

## **Perception vs. reality: society's views of cattle production**

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### **Introduction:**

We face increasing criticism for how we treat our cattle, but too often, we believe that the public's perception does not equal reality. What do the public really think, and why? Do their views matter, and can we change their perception? Concerns over the quality of life of animals are generally based on subjective views that combine any or all of: basic health and functioning; natural living; and affective states (Fraser et al., 1997; von Keyserlingk et al., 2009). As animal keepers and veterinary surgeons, we focus on biological functioning to ensure the optimal health of the animal. But other stakeholders judge welfare by other aspects, such as whether the animals have access to straw and the outdoors, or how naturally they live (de Greef et al., 2006).

### **Materials and methods:**

To understand the priorities of the public better, we asked 2,054 UK citizens to rank 17 attributes relating to dairy cow management and milk production using the novel application of 'best worst scaling', a discrete choice methodology that allows a trade-off between items.

### **Results:**

Hierarchical Bayesian analysis of survey results revealed (i) access to grazing; (ii) cow health and welfare; and (iii) cow comfort were of equal top importance. However, six groups within the sample, identified through latent class analysis, expressed significantly different priorities. Each group had different indicative characteristics as established through a multinomial logistic model.

### **Discussion and Conclusion:**

We concluded that preferences were likely to be driven by different understandings of the attributes examined, as well as different values and motivations, and varying familiarity and knowledge. Early observations from follow-up interviews with a subset of the sample confirm: strong support for the 'maximal care' model of 'winter inside, summer outside'; support for open space and open fields; comfort is often seen as an indoors construct – bedding, straw, warmth; health and avoidance of injury or pain are viewed as a 'given' and 'implicit'. Housing dairy cows year-round is still seen as a proxy for poor welfare, and being outside all the time as natural. Rather than assuming a knowledge deficit model – that educating people will solve any mismatch of perception vs reality – we should accept that citizens and consumers have their own 'truth' and a valid role to play in shaping farming. We should therefore try to accommodate aspects that improve transparency and trust, provided they do not compromise scientific integrity and real welfare.

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