



ProWelCow – dairy cow welfare

ProWelCow was a year-long desk-based project to identify risks and protective strategies for cow welfare associated with dairy herd expansion.

Irish systems of milk production have a marketing advantage over countries where milk is produced from housed cows. This is because consumers perceive pasture-based systems as more 'natural' and, therefore, better for cow welfare. While there is a lack of epidemiological data on cow welfare in pasture-based systems, Teagasc research demonstrated several welfare benefits associated with access to pasture (Olmos *et al.*, 2009). However, intensification in the dairy industry following the abolition of the EU milk quota regime means there is a risk that such advantages could be eroded (Boyle and Rutter, 2013).

In order to address these concerns, ProWelCow completed four tasks: 1) a survey to determine housing and management practices with implications for cow welfare (dairy farmers [n=115], cattle veterinarians [n=60] and Teagasc dairy advisors [n=48]); 2) a review of the Economic Breeding Index (EBI) in relation to welfare; 3) a review of Bord Bia's Sustainable Dairy Assurance Scheme (SDAS) and similar schemes abroad; and, 4) semi-structured interviews with 30 agri-industry stakeholders.

Current practices on Irish farms

The majority (77%) of farmers surveyed had increased their herd size in the previous three years. There was no more investment in housing or roadways on farms that expanded than on those that did not. Vets (90%) and advisors (87.5%) agreed that the best way to herd cows is on foot. More than 30% of farmers used quads/tractors to herd cows;

on those farms, herds were larger than herds where cows were herded on foot (152.7 vs. 99.0 cows). The lack of investment in roadways, combined with the potential for faster herding and longer walking distances in large herds, pose lameness risks. Furthermore, the lack of investment in housing poses risks of overcrowding; 32.9% of farmers provided <1 cubicle/cow. Low body condition score (BCS) was ranked as the main welfare issue by a higher proportion of farmers (72.2%) than vets (13.9%) or advisors (13.9%). More vets selected lameness as the main cause of poor welfare (28.3%) than farmers (13%) or advisors (2.2%). All stakeholders agreed that there are more threats than benefits to dairy cow welfare associated with dairy herd expansion.

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Breeding cows for better health and welfare

Many existing indicators of cow welfare do not fulfil the criteria for inclusion in the EBI because they are not easily or cheaply measured. Genetics can play a role in improving cow welfare by reducing the incidence of lameness and mastitis. Lameness and somatic cell count are in the health sub-index of the EBI. However, there is a case for strengthening the current weighting on lameness. Furthermore, the absence of data on clinical mastitis means that high accuracy of selection for mastitis itself is not possible.

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Evaluation of dairy assurance assessment schemes

Bord Bia's SDAS, the RSPCA/Freedom Food's AssureWel (UK), Friesland Campina's Cow Compass (NL) and Arla's Arlagarden (DK) were evaluated. All schemes claimed to assure cow welfare to a greater (e.g., AssureWel) or lesser (e.g., SDAS) extent. With the exception of the RSPCA's AssureWel, all schemes were deficient in assuring cow welfare because most of the indicators used were poorly defined and little information was provided to assessors on how to measure them. No scoring scales or sample size estimations were provided, and there was no information on their validity for on-farm use. Many of the schemes relied more heavily on the inspection of records than of the animals themselves. Critically, no animal-based indicators specific to pasture-based systems were identified in any of the schemes.

Stakeholder perceptions about cow welfare

Welfare was viewed by many as an essential component of the 'green Ireland' brand. Several stakeholders believed that poor cow welfare is not a problem, as they felt that measures are in place to protect animals. Such complacency poses risks to cow welfare. On the other hand, interviewees across several stakeholder groups recognised the potential threat to welfare posed by herd expansion and the focus on low-cost production. Poor financial viability and mental health challenges for farmers were also seen as risks to cow welfare. Increasing demands from international buyers were cited as the most important factor driving the focus on good cow welfare. Bord Bia's SDAS was well regarded, though some thought it should be extended to better address cow welfare issues. More focused training of advisors in cow welfare would improve their dissemination of relevant knowledge.

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Main findings:

- Poor BCS, overcrowding during housing and lameness are all potentially important causes of poor cow welfare in expanding, low-cost, pasture-based systems;
- In the short term, there is a pressing need for focused knowledge transfer on dairy cow welfare;
- In the medium term, research is required to identify animal-based indicators relevant to pasture-based systems, new welfare traits, new ways of deriving weightings for such traits and ways of improving routine access to data on these or correlated traits;
- Additionally, the current weighting on lameness in the EBI needs to be strengthened and animal-based indicators relevant to welfare (e.g., locomotion scoring) need to be included in the SDAS; and,
- In the long term, there is a need for investment in housing and infrastructure.

References

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