

## **Many factors affect the preference of high-yielding dairy cows for pasture vs cubicle housing**

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The public and animal welfare campaign groups have expressed concerns over the continuous, year-round housing of dairy cows, and some European countries require cows to spend at least part of the year at pasture. However, what do the cows want? Research at Harper Adams University (UK) has shown that many factors influence the preference of high-yielding dairy cows for pasture versus cubicle housing. Cows show a stronger preference for housing when it is raining and preference for housing increases as the weather turns colder and wetter in the autumn/early winter. During the day, the proportion of time cows spent at pasture declined the further they had to walk, but this was not the case at night. This indicates that cows are more motivated for pasture access at night. Herbage mass did not affect cow preference for pasture, suggesting that grazing is not the main factor influencing preference for pasture and that the cows were using it more for loafing or lying. Previous experience has a big effect on cow preference, as heifers reared without experience of pasture initially show a strong preference for cubicle housing. This preference for housing is even more pronounced in lactating cows reared without experience of pasture. When animals without pasture experience are first exposed to grass they do not exhibit normal grazing behaviour i.e. grazing has to be learned. However, once heifers have experienced pasture, they learn to graze and also go on to show a preference for pasture. Cows given free access between pasture and cubicle housing produced more milk than those that were continuously housed. Only part of this higher yield could be attributed to grass intake, and the remaining yield benefit could be due to increased lying behaviour, cow comfort and/or lower stress levels in cows with the choice between pasture and housing. These results suggest that providing cows with free access between pasture and cubicle housing represents the current 'Gold Standard' in terms of cow welfare. However, further research is needed to determine whether or not housing can be modified to meet the needs of cows.

### **Acknowledgements**

This article is based upon work from COST Action FA1308 DairyCare, supported by COST (European Cooperation in Science and Technology, [www.cost.eu](http://www.cost.eu)). COST is a funding agency for research and innovation networks. COST Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.