Play for Life: promoting play in adult farmed animals

Supervisory team:
Main supervisor: Dr Suzanne Held (University of Bristol)
Second supervisor: Dr Siobhan Mullan (University of Bristol)
Non-academic (CASE) supervisor: Ms Kate Still (Soil Association)

Host institution: University of Bristol
CASE partner: Soil Association

Project description:
Research and innovation in the UK livestock sector is currently driven by the dual challenges of reducing net carbon emission whilst maintaining high welfare and productivity standards. Precision livestock farming and machine-vision based AI approaches have been at the forefront of R&D efforts to meet this challenge, focusing on high-tech, data-driven diagnostic solutions. We will here investigate a complementary, bio-based and low-tech interventional approach aimed at improving adult livestock welfare, 'all else being equal' - that is, it will be applicable to current and future high- and low-tech farming systems emerging as best meeting low-carbon-emissions goals. Our approach is aimed simply at promoting playing in adult livestock which naturally play less than their offspring but typically spend more of their lives on farms - starting with cows and sows. It builds on findings from human medicine, psychiatry/psychology, human and animal developmental biology, yet focuses specifically on improving adult livestock welfare.

Play in humans and animals improves as well as reflects welfare. In children, it is routinely harnessed in the therapy of physical and mental disorders. In adult humans it, similarly, is positively associated with better long-term mental and physical health ('welfare') outcomes, whether as a therapeutic intervention or correlation. In adult animals, play can be triggered by a range of stimuli or is spontaneously expressed in certain conditions. It is also known to always be associated with a lift in welfare whilst the animal plays. We hypothesize that, as in humans, welfare outcomes in adult farm animals can also lastingly be improved by increasing play opportunities. To gather evidence, this studentship will determine (i) the conditions that promote spontaneous play and (ii) whether increased play opportunities translate into better welfare outcomes in adult livestock. A final aim will be to promote the uptake of initiatives to increase play in these animals.

The project would suit an animal sciences/agriculture or biology/zoology student interested in innovative high-welfare interventions in sustainable animal production systems, and can be done part-time. The student will be based in the world-leading Animal Welfare and Behaviour Research community at Bristol Vet School (https://www.bristol.ac.uk/vet-school/research/welfare-behaviour/) with behavioural biologist Dr Suzanne Held, welfare scientist and vet Dr Siobhan Mullan and Kate Still, Head of Farming at the Soil Association (CASE Partner). They will acquire the research and engagement skills needed for developing and implementing the future farm practices that deliver reduced carbon-footprints whilst maintaining high welfare in their adult livestock.

Our aim as the SWBio DTP is to support students from a range of backgrounds and circumstances. Where needed, we will work with you to take into consideration reasonable project adaptations (for example to support caring responsibilities, disabilities, other significant personal circumstances) as well as flexible working and part-time study requests, to enable greater access to a PhD. All our supervisors support us with this aim, so please feel comfortable in discussing further with the listed PhD project supervisor to see what is feasible.