Poster presentation:

Lower stocking density in pigs: welfare, growth rate, and meat quality

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Space allowance is a crucial factor in the welfare of fattening pigs. European Union regulations define minimum space requirements for pigs at different growth stages to ensure animal well-being.

This study aimed to investigate the effects of different space allowances on growth performance, carcass traits, and meat quality in commercial hybrid pigs.

Two experiments were conducted using 102 and 80 pigs, respectively, with three different space allowances: the current minimum (1.0 m^2/pig), a planned increase (1.5 m^2/pig), and a doubled space allowance (2.0 m^2/pig). Pigs were housed in intensive systems.

Key parameters collected before and after slaughter included average daily gain (ADG), final body weight, carcass characteristics and intrinsic meat qualities such as pH, texture, water-holding capacity, and fatty acid composition.

Results demonstrated that pigs with 1.5 m^2/pig exhibited the highest ADG in both experiments, suggesting that moderate increases in space benefit growth performance without significantly impacting slaughter weight. Differences in carcass traits were noted primarily between sexes rather than space groups.

Meat quality parameters, including pH, water-holding capacity, and texture, showed minimal variation across space allowances, aligning with previous studies that found limited impact of indoor space modifications on pork quality. The fatty acid profile also remained largely unchanged across groups, indicating that increased space alone does not significantly alter meat composition.

Overall, the findings suggest that while increased space allowance improves growth performance, particularly at 1.5 m^2/pig, it does not substantially enhance meat quality. Future research should explore economic feasibility and consumer willingness to pay for welfare-improved pork products to support policy changes.

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No 101000344.

28.08.2025