

Feeding and Social Behaviour of Finishing Pigs in Fully Slatted Large Groups

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Summary

In this study we investigated feeding and social behaviours of grower-finisher pigs in larger groups, which are becoming popular among producers in North America. Pigs displayed some significant changes to feeding behaviour immediately following grouping into larger groups. However, long-term effects on feeding and other social behaviours were not apparent by the formation of pigs into larger groups.

Introduction

Most studies into feeding and social behaviours of pigs have been limited to relatively small group sizes (<40 pigs/group). However, these group sizes are much smaller than some that are now used in commercial operations in North America and elsewhere. The social dynamics of feeding and other behaviours of pigs in large social groups is not well understood, but it could be argued that the pigs may adapt themselves differently in larger groups compared to those in smaller social groups. Any adverse changes to feeding and social behaviours of pigs in larger groups may directly impair overall productivity and therefore welfare of animals. The main objective of the present study was to gain an insight into the feeding and social behaviours of grower-finisher pigs which are formed into larger social groups.

Experimental Procedures

Two blocks, each comprising four pens of 18 pigs (SG) and two pens of 108 pigs (LG) on fully slatted floors (0.76 m²/pig) were used in the experiment. The initial body weights of pigs averaged 34.6 ± 4.1 kg. An equal numbers of barrows and gilts (1:1) were used in each pen. Pigs were fed from multi-space wet/dry feeders, with a pig to feeder space ratio of 9:1. The individual pig feeding



behaviour and group feeding patterns were studied during weeks 1, 5, 7 and 10 of the grower-finisher cycle. In addition, other behavioural activities such as percentage of time spent on eating/drinking, resting and standing/walking and diurnal patterns of these activities of pigs in both large and small groups were studied during weeks 2, 5 and 10 following re-grouping.

“Managing access to feeders in a large group system is critically important upon grouping.”

Results and Discussion

The pigs in LG had more feeding bouts (35 vs. 25, $P<0.05$) and the bouts were shorter in duration (232 vs. 301 sec, $P<0.05$) during day 3 following re-grouping. No differences in feeding bouts and bout lengths were found during weeks 5, 7 and 10. More importantly, we found that the percentage of pigs queuing at the feeders to be high in LG than SG during day 3 (0.90 vs. 0.59, $P<0.05$), and there was a trend ($P=0.08$) for the percentage of pigs queuing at feeders to be high in LG than SG during day 6. There were similar 24 hr group feeding patterns in pigs of both SG and LG during weeks 1, 5, 7 and 10 (Figures 1 and 2). The average times spent on eating/drinking (5.2 vs. 5.2 %, for SG and LG), standing/walking (5.1 vs. 5.4 %, for SG and LG) and resting (89.6 vs. 89.3 %, for SG and LG) did not differ between the two group sizes. Furthermore, the diurnal patterns of these activities were also not affected by group size.

Conclusion

The feeding behaviours of pigs were disturbed immediately following re-grouping into larger groups. Pigs in larger groups seemed to take additional time to adapt their feeding behaviours as indicated by the similar patterns observed later in their grower-finisher cycle. Management of feeding behaviour in terms of accessing feeders may be critical immediately following formation of pigs into larger groups.

Acknowledgements

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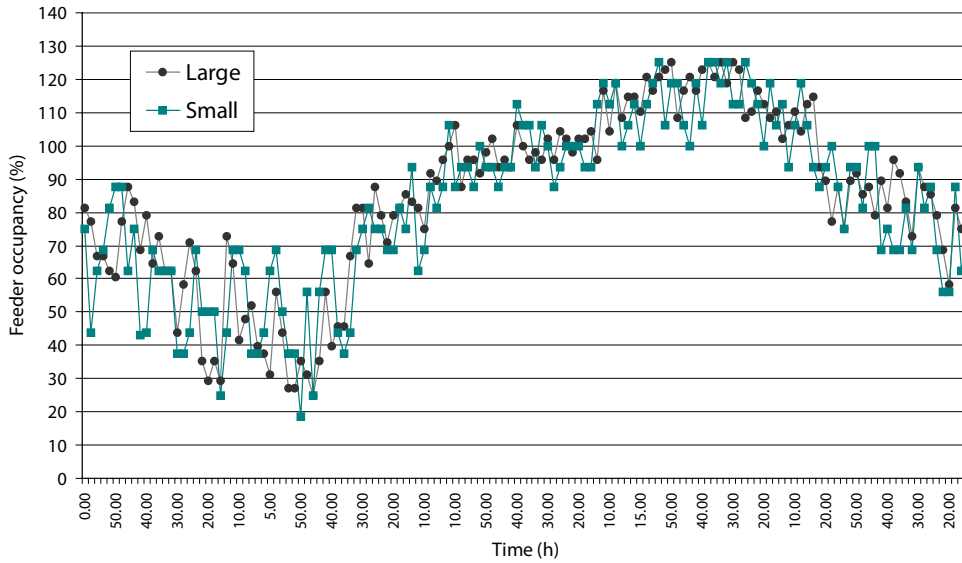


Figure 1. Daily feeding pattern of pigs at day 3 following group formations.

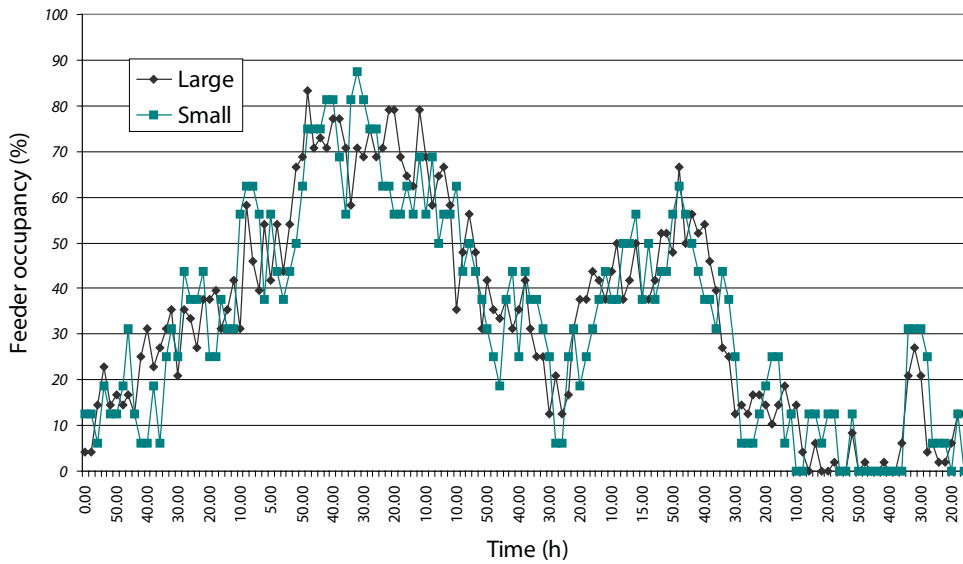


Figure 2. Daily feeding pattern of pigs during week 10 following group formations.