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Welfare assessment in traditional mountain dairy farms: above and beyond resource-based measures

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Abstract

The Welfare Quality® project was one of the largest research undertakings into animal welfare. Despite animal-based measures (ABMs) being increasingly preferred over resource-based measures (non-ABMs), the Welfare Quality® protocol (WQ) for dairy cattle has a non-ABM, Ease of Movement that classifies housing systems using a threshold of 100 days of access to pasture or, inversely, of 265 days tethered. Since traditional transhumance to alpine pastures lasts for approximately 90 days most farms tend to be classified as having a year-round tie-stall system by the WQ. The aim of this study was two-fold: to discuss the appropriateness of using non-ABMs and related thresholds in welfare scoring and to classify mountain dairy farms using ABM records. Initially, a comparison was made with scores obtained using the WQ protocol in farms where cows were: i) tethered all year; and ii) tethered but having regular exercise or reared in loose-housing systems. No difference in terms of welfare was detected between groups of farms regarding their housing systems, thus we investigated welfare focusing on ABMs. Therefore, farms were grouped into four clusters, according to their ABMs. The results indicated that good ABM scores can be obtained in most traditional mountain farms where cows are tethered for around 275 days a year and have access to highland pasture for the remaining 90 days. In this study, ABMs were effective tools for classifying mountain farms according to their welfare status and for informing targeted action to improve dairy cow welfare.

Keywords: *alpine farming, animal-based measure, animal welfare, dairy cattle, small-scale farm, tie-stall system*