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Assessing dairy cow welfare at the beginning and end of the indoor period using the Welfare Quality[®] protocol

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Abstract

The Welfare Quality[®] (WQ) project developed protocols as international standards for farm animal welfare assessment. For dairy cattle, the WQ protocol may be performed any time during the indoor period when the herd has no access to pasture. However, timing of welfare assessments during the indoor period might influence the outcome, as pasture access influences many welfare aspects and such effects are likely to carry over to the beginning of the indoor period. In order to test this hypothesis, we assessed ten herds at both the beginning and end of the same indoor period. Assessment at the end of the indoor period resulted in a higher prevalence of the following welfare measures: severely lame cows, mild integument alterations, coughs per cow per hour, diarrhoea, and vulvar discharge. In addition, at the end of the indoor period, the mortality rate was higher and the Qualitative Behaviour Assessment (QBA) score was worse, but there were fewer cows with dirty udders and mean time to lie down was lower. This led to worse scores on the criterion and principle levels of WQ integration, but resulted in a lower welfare categorisation for one of the herds only. The better scores for several aspects of health and for the QBA at the beginning of the indoor period not only confirm the carry-over of positive effects of access to pasture, but also imply a need for careful consideration of the timing and frequency of WQ assessments of herds that are housed outdoors for part of the year.

Keywords: animal welfare, dairy cattle, pasturing, welfare assessment, Welfare Quality[®]