



1. Animal Welfare Workshop

Title presentation

Animal Welfare Assessment: Can We Develop a Practical, Time-Limited Assessment Protocol for Pasture-Based Dairy Cows in New Zealand?

Author(s)

Sujan Sapkota *, Richard Laven , Kristina Müller and Nikki Kells

Institution for which the first author of this abstract is working

School of Veterinary Science, Massey University, Palmerston North 4442, New Zealand;

Abstract

Despite being a leading producer and exporter of dairy products, New Zealand has no industry-recognised welfare assessment protocol. A New Zealand-specific protocol is essential, as almost all dairy farms in New Zealand are pasture-based and housing is rarely used. Therefore, protocols developed for intensive cows are not suitable. The aim of this study was to develop a simple yet practical welfare assessment protocol that could be used to assess the welfare of a dairy herd during one visit timed to occur around milking with a special focus on animal-based measures as they reflect the current welfare status directly. Six welfare assessment protocols and four studies of dairy cattle welfare assessments that had some focus on dairy cattle welfare at pasture were used, along with the New Zealand Dairy Cattle Code of Welfare, to identify potential indicators for inclusion in the protocol. Eighty-four potential indicators (20 record-based and 64 that needed assessing on-farm, including 36 animal-based, 23 resource-based, four management-related, and one stockmanship-based measure) were identified by this process. After screening to exclude on-farm indicators that were not relevant, that had only limited practical application in pasture-based dairy cows, or that required more time than available, 28 on-farm indicators remained (including 20 animal-based measures). These were combined with the 20 record-based measures and were trialled for feasibility, practicality, and time on two pasture-based dairy farms (one with a rotary parlour and the other a herringbone). Indicators were then identified as not feasible, suitable after modifications, and suitable based on the trials. A total of eight animal-based measures were rejected at this point. Reasons for rejection included difficulties in assessing due to lack of suitable spots, time constraints, and practical considerations. Modified measures were then included in the final protocol alongside five additional measures (including one additional animal-based measure) of relevance to New Zealand dairy farms. Modification was carried out to facilitate the scoring process, manage time and increase scoring coverage. The final protocol included 13 animal-based measures. Further testing of these measures is needed on more dairy farms across New Zealand before the protocol can be used to routinely assess the welfare of dairy cows in New Zealand.

Keywords: Welfare assessment protocol, New Zealand, Animal-based measures