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Exploring the potential of play behaviour as an animal welfare indicator

Play behaviour has been proposed to be **an indicator of animal welfare**. As part of the ClearFarm research, the validity of play behaviour in weaner pigs is currently investigated as an animal welfare measure. To do so, the team explores the relationship between play behaviour and broadly used welfare measures, such as weight gain, stress hormones, presence of disease and injuries, and feeding behaviour. The researchers also assess the relationship of play behaviour with novel behavioural measures related to emotions such as tail posture and tail motion.

More stress, less play

In nature, sows decrease their nursing activity gradually and pigs are naturally weaned when they are 4-to-5 months old. However, pigs raised in modern production systems shift from milk to solid feed much earlier, as they are abruptly weaned from their sow at approximately 3 to 5 weeks of age.

A ClearFarm study demonstrated that pigs weaned at approximately 26 days of age showed a drastic reduction in time spent playing in the first 24 h after weaning compared to before weaning. However, the study also showed that weaning stress was reduced by keeping litters socially intact in their familiar environment after weaning, as indicated by a less pronounced reduction in time spent playing from the day before weaning to the day after weaning and a stepper increase in time spent playing on the second day after weaning.

These findings illustrate a suppression of play behaviour when pigs experience hunger and social instability, and a higher engagement in playing when social conditions are more stable. In fact, early weaning is a management practice known to inflict nutritional, physiological, and psychological stress in pigs, constituting a suitable context for examining the relationship of play behaviour with other animal welfare measures.

With this, **ClearFarm** will advance the understanding and validation of play behaviour as an animal welfare indicator and potentially promote the use of play behaviour in on-farm welfare assessment protocols.

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