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Development of a welfare assessment protocol for dairy calves from birth through to weaning

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Abstract

The aim of this study was to develop a welfare assessment protocol using different indicators, for pre-weaned dairy calves, that is feasible and time efficient. To this end, the protocol had to combine animal-based indicators (measurements on physiology, general appearance and behaviour) providing the basis for welfare assessment, with resource-based indicators (measurements on management and the environment) providing the basis for identifying risk factors. Indicators, both animal- and resource-based, were selected by a review of existing literature and a process of expert consultation. Following the formulation phase, the protocol was then applied on five Irish dairy farms to develop further for completeness and on-farm feasibility. After each on-farm application, the protocol was critically evaluated, and modifications were made accordingly. Upon completion of the on-farm application phase, a feasible, reliable and time-efficient protocol was produced.

Keywords: *animal welfare, behaviour, dairy calves, health, housing, management*