

MEASURING MOTIVATIONS AND PREFERENCES IN DAIRY CATTLE: A SCOPING REVIEW**Emma Jensen¹, Margit Jensen¹, Heather Neave¹ and Melissa Bateson²**¹ Department of Animal and Veterinary Science, Aarhus University, Tjele, Denmark² Biosciences Institute, Newcastle University, Newcastle upon Tyne, UK*emma.hvidtfeldt@anivet.au.dk*

Measures of motivation and preference guide design of housing and management that accommodate the behavioural needs of farm animals. However, motivation and preference can be difficult to assess. Dairy cattle are most commonly housed indoors, and research has increasingly assessed the preferences and motivations of this species. Therefore, the scoping question of this review was “Which types of motivations and preferences in dairy cattle have been assessed so far, and which methodological approaches have been used?”. A search for literature using specific search criteria on Web of Science’s Core Collection resulted in 5222 papers, of which 345 were included after the screening process. Some papers covered multiple measures of motivation or preference; to simplify the analysis, each measure was analysed as its own entry, resulting in a total of 567 data entries. Most of the studies (78%) were done on female cattle, and just over half of the studies (55%) were conducted on mature animals. The majority of preference studies concerned either feed preference (40%) or preference for the structural environment (31%; e.g., stall design or walking surface), while the most commonly assessed motivation (41%) was fear of humans or novel objects. Fewer studies concerned the animals’ social preferences and motivations (8% for both categories). The methods used differed between types of preferences and motivations. For preferences, simple choice tests were most common (80%), while motivations were mostly assessed through measures of consumption of a given resource (47%), or by using approach/avoidance measures (45%; likely due to fear being the most commonly assessed motivation type). Few studies (1% of preference assessments and 5% of motivation assessments) utilised consumer/demand approaches (e.g., elasticity of demand or maximum price paid) to quantify motivation or preference, and these methods utilised on average a lower sample size than other methods. This scoping review reveals some research gaps, e.g., in the preferences and motivations of adult male animals, in preferences related to aspects other than feeding and housing, and in motivations other than fear. For instance, given the increasing interest in positive welfare, understanding the preferences and motivations of cattle for resources expected to promote positive emotional states would be welcome (e.g. social and maternal motivations; preferences for enrichment items, environmental complexity). Using consumer/demand approaches could aid in the quantitative and qualitative understanding of animal needs; however, these studies often have a smaller sample size due to their complexity.

[Go to poster](#)

Comment on poster: [#farm-animals](#) @Emma Jensen

[Back](#)

UFAW Online Animal Welfare Conference 2023



UFAW
SCIENCE IN THE SERVICE
OF ANIMAL WELFARE

UFAW Online Animal Welfare Conference
2023

 20 - 21 June 2023

 Online

Scientific Programme