Determining the Optimum Space Allowance for Nursery Pigs

▸ Jennifer Brown, Prairie Swine Centre

The main objective of this study is to establish a precise value for the minimum space allowance for nursery pigs, one which provides an optimal and scientifically defensible balance between profitability and animal welfare.

Summary

The quantity of space provided substantially affects pig welfare by influencing behaviour, stress and social interactions, and has significant economic impacts on productivity and the total pig throughput possible on a farm. While significant research results on the effects of space allowances in grow-finish pigs are available, very little is known in nursery pigs.

In this project, the researchers will:

- determine the effect of space allowance at two group sizes on nursery pig growth, feed efficiency and health, and investigate any interaction with season;
- determine the effect of space allowance on behaviour, in particular the amount of space required to accommodate normal resting postures;
- use break-point analysis to identify the minimum space allowance giving maximum average daily gain for nursery pigs in commercial farms;
- carry out an economic analysis incorporating pig performance and housing cost to identify the most cost- effective strategy for managing the space allowance of nursery pigs on commercial farms.

Collaborators

Denise Beaulieu	Prairie Swine Centre
Yolande Seddon	
Dan Bussières	Groupe Cérès inc.
Sandra Edwards	Newcastle University, United Kingdom