producers access the website and the amount of time the participants spend online. Benchmarking welfare assessments can motivate producers to make improvements to reduce injuries and lameness in their herds. To assess the effect of benchmarking, after a 6-month interval, the animal-based outcomes will be re-evaluated on the participating farms during spring 2017. It is hypothesized that the within herd prevalence of injuries and lameness will be reduced in comparison to the initial assessments.