

The impact of making freestall changes on lameness, lying time and leg injuries

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Cow comfort is of great importance in the dairy industry, due to an increased focus on animal welfare. However, the impact of changing a cows' environment on cow comfort has not been well characterized. Our objectives were to: 1) quantify impact of freestall area changes on prevalence of lameness, leg injuries, and average daily lying time; and 2) compare cow comfort outcomes on farms that have never had an assessment of cow comfort to farms that had a previous assessment of cow comfort. A sample of 60 Holstein-Friesian cows was selected on three groups of farms: 15 farms that made changes to the freestall area (CHANGE group) after an assessment of cow comfort; 15 farms that did not make changes to the freestall area (NOCHANGE group) after an assessment of cow comfort; and 14 farms that have yet to be evaluated for cow comfort (NEW group). Cows on NOCHANGE and NEW farms were 1.50 and 1.71 times more often lame compared to cows in the CHANGE farms, respectively. Additionally, daily lying time was 0.33 and 0.62 h/d shorter in the NOCHANGE and the NEW farms, respectively, compared to CHANGE farms. No differences were detected in the prevalence of hock and knee injuries among the 3 study groups. Additionally, there were no differences when comparing NEW farms with the NOCHANGE farms. We concluded that the NOCHANGE group had not been influenced by the results of a previous assessment of cow comfort, and that those groups were comparable over time. Farms in the CHANGE group had a lower number of lame cows, greater average daily lying time and less knee injuries when compared to the NOCHANGE and NEW groups, indicating that changes in free-stall design and management improved important measures of cow comfort.

Implications: These results demonstrate the importance and impact of improving dairy cow environments.